EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 57

Driving Response in Hidradenitis Suppurativa: Therapeutic Targeting of Plasma Cells by Upadacitinib

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is an inflammatory skin disease characterized by recurrent or chronic painful or suppurative lesions most commonly present in the axilla, inguinal, and anogenital regions. These lesions are heavily infiltrated by immune cells, predominantly plasma cells, B cells, and neutrophils.1 Upadacitinib (UPA), an oral selective Janus kinase inhibitor, is under investigation for the treatment of moderate-to-severe HS. Utilizing circulating biomarker analysis, we analyzed changes in known pathogenic drivers of HS among patients treated with UPA.

Materials & Methods:

Here we investigated biomarker data from the previously reported phase 2, placebo-controlled study (NCT04430855) that evaluated the efficacy and safety of once-daily oral UPA 30 mg vs placebo in patients with moderate-to-severe HS. This study period included a 35-day screening period, a 52-week treatment period, and a 30day follow-up visit after the last dose of the study drug. Biomarker levels in circulation were assessed at baseline, week 4 and week 12 using proteomics, flow cytometry, and whole blood transcriptomics. Analyses of proteomic data utilized a repeated measures linear mixed model to account for the dependent relationship over time. Proteins with False Discovery Rate < 0.1 were considered as significant biomarkers. Kyoto Encyclopedia of Genes and Genomes enrichment analysis was performed on significant biomarkers. For analyses of flow cytometry data, estimated mean changes from baseline were modeled using a mixed model for repeated measurement method, adjusting for baseline value of the biomarker.

Results:

At baseline, proteins associated with B-cell (CCL7, CXCL13, CCL18, CCL19, CCL21, HGF) function were significantly increased in patients with HS as compared with healthy volunteers (adjusted $P < .05$). Treatment with UPA significantly decreased CCL18, CCL19, CCL21, BAFF and FASLG levels by week 4, with reductions maintained through week 12 (adjusted $P < .05$).** Higher plasma cell and short-lived plasma cell counts at baseline correlated with response to UPA at week 12. Patients who achieved a ≥50% reduction from baseline in HS Clinical Response scores (HiSCR50) at week 12 had a greater reduction in circulating plasma cells and short-lived plasma cells by week 4 as compared with UPA non-responders or patients receiving placebo. Patients treated with UPA also showed a significant reduction in total IgG vs patients receiving placebo ($P < .05$). Increases in circulating B cell levels, including memory B cells, were observed after UPA treatment, with a concomitant increase in expression of CD19, CD79A/B, and CXCR5 as well as enrichment of memory and naïve B cell signatures. Reductions were also observed after UPA treatment in the type 1 interferon proteins CXCL9 and CXCL10.

Conclusion:

Overall, these findings suggest that circulating levels of proteins associated with B cell function are reflective of biology in the HS skin and that UPA is likely modulating B cell trafficking into inflamed HS tissue. Further, the rapid

and sustained reduction in proteins associated with type 1 interferon responses following UPA treatment supports previous observations suggesting a critical role for this pathway in HS pathology.

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Abstract N°: 58

Psychometric Evaluation of the Hidradenitis Suppurativa Symptom Assessment (HSSA) in Patients With Moderate-to-Severe Hidradenitis Suppurativa: Data From a Randomized, Phase 2 Upadacitinib Trial

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic cutaneous disease characterized by painful nodules, fistulas, and abscesses. The Hidradenitis Suppurativa Symptom Assessment (HSSA) assesses HS-related signs and symptoms in adults (≥ 18 years) and adolescents (12–17 years) who have moderate-to-severe HS. In this study, the psychometric performance of the HSSA scores generated from a phase 2 clinical trial was evaluated.

Materials & Methods:

The HSSA is a 9-item questionnaire assessing 9 different signs and symptoms of HS, including worst pain, worst drainage, odor, as well as skin redness, tenderness, swelling, hardness, heat, and itchiness during the past 24 hours. Each item is scored on an 11point numeric rating scale ranging from 0–10, where 0 represents "No (sign/symptom) at all" and 10 represents an "Extreme (sign/symptom)." The daily HSSA Total Symptom score is the average of the items collected on the same day, provided that at least 5 item scores are available from that day. A weekly total symptom score is the average of the daily total symptom scores over a 7-day period, provided that at least 4 daily scores are available from that week. The HSSA was administered in a phase 2, multicenter, randomized, double-blind trial investigating upadacitinib in adults with moderate-to-severe HS (NCT04430855) to evaluate treatment efficacy using weekly scores collected in the 7 days before baseline and weeks 2, 4, 8, 12, 16, 24, and 48 of the study.

Results:

Analyses included data from 67 adults (mean [SD] age, 36.8 (11.9) years; 77.6% female; 61.2% White; 47.8%, Hurley stage III). Descriptively, patients used the full range of response options (0–10) for all items across each time point with patients reporting the most severe symptoms of HS (mean [SD]) to be skin tenderness (5.3 [3.0]) and worst skin pain (5.0 [2.9]) at baseline. Internal consistency reliability for the weekly HSSA Total Score and weekly odor score was excellent across baseline and all time points ($\alpha \geq 0.96$). Test-retest reliability using the intraclass correlation coefficient evaluated in 2 prespecified "stable" samples was also excellent for the weekly HSSA Total Symptom score (≥ 0.89) and weekly odor score (≥ 0.91; **Table**). In terms of construct-related validity, weekly HSSA Total Symptom scores at all time points related very strongly with Patient Global Impression of Skin Pain (PGA-SP) scores ($r \geq 0.90$), strongly with overall Hidradenitis Suppurativa Impact Assessment (HSIA) score ($r \geq 0.76$), and moderately with clinical counts of abscesses ($r \geq 0.35$) and draining fistulas ($r \geq 0.40$). Similarly, weekly HSSA Total Symptom scores changed in concert with PGA-SP scores ($r = 0.88$), overall HSIA score ($r = 0.54$), and total lesion counts ($r = 0.33$) at Week 12. Though sample size limited confidence in group comparisons, known-groups analyses suggest the weekly HSSA Total Symptom score can distinguish among clinically distinct groups based on clinical disease severity categories.

Conclusion:

The present analysis indicated that HS patients experience a range of symptoms, that the weekly HSSA Total Symptom and odor scores are reliable for use in research settings, and that valid inferences about patients' HS symptom experience can be made from those scores. These results will be of immediate value for researchers interested in evaluating the effects of treatment on HS symptoms among patients with moderate-to-severe HS.

Table. Psychometric Properties of the HSSA

Assessment	Weekly Total Symptom Score	Weekly Odor Item Score
Reliability		
Test-retest, ICC		
Same IHS4, BL to Wk 2	0.89	0.91
Same IHS4, Wk 2–4	0.92	0.93
Same PGA Skin Pain, BL to Wk 2	0.90	0.91
Same PGA Skin Pain, Wk 2–4	0.93	0.93
Validity		
Concurrent validity, Spearman's coefficient between HSSA and other instruments at Wk 12		
PGA Skin Pain	0.92	0.61
Hurley stage	0.43	0.49
Lesion count	0.51	0.37
IHS4 score	0.60	0.49
DLQI total score	0.73	0.46
HSIA overall score	0.88	-0.21
Known-groups validity, known-groups mean (SD)		
Wk 12 HS total lesion count		
First tertile	1.6 (1.5)	1.0 (1.5)
Second tertile	4.0 (2.3)	3.7 (3.6)
Third tertile	4.3 (2.4)	3.7 (3.5)
Wk 12 IHS4 categories		
Mild	1.2 (1.0)	0.4 (0.8)
Moderate	2.8 (1.9)	1.7 (2.2)
Severe	4.2 (2.5)	4.0 (3.5)
Wk 12 Hurley stage		
Stage I	2.2 (3.2)	0.3 (0.5)
Stage II	3.0 (2.3)	2.2 (2.8)
Stage III	4.9 (2.4)	4.9 (3.5)

BL, baseline; DLQI, Dermatology Life Quality Index; HS, hidradenitis suppurativa; HSIA, Hidradenitis Suppurativa Impact Assessment; HSSA, Hidradenitis Suppurativa Symptom Assessment; ICC, intraclass correlation; IHS4, International Hidradenitis Suppurativa Severity Score System; PGA, Patient Global Assessment; Wk, week.

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Abstract N°: 77

Association of lipid profile with severity of acne vulgaris: a matched case control study

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Introduction & Objectives:

The increase in levels of plasma cholesterol can be one of the predisposing factors for the onset of acne lesions because it leads to increased androgen production. However, population-based studies on the relation between dyslipidemia and acne vulgaris have divergent results.

This study aims to evaluate the association between lipid profile and the severity of acne vulgaris among patients in Tondo Medical Center.

Materials & Methods:

This case-control study involved a total of 54 patients according to severity of acne vulgaris as follows: (1) cases (moderate to severe acne vulgaris) and (2) controls (mild acne vulgaris). The severity classification were standardized using Lehmann criteria. Patients were characterized in terms of sociodemographic factors, clinical variables and laboratory parameters. The mean difference of the levels of triglyceride, total cholesterol, high-density lipoprotein (HDL), low-density lipoprotein (LDL), and very low-density lipoprotein (VLDL) across groups were determined. Moreover, the independent association between lipid profile and acne vulgaris severity were determined using multivariate regression analysis.

Results:

Triglycerides were found to be significantly different between patients with mild and moderate to severe acne (P=0.006). Other plasma lipids did not have significant difference between cases and controls.

Conclusion:

Lipid profile was found to have derangement specifically triglycerides and VLDL. Therefore, screening for lipid profile abnormalities could be considered in the management of acne vulgaris. As the results were contradicting with different literature, further investigations with larger populations are needed.

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Abstract N°: 97

The efficacy and safety of a radiofrequeny device for the treatment of Hidradenitis suppurativa: A 9-month follow-up study.

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Introduction & Objectives: Hidradenitis Suppurativa (HS) is a chronic and recurrent disease of the axilla and groin with inflammatory lesions. There is no definitive medication or intervention to cure the disease. Radiofrequency (RF) is a modality to destroy the lesions by transferring heat into the skin. To date, few studies have been conducted to evaluate the efficacy and safety of RF at HS.

Materials & Methods: This 9-month, prospective, nonrandomized, and single-blinded study is a clinical trial conducted in 10 patients with refractory HS. In all patients, the initial grade of HS was evaluated. The procedure involved treating HS of the axilla with a endo-RF wave device. Post-treatment evaluation included: Determination of the severity of the disease by a blinded dermatologist, the degree of patient satisfaction, tolerability in each patient, and complications of the procedure. We also evaluate the recurrence of the disease during a 6-month follow-up.

Results: The satisfaction level after the intervention among under-studied cases was excellent and good in 6 of cases. There was a significant difference in comparing the grading score of patients before and three months after receiving RF (P-value: 0.01). Regarding tolerability, 8 of the patients could tolerate it. We had no complication after the intervention and 4 cases had not recurrence during a 6-month follow-up.

Conclusion: Endo-RF is an effective and safe modality for treating HS however to prevent the recurrence, periodic therapy sessions are needed.

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Abstract N°: 142

Predictive Factors of Acne Scarring and Post-Acne Hyperpigmentation: A Retrospective Cohort Study

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Predictive Factors of Acne Scarring and Post-Acne Hyperpigmentation

Dhaii Alzahrani, Ghadi Alharbi, Rami Jan, Lulu Alsubaie, Amjad Alghamdi, Awadh Alamri

Introduction & Objectives: ** Acne vulgaris, a prevalent dermatological condition, often results in long-term complications such as scarring and hyperpigmentation. While extensive research has focused on treatment modalities, there is a notable gap in understanding the factors contributing to the development of acne scarring and post-acne hyperpigmentation.This study aimed to identify predictive factors associated with these complications among Acne Vulgaris patients.

Materials & Methods:

This retrospective cohort study, conducted at King Abdulaziz Medical City, Jeddah, Saudi Arabia, analyzed data from 417 patients with Acne Vulgaris between 2016 and 2023. Patients aged 18 and older were included. Patients diagnosed with other types of acne, incomplete data, or who lost follow up were excluded. A comprehensive dataset was obtained from the hospital's health information system, BESTCare. Statistical analysis was performed using RStudio.

Statistical significance was considered at $p < 0.05$.

Results: ** The majority of the 417 analyzed patients were female (79.1%), with a mean age of 25.58 years. Acne complications included scarring (22.8%), post-inflammatory hyperpigmentation (PIH) (22.3%), and a combination of both (36.2%). Smoking showed a significant association with acne complications ($p=0.004$), particularly with scarring only (7.4%) and scarring with PIH (4.0%). Acne severity exhibited a significant difference among groups ($p<0.001$), with those experiencing both scarring and post-inflammatory hyperpigmentation having a higher proportion of severe acne (21.6%). Isotretinoin use demonstrated a highly significant association with post-inflammatory hyperpigmentation only (69.5%, $p<0.001$). Vitamin D levels varied significantly among complication groups ($p<0.001$).

While hemoglobin (Hgb) levels differed significantly among the acne complications groups , with the no scarring or post-inflammatory hyperpigmentation group having a higher mean value compared to acne scarring only , post-inflammatory hyperpigmentation only , and acne scarring and post-inflammatory hyperpigmentation .

Multinomial logistic regression identified adapalene gel as protective against scarring only, while isotretinoin use

and high ALT were risk factors for scarring with Post-inflammatory hyperpigmentation.

Conclusion:

This retrospectives study sheds light on factors influencing acne scarring and post-inflammatory hyperpigmentation among Acne Vulgaris patients. Notably, the severity of acne, low vitamin D, and HgB levels,

and isotretinoin use were associated with complications. While Adapalene gel

exhibited a protective effect against scarring. These findings provide valuable insights for tailoring interventions and advancing our understanding of acne vulgaris complications in the future.

Ultimately, identifying and addressing these predictive factors can help improve the management and outcomes of Acne Vulgaris patients, reducing the burden of long-term complications such as scarring and hyperpigmentation.

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Abstract N°: 168

Evaluation and comparison of the efficacy and safety of cross-linked and non-cross-linked hyaluronic acid in combination with botulinum toxin type A in the treatment of atrophic acne scars: A double blind randomized clinical trial

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Introduction & Objectives: Acne vulgaris is a common skin condition that affects a significant percentage of adolescents, with scarring being one of its permanent complications. This study aims to compare the efficacy and safety of using botulinum toxin type A (BTA) in combination with cross-linked and non-cross-linked hyaluronic acid (HA) for the treatment of atrophic acne scars.

Materials & Methods: Our study is a randomized, double-blind clinical trial conducted on 16 patients with atrophic acne scars. The patients were randomly assigned to one of two groups: one group received a single session of BTA and crossed link HA combination, while the other group received two sessions of BTA and non-crossed link HA, one month apart. The patients were followed up at 3 and 6 months after baseline to evaluate the number and area of fine and large pores and spots, scar grading, patient satisfaction, and complications.

Results: The mean age of individuals in both the cross-linked HA and non-cross-linked HA groups was 32.75±4.26 and 31.50±8.48, respectively (P: 0.71). In terms of gender, 3 (37.5%) and 7 (87.5%) individuals in the cross-linked and non-cross-linked HA groups were female, respectively (P: 0.11). There were no significant differences in the count and area of fine and large pores and spots between the two groups at baseline and the first follow-up session. However, in the second follow-up session, the non-cross-linked HA group had significantly better results than the cross-linked HA group in terms of large pores count and area (p: 0.01). In terms of changes over time, the non-cross-linked HA group showed significantly better improvements in the count and area of large pores compared to the cross-linked HA group (p: 0.03). Additionally, both groups experienced a significant decrease in the count and area of fine pores over time (p: 0.001), but the amount of changes was not statistically significant between the two groups (p: 0.06). Concerning acne grade, initially, 62.5% and 12.5% of cases in the cross-linked HA and non-cross-linked HA groups, respectively, had severe grades. However, in the last session, these percentages significantly decreased to 0% for both groups (p: 0.002 and 0.005, respectively). In terms of treatment complications, none of the patients experienced any adverse effects.

Conclusion: The study demonstrated that both cross-linked HA and non-cross-linked HA were effective in reducing acne severity and improving the appearance of pores and spots. The treatments had similar effects on fine pores, spots, and overall acne severity. However, non-cross-linked HA appeared to have a better result on large pores compared to cross-linked HA.

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Abstract N°: 180

Understanding the experiences of living with pain in patients with HS: Results from the HS Uncovered patient survey from the United Kingdom

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, painful inflammatory disease affecting ~1.19% of the population in the United Kingdom (UK).1,2 Although patients with HS consider pain to be the most bothersome symptom,2 there is a lack of information on HS-related pain in the UK population. Limited clinical training in pain management further exacerbates the situation.3 HS Uncovered was a global real-world survey assessing the unmet needs of patients with HS. Herein, we present findings from the survey on HS-related pain among participants in the UK.

Materials & Methods:

A 35-min online survey was conducted between December 2022 and March 2023. The survey included questions focusing on the treatment and management of HS, as well as the burden of HS. The Dermatology Life Quality Index tool was used to evaluate the impact of HS on quality of life (QoL). Adults who self-reported a diagnosis or a suspected diagnosis of HS were included. Here, we report the results for patients with diagnosed HS.

Results:

The survey included 100 patients from the UK, of these, 80 had diagnosed HS. Mean patient age was 42 years; the majority were White (80.0%) and female (69%). Overall (N=100), 51% of patients described the current severity of HS or HS-related symptoms as moderate, while 10% described it as severe. Eczema (35.0%), acne (28%), arthritis (28%) and psoriasis (17.0%) were the most frequently reported comorbidities related to HS. As an initial symptom of HS, 66% of patients reported the presence of painful nodules/spots, 58% reported the presence of abscesses (painful lumps filled with fluid or not) and 63% reported experiencing pain in the affected areas. For initial symptom relief, 50% of patients used painkillers, 41% drained the abscesses by squeezing/pricking and 25% treated the painful lumps with heat. Pain was the primary reason to seek medical help in most patients (75%). Overall, 53% of patients reported experiencing itchy, sore, painful and stinging skin, which affected their QoL. Additionally, 63% of patients reported that their ability to socialise was affected, while 43% had to stay in bed/at home because of pain (**Figure 1**). Most patients (61%) reported that they were aware of painkillers as a treatment. Overall, 31% of patients received painkillers as their current treatment, while 26% had previously received painkillers for HS. Only 5% of the diagnosed patients received painkillers as a main treatment option for HS. Overall, 63% of patients considered pain relief as the most important feature of treatment.

Conclusion:

Pain is a bothersome symptom and has a substantial effect on QoL. Despite the availability of different treatments at the time of the survey, patients reported that they experienced a lot of pain. This highlights the important unmet need for effective treatments that provide sustained pain relief, which will reduce reliance on temporary pain medications.

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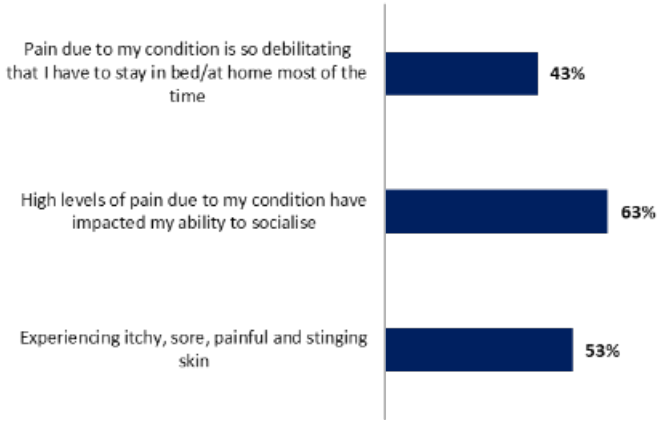
Figure 1: Impact of pain on QoL in patients with HS



HS, hidradenitis suppurativa; QoL, quality of life.

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Abstract N°: 202

Oral Isotretinoin with Desloratadine versus Isotretinoin Alone in The Treatment of Acne Vulgaris

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Introduction & Objectives:

Although isotretinoin is a very effective medication for the treatment of acne, its association with several complications necessitates the precise selection of patients. Desloratadine is a second-generation non-sedating oral antihistamine with proven efficacy and safety in treatment of acne vulgaris.

Objective: to compare the efficacy and safety of using combined oral isotretinoin with desloratadine versus isotretinoin alone in treatment of acne vulgaris patients.

Materials & Methods:

Our randomized clinical study was conducted on 48 patients with acne vulgaris. The severity of acne was scored according to the global acne grading system (GAGS). Serum lipid profile and liver function test were evaluated before start the therapy and repeated monthly for 3 months. Hepatic ,hyperlidemic ,pregnant ,lactating patients were not selected.The patients were divided into three groups: Group 1: received high dose of oral isotretinoin 40 mg daily combined with desloratadine 5mg daily for 3 months, Group 2: received low dose of oral isotretinoin 10 mg daily combined with desloratadine 5mg daily for 3 months, and Group 3: received oral isotretinoin alone 40 mg daily daily for 3months. All patients were assessed at the beginning of treatment,monthly during treatment and at the end of treatment.

Results:

There was no statistical significance difference between the studied groups in GAGS score pre or post treatment but there was a highly statistical significance decrease in GAGS score post compared to pre in each group. There was an increase in frequency of complication among Group I but without statistical significance difference.

Conclusion:

Combination of low dose of oral isotretinoin 10 mg daily with desloratadine is an effective protocol in acne treatment with less complications than the high dose of oral isotretinoin 40 mg daily with or without desloratidine.

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Abstract N°: 232

Inflammatory lesion resolution with the IL-17A- and IL-17F-inhibiting Nanobody sonelokimab in patients with moderate-to-severe hidradenitis suppurativa (HS): Week 24 results from the global, randomized, double-blind, placebo-controlled Phase 2 MIRA trial

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Introduction & Objectives: Sonelokimab is a novel humanized Nanobody designed to inhibit IL-17A and IL-17F and penetrate difficult-to-reach sites of inflammation. In the MIRA trial, a significantly higher proportion of patients receiving sonelokimab (120mg, 43.3%, $P<0.001$; 240mg, 34.8%, $P=0.007$; ITT-NRI) achieved the evolving gold standard threshold of HS Clinical Response (HiSCR) 75 (a ≥75% reduction from baseline in total abscess and/or inflammatory nodule [AN] count, with no increase in abscesses or draining tunnels [DT]) vs. placebo (14.7%) at Week (W) 12 as the primary endpoint. Sonelokimab 120mg has been selected as the dose for Phase 3 trials. Meaningful improvements in other lesion scores, alongside quality of life, skin pain, and symptom scores, were also reported. Here, we present the W24 results from the MIRA trial.

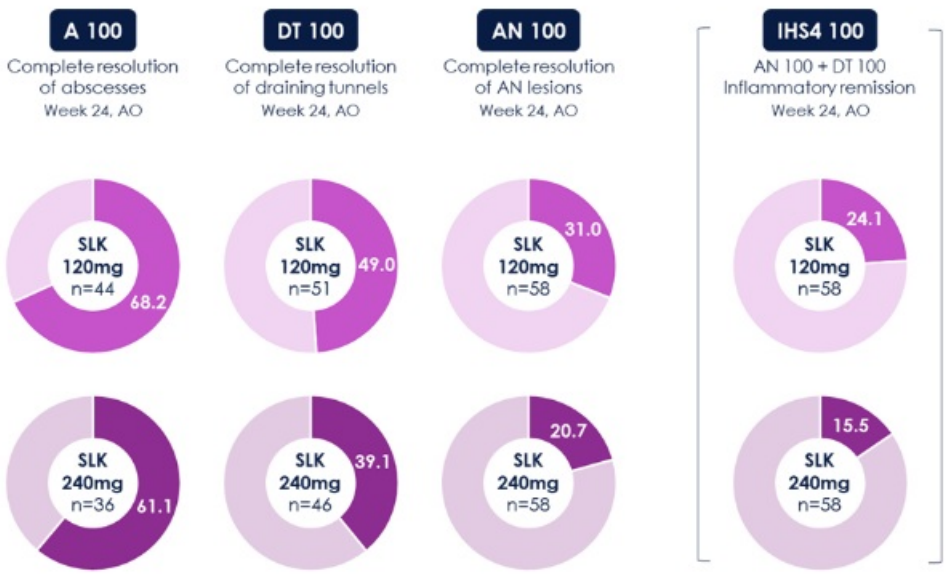
Materials & Methods: MIRA was a global, randomized, double-blind, placebo-controlled Phase 2 trial in patients with moderate-to-severe HS (NCT05322473). At W12, patients receiving sonelokimab (120mg or 240mg) continued their allocated dose and patients receiving placebo were rerandomized 1:1 to sonelokimab 120mg or 240mg. W24 outcomes (as observed; discontinuation rate <10%) included HiSCR 75/HiSCR 90, International HS Severity Score System (IHS4), AN and DT counts, as well as complete resolution of inflammatory lesions (AN 100 and DT 100) and complete inflammatory remission (IHS4 100). Patient-reported outcomes (PROs) included the Numerical Rating Scale (NRS) 30 for Patient Global Assessment of Skin Pain, minimal clinically important difference (MCID) in Dermatology Life Quality Index (DLQI), and Patient Global Impression of Severity (PGI-S).

Results: HiSCR 75 response continued to increase to W24 in patients receiving sonelokimab 120mg (56.9%; n=33/58), with improved responses also observed in HiSCR 90 (37.9%; n=22/58), and in mean percent change from baseline in IHS4 (–65.2%), abscess (A) count (–80.1%), AN count (–65.5%), and DT count (–49.9%).

Inflammatory lesion resolution was prevalent by W24 in patients receiving sonelokimab 120mg (**Figure**), with the majority of patients achieving complete resolution of abscesses (A 100; 68.2%), 49.0% achieving complete resolution of draining tunnels (DT 100), 31.0% achieving complete resolution of abscesses and/or inflammatory nodules (AN 100), and 24.1% achieving complete inflammatory remission (IHS4 100). Further improvements were also observed with sonelokimab 240mg, while crossover responses were consistent with patients randomized to receive sonelokimab at baseline. An exploratory, qualitative ultrasound substudy supported clinical outcomes, suggesting a reduction in tunnel size and dermal inflammation with sonelokimab. PROs were maintained or improved at W24, including skin pain (120mg, NRS 30: 45.7% [n=16/35]), DLQI MCID (120mg, 61.5% [n=32/52]), and PGI-S minimal or absent symptoms (120mg, 41.1% [n=23/56]). Sonelokimab was well tolerated with no unexpected safety findings.

Conclusion: Sonelokimab demonstrated substantially improved clinical efficacy to W24, as evidenced by high rates of inflammatory lesion resolution, and mirrored in sustained PRO responses. Based on these positive findings, the efficacy and safety of sonelokimab 120mg for the treatment of moderate-to-severe HS will be further examined in the Phase 3 VELA trials.

Figure. Inflammatory lesion resolution at W24



n refers to the number of patients with data at W24. At baseline, 67 and 66 patients were randomized to receive sonelokimab 120mg and 240mg, respectively.

Mean baseline abscess count: SLK 120mg, 3.8; SLK 240mg, 2.2. Mean baseline DT count: SLK 120mg, 3.7; SLK 240mg, 2.9. Mean baseline AN: SLK 120mg, 14.5; SLK 240mg, 12.3. Mean baseline IHS4: SLK 120mg, 33.1; SLK 240mg, 26.2.

A 100, complete resolution of abscesses; AN 100, complete resolution of abscesses and/or inflammatory nodules; AO, as observed; DT 100, complete resolution of draining tunnels; IHS4 100, complete inflammatory remission; SLK, sonelokimab; W, Week.

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Abstract N°: 266

Fungal and Candida Infections in Patients with Moderate to Severe Hidradenitis Suppurativa Treated With Secukinumab: A Post-Hoc Analysis of the SUNSHINE and SUNRISE Trials

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Introduction & Objective: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition characterized by painful nodules, abscesses, and draining tunnels. Patients with HS receiving IL-17 inhibitor therapy may have an increased risk of developing *Candida* or other fungal infections.1 Secukinumab (SEC), a fully human monoclonal antibody that selectively inhibits interleukin-17A, has previously demonstrated sustained efficacy and favorable safety in the treatment of patients with HS2 and is approved by the FDA and EMA to treat moderate to severe HS in adults. The objective of this post-hoc analysis is to describe the incidence and profile of fungal infections including candidiasis among patients with HS enrolled in the SUNSHINE and SUNRISE trials.

Materials & Methods: Patients with moderate to severe HS enrolled in the phase 3 SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) trials were randomized 1:1:1 to receive SEC 300 mg every 2 (SECQ2W) or 4 weeks (SECQ4W), or placebo (PBO).2 At week 16, patients receiving PBO were switched to SECQ2W or SECQ4W through Week 52 while patients randomized at baseline to receive either dose of SEC remained on the same treatment regimen. In this post hoc analysis, incidence of fungal infections including candidiasis are reported through Week 52. Characteristics of infections including the most frequent (defined by MedDRA preferred term), severity grades, and resolution are also reported through the entire treatment period. Infections occurring within and outside 2 weeks of any dose of systemic antibiotic are also reported through Week 52.

Results: Overall, 1084 patients were enrolled in the SUNSHINE and SUNRISE trials. At Week 16, the incidence of *Candida* infections was comparable in patients receiving either SECQ2W (1.9%), SECQ4W (1.7%), or PBO (1.7%) (**Table 1**). Rates of total fungal infections were also low in each treatment group at Week 16 (SECQ2W: 5.3%, SECQ4W: 3.9%, PBO: 2.8%). Through Week 52, the rate of *Candida* infections (Any SECQ2W: 5.5%; Any SECQ4W: 4.1%) and total fungal infections (Any SECQ2W: 12.0%; Any SECQ4W: 8.3%) remained infrequent. The most common fungal infections among patients receiving any SEC through Week 52 included skin candidiasis (1.7%), oral candidiasis (1.4%), vulvovaginal mycotic infection (1.4%), and vulvovaginal candidiasis (1.0%) (**Table 2**). Most fungal infections, including *Candida* infections, in patients receiving Any SEC through 52 weeks were either mild or moderate. Recovery rates throughout the study were high in patients with any fungal infection or *Candida* specifically, with 74.8% and 84.3% of patients, respectively, recovering before the end of the treatment period. Among patients receiving Any SEC during the entire treatment period, 22.4% of patients with at least one fungal infection and 21.6% of patients with at least one *Candida* infection experienced an infection within two weeks of treatment with a systemic antibiotic.

Conclusions: The rates of fungal infections including candidiasis were comparable between patients receiving either secukinumab or placebo up to Week 16, with only modest increases observed through Week 52. Infections that occurred during treatment with secukinumab were largely mild or moderate with a high proportion of infections achieving full resolution before the end of treatment.

References:

1. Davidson L, et al. *Lancet Reg Health-Eur*. 2022;13:100266.
2. Kimball AB, et al. *Lancet*. 2023;401:747-61.

Table 1. Fungal Infections Including *Candida* Infections Through Week 16

Infection type, n (%)[a,b]	SECQ2W (n=361)	SECQ4W (n=360)	PBO (n=363)
Fungal infections	19 (5.3)	14 (3.9)	10 (2.8)
Vulvovaginal mycotic infection	4 (1.1)	3 (0.8)	1 (0.3)
Fungal skin infection	3 (0.8)	1 (0.3)	0
Oral candidiasis	3 (0.8)	1 (0.3)	0
Skin candida	1 (0.3)	3 (0.8)	4 (1.1)
Vulvovaginal candidiasis	2 (0.6)	2 (0.6)	0
Tinea infection	2 (0.6)	0	0
Body tinea	0	1 (0.3)	0
Candida infection	1 (0.3)	0	1 (0.3)
Ear infection fungal	1 (0.3)	0	0
Genital infection fungal	0	1 (0.3)	0
Tinea cruris	0	1 (0.3)	1 (0.3)
Tinea pedis	0	1 (0.3)	1 (0.3)
Tinea versicolour	1 (0.3)	0	1 (0.3)
Tongue fungal infection	1 (0.3)	0	0
Balanitis candida	0	0	1 (0.3)
Candida infections (total)	7 (1.9)	6 (1.7)	6 (1.7)

MedDRA, Medical Dictionary of Regulatory Activities; PBO, placebo; Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab.
[a] MedDRA preferred term.
[b] A patient with multiple occurrences of an infection while receiving 1 treatment was counted only once in the infection category for that treatment.

Table 2. Fungal Infections Including *Candida* Infections Through Week 52

Infection type, n (%)[a,b]	Any SECQ2W (n=527)	Any SECQ4W (n=533)	Any SEC (n=1060)
Total fungal infections	63 (12.0)	44 (8.3)	107 (10.1)
Skin candida	11 (2.1)	7 (1.3)	18 (1.7)
Oral candidiasis	9 (1.7)	6 (1.1)	15 (1.4)
Vulvovaginal mycotic infection	8 (1.5)	7 (1.3)	15 (1.4)
Vulvovaginal candidiasis	6 (1.1)	5 (0.9)	11 (1.0)
Fungal skin infection	5 (0.9)	2 (0.4)	7 (0.7)
Fungal infection	4 (0.8)	2 (0.4)	6 (0.6)
Tinea pedis	4 (0.8)	2 (0.4)	6 (0.6)
Candida infection	3 (0.6)	2 (0.4)	5 (0.5)
Tinea cruris	0	4 (0.8)	4 (0.4)
Tinea versicolour	2 (0.4)	2 (0.4)	4 (0.4)
Body tinea	2 (0.4)	1 (0.2)	3 (0.3)
Dermatophytosis	1 (0.2)	2 (0.4)	3 (0.3)
Oral fungal infection	3 (0.6)	0	3 (0.3)
Tinea infection	3 (0.6)	0	3 (0.3)
Ear infection fungal	2 (0.4)	0	2 (0.2)
Fungal foot infection	2 (0.4)	0	2 (0.2)
Genital candidiasis	1 (0.2)	1 (0.2)	2 (0.2)
Mucocutaneous candidiasis	1 (0.2)	0	1 (0.1)
Oesophageal candidiasis	0	1 (0.2)	1 (0.1)
Onychomycosis	0	1 (0.2)	1 (0.1)
Otitis externa fungal	0	1 (0.2)	1 (0.1)
Tongue fungal infection	1 (0.2)	0	1 (0.1)
Trichophytosis	0	1 (0.2)	1 (0.1)
Urinary tract candidiasis	1 (0.2)	0	1 (0.1)
Candida infections	29 (5.5)	22 (4.1)	51 (4.8)

MedDRA, Medical Dictionary of Regulatory Activities; PBO, placebo; Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab.

[a] MedDRA preferred term.

[b] A patient with multiple occurrences of an infection while receiving 1 treatment was counted only once in the infection category for that treatment.

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Abstract N°: 378

Hidradenitis suppurativa and paradoxical psoriasis successfully treated with bimekizumab

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) and Psoriasis (PS) are chronic, immunomediated inflammatory skin conditions that can coexist and significantly impact quality of life. Bimekizumab (BKZ), targeting both IL-17A and IL-17F, is approved for treating both HS and PS, showing promising therapeutic potential. We present two cases of HS patients who developed a paradoxical psoriatic reaction after Adalimumab (ADA) treatment and were subsequently treated with BKZ.

Materials & Methods:

The first case is a 31-year-old non-smoking female with a decade history of inflamed nodules and fistulas in abdominal, inguinal, and axillary regions. She had a medical history of idiopathic hyperprolactinemia, subclinical hypothyroidism, and grade III obesity. Previous treatments, including topical and oral antibiotics, did not achieve a clinical response. Diagnosis revealed Hurley III stage HS, with baseline scores of IHS4 40, DLQI 25, and NRS pain 9. In September 2017, ADA was started at 80 mg every biweekly. After 15 months, HS was poorly controlled (IHS4 34, DLQI 24, NRS 9), and bright erythematous plaques suggestive of inverse PS appeared in the abdominal folds and intergluteal areas. Despite the paradoxical psoriatic reaction, ADA treatment continued due to limited alternatives for HS. In July 2023, due to poor control of both HS (IHS4 40, DLQI 26, NRS 9) and PS (PASI 4, BSA 3), off-label BKZ was initiated at 320 mg every 15 days.

The second case involves a 45-year-old female smoker with a five-year history of axillary Hurley II HS and a fifteen-year history of plaque and nail PS, BMI 36 kg/m2, with no other relevant comorbidities. Previous treatments for PS included topical steroids with vitamin D and methotrexate, alongside topical and oral antibiotics for HS. ADA was started in July 2022 at 80 mg biweekly. After one month of treatment, her PS worsened significantly (baseline PASI 4 increased to 6, BSA 5 to 6, DLQI 12 to 22, and NAPSI 20 to 46) and developed new palmo-plantar PS (PPGA 4). ADA was discontinued and replaced with secukinumab at 300 mg every 4 weeks until February 2024. Due to poor control of both HS (IHS4 8, NRS 8) and PS (PASI 5, BSA 5, DLQI 20, NAPSI 42, and PPGA 4), secukinumab was switched to off-label BKZ at 320 mg every 15 days.

Results:

In the first case, 3 months into BKZ follow-up, the patient reported fewer outbreaks and reduced suppuration (IHS4 6, DLQI 10, NRS 5), and almost complete clearance of inverse PS. This efficacy persisted through week 24, with no adverse events reported.

In the second case, 1 month after BKZ initiation, significant early improvement in all clinical scores was observed, which continued 2 months later for both HS (IHS4 0, NRS 4) and PS (PASI 10, BSA 5, DLQI 20; NAPSI 40; PPGA 4), with no adverse events.

Conclusion:

We report two cases of HS with paradoxical psoriatic reactions that showed rapid and significant improvement after ADA withdrawal and BKZ initiation, with no side effects reported.

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Abstract N°: 394

A Cross-Sectional Study on the Impact of Sleeping Habits on the Severity of Acne Vulgaris in a Tertiary Government Hospital

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Introduction & Objectives:

Acne Vulgaris, a chronic inflammatory skin disease of pilosebaceous units, is one of the most common dermatologic diagnoses encountered in the clinics, ranking as the second most common diagnosis at the Dermatology Out-Patient Department of a tertiary government hospital. Endogenous and exogenous factors including hormonal fluctuations, genetics, diet, tobacco use, stress and sleep deprivation have been linked to this disease. Sleep, one of the main regulators of the homeostasis of the body, is directly connected with well-being. The lack thereof and poor sleep quality have been associated with increased risk of physical and mental health problems including acne exacerbation through hormonal and immune-mediated mechanisms. Increased acne severity due to inadequate or poor sleep is common concern during consults in the clinic. However, very little research has been done on association between sleep quality and skin function. Reports addressing its influence on acne severity have been mainly anecdotal. This study aimed to determine the impact of sleeping habits on the acne severity of patients diagnosed with Acne Vulgaris in the out-patient department of a tertiary government hospital from December 2018 to June 2019.

Materials & Methods:

It is a cross-sectional study on the impact of sleeping habits on the acne severity of patients diagnosed with Acne Vulgaris in the out-patient department of a tertiary government hospital from December 2018 to June 2019. A minimum of 90 patients was required for this study. Total enumeration sampling scheme was utilized. Acne severity was evaluated using the Global Acne Severity Scale and sleeping habits including both sleep quality and quantity was measured using the Pittsburgh Sleep Quality Index (PSQI) questionnaire.

Results:

A total of 102 patients were recruited for the study wherein 12 of which were excluded and 90 were able to complete the PSQI questionnaire. The median acne severity using the GASS was 3. About one- third of the patients had moderate acne severity. Nearly half of the patients had severe to very severe acne vulgaris. Based from the PSQI, the median score of the study participants was 7 and ranges from 0 to 17. More than half of the participants (65.5%) were classified as poor sleepers. Among those with mild acne severity, three-fourths were classified as good sleepers. In contrast, among those with moderate to very severe acne severity, more than three-fourths were classified as having poor sleep quality. The result of the logistic regression showed significant association between acne severity and the sleeping habits in terms of PSQI Score ($p=0.000$), Total Sleep Duration ($p=0.027$), and Daytime Dysfunction Score ($p=0.018$) with PSQI as having the highest impact with the highest Walds statistic of 29.972.

Conclusion:

Acne vulgaris is linked to both endogenous and exogenous influences. Sleep deprivation, one of the consequences of urban life, is a good example of the combination of exogenous and endogenous factors that may contribute to acne. This study found that sleeping habits significantly impact the severity of acne vulgaris in

the Filipino population. A higher Pittsburgh Sleep Quality Index is more likely associated with higher acne vulgaris severity when compared to those with lower Pittsburgh Sleep Quality Index. This suggests the importance of evaluating patients with acne for conditions that affect sleep and that simple screening tools such as the PSQI may be useful for this task.

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Abstract N°: 406

Hidradenitis suppurativa with facial involvement: Epidemiological and clinical features in a case series.

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[1]Hospital Universitari Germans Trias i Pujol , Dermatology, Badalona, Spain

Introduction & Objectives:

Facial hidradenitis suppurativa (FHS) is considered an atypical variant of hidradenitis suppurativa (HS). Its diagnosis is based on the presence of painful nodules that may drain purulent material and resolve into rope-like scars or fistulae.

Objective: To define the epidemiological and clinical characteristics of patients with FHS.

Materials & Methods:

Retrospective case series of patients with FHS at Hospital Germans Trias i Pujol. A review of medical records and iconography of patients diagnosed with HS was performed. Patients who met the criteria proposed by *Poli et al.* for defining FHS were selected. Once identified, epidemiological data, clinical characteristics, treatments performed and clinical responses were collected.

Results:

A total of seven patients with FHS were obtained, with a predominance of males (5:2) and a mean age of symptom onset of 24 years (range 13-45). None of the patients shared clinical comorbidities, 43% (3/7) were smokers, only one had a family history of hidradenitis and 85% (6/7) were not obese. Only one patient had no HS in other locations and five had back involvement. Five patients had previously been diagnosed with acne of which four had undergone isotretinoin without response. Two had undergone surgery for a pilonidal cyst.

The presence of coalescing nodules with multiple drainage holes and depressed scars (circumferential or linear rope-like scars) were the most frequently encountered clinical features of HS-facial. All patients had received treatment with doxycycline and rifampicin (alone or in combination), with a favorable response in three of the seven patients. Four patients were candidates for biologic therapy with adalimumab or secukinumab. Of the patients on adalimumab, one patient was lost follow-up and one patient stopped on their own decision due to a complete response. Two patients received secukinumab, both of them with improvement.

Three patients were candidates for surgery in the facial area, two without recurrence in the treated areas and one is pending reevaluation.

Conclusion:

FHS presents distinct clinical and epidemiological features, including a male predominance and a significant absence of obesity when compared to patients with HS in typical locations. Lack of response to isotretinoin should prompt consideration of an FHS diagnosis, necessitating early intervention to prevent sequelae.

In our case series, the administration of secukinumab and adalimumab shows promising results for patients with FHS.

This series enables us to formulate hypotheses and advocate for its extension to a multicentre study, thereby facilitating an evaluation of the true prevalence of this condition, response rates to conventional treatments, as

well as surgical and biologic therapy efficacy.

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Abstract N°: 511

Insights into gut microbiome composition in hidradenitis suppurativa: a comprehensive examination of dietary habits and environmental influences

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory dermatological condition characterized by painful nodules, abscesses, and scarring, predominantly affecting apocrine gland-bearing regions. Despite its high prevalence and significant impact on the quality of life, the underlying pathophysiology of HS remains elusive. Recent investigations implicate cytokines, immune dysregulation, and environmental factors—such as obesity and dietary practices—in the development of HS. This study aims to explore the influence of dietary habits and environmental factors, including physical activity, on the gut microbiome of HS patients in comparison to healthy controls.

Materials & Methods:

A cohort of 80 individuals participated in this study, comprising of 40 diagnosed with HS and 40 healthy controls without dermatological disorders. Participants completed comprehensive questionnaires covering demographics, medical history, gastrointestinal symptoms, dietary patterns, and physical activity levels. HS patients also underwent quality of life assessments, and disease severity evaluations were conducted. Data were meticulously analyzed to identify correlations between dietary habits, environmental factors, and gut microbiome composition in HS patients relative to controls. DNA isolation and sequencing of microbiota was performed from fecal samples collected from each participants.

Results:

Preliminary findings highlight significant disparities in dietary choices and physical activity levels between HS patients and controls. Notably, HS patients exhibited heightened consumption of pro-inflammatory foods, such as those containing added sugars, compared to the control group. Furthermore, analysis of gut microbiome composition revealed distinct microbial profiles in HS patients, potentially associated with their dietary habits and disease severity.

Conclusion:

These initial observations suggest a plausible link between dietary practices, physical activity, and gut microbiome composition in HS patients. A deeper understanding of the impact of environmental factors on HS pathogenesis could pave the way for targeted interventions aimed at enhancing disease management and the overall quality of life. Further research is warranted to elucidate these intricate relationships.

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Abstract N°: 601

Patient-reported outcomes from the global, randomized, double-blind, placebo-controlled Phase 2 trial of the IL-17A- and IL-17F-inhibiting Nanobody sonelokimab in patients with moderate-to-severe hidradenitis suppurativa (HS): Week 24 results from the MIRA trial

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Introduction & Objectives: HS is a highly debilitating disease that has a profound physical and psychological burden for patients, impacting their quality of life (QoL) to a greater extent than most skin conditions. Patient-reported outcomes (PROs) are integral for the assessment of therapeutic interventions in HS and represent core outcome domains for trials, as recommended in the HiSTORIC initiative. Sonelokimab is a novel humanized Nanobody designed to inhibit IL-17A and IL-17F and penetrate difficult-to-reach sites of inflammation. In the MIRA trial, a significantly higher proportion of patients receiving sonelokimab achieved the primary endpoint of HS Clinical Response (HiSCR) 75 (120mg, 43.3%, $P<0.001$; 240mg, 34.8%, $P=0.007$; ITT-NRI) compared with placebo (14.7%) at Week (W) 12, with further improvements observed at W24. Analysis of a broad range of PROs at W12 showed significant improvements with sonelokimab compared with placebo in the Dermatology Life Quality Index (DLQI), HiSQoL (an HS-specific QoL score), skin pain, and HS symptom scores. Here, we present PROs at W24 from the MIRA trial.

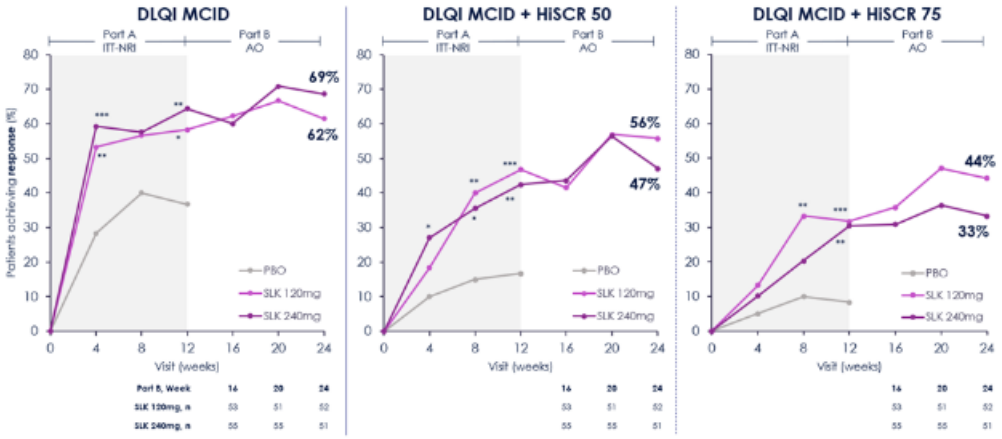
Materials & Methods: MIRA was a global, 24-week, randomized, double-blind, placebo-controlled Phase 2 trial in patients with moderate-to-severe HS (NCT05322473); the trial was placebo controlled until W12. W24 PROs (as observed; discontinuation rate <10%) included HiSQoL, Numerical Rating Scale 30 (NRS 30) response in Patient Global Assessment of skin pain (scored 0–10) in patients with a baseline score ≥3, minimal clinically important difference (MCID; ≥4-point reduction) in DLQI, and the Patient Global Impression of Severity (PGI-S) scale.

Results: 67 and 66 patients were randomized to receive sonelokimab 120mg and 240mg, respectively; 68 patients received placebo. PRO scores at baseline indicated a high burden of disease (mean DLQI: 12.0; 70.7% with skin pain NRS ≥3). At W24, more than 60% of patients receiving sonelokimab reported a clinically meaningful

improvement in DLQI (MCID: 120mg, 61.5%; 240mg, 68.6%), including ~50% of patients who achieved simultaneous DLQI MCID and clinical (HiSCR 50) responses (120mg, 55.8%; 240mg, 47.1%); the proportion of patients achieving simultaneous DLQI MCID and the higher clinical threshold of HiSCR 75 was also notable (**Figure 1**). Improvement in HiSQoL total score continued to W24 (mean change from baseline: sonelokimab 120mg, –11.4; 240mg, –10.4). Among the three HiSQoL subscales, scores were sustained or improved to W24 with sonelokimab, including the 'symptoms', 'activities–adaptation', and 'psychosocial' domains. For symptom scores at W24, 45.7% and 50.0% of patients achieved NRS 30, indicating skin pain response, in the sonelokimab 120mg and 240mg arms, respectively (**Figure 2**). The proportion of patients with PGI-S minimal or absent symptoms was 41.1% and 42.9% in the sonelokimab 120mg and sonelokimab 240mg arms, respectively.

Conclusion: Sonelokimab demonstrated early and sustained improvements in a broad set of PROs over 24 weeks in the MIRA trial, indicating that the observed high levels of clinical response translate to meaningful improvements for patients in pain and other symptoms to alleviate the overall QoL burden of HS. The ongoing VELA 1 and 2 Phase 3 trials will further examine PRO responses with sonelokimab 120mg in patients with moderate-to-severe HS.

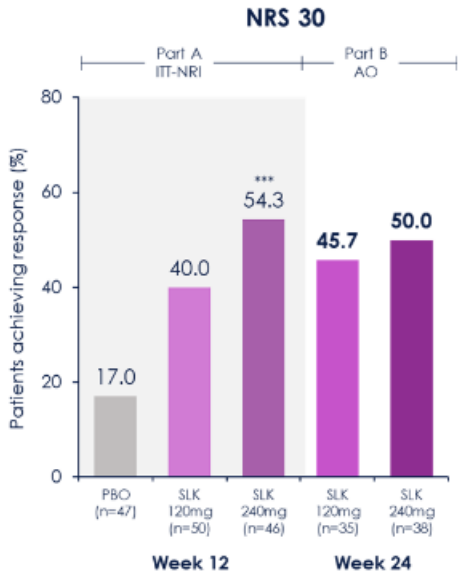
Figure 1. Patients achieving DLQI MCID and simultaneously achieving a composite of DLQI MCID and HiSCR 50 or 75



***Nominal *P*<0.001, **nominal *P*<0.01, *nominal *P*<0.05. Data for Week 14 to 24 are as observed. From Week 0 to 12, missing data are imputed by NRI as indicated by the grey box. HiSCR 50: Week 12: SLK 120mg, 65.7%; SLK 240mg, 53.0%; Week 24: SLK 120mg, 69.0%; SLK 240mg, 60.3%. HiSCR 75: Week 12: SLK 120mg, 43.4%; SLK 240mg, 34.8%; Week 24: SLK 120mg, 56.9%; SLK 240mg, 37.9% (Kimball A, *et al.* AAD, 2024). *P*-values are estimated from a Cochran–Mantel–Haenszel test stratified by Hurley Stage and prior biologic use.

AO, as observed; DLQI, Dermatology Life Quality Index; HiSCR, Hidradenitis Suppurativa Clinical Response; ITT, intention-to-treat; MCID, minimal clinically important difference; NRI, non-responder imputation; PBO, placebo; SLK, sonelokimab.

Figure 2. NRS 30 at Week 12 and Week 24



***Nominal *P*<0.001. Data for Week 24 are as observed. NRS 30 is defined as a ≥30% and a ≥1-point improvement from baseline in Patient Global Impression of Skin Pain NRS in patients with NRS ≥3 at baseline.

AO, as observed; ITT, intention-to-treat; NRI, non-responder imputation; NRS, Numerical Rating Scale; PBO, placebo; SLK, sonelokimab.

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Abstract N°: 602

Evidence of a role for IL-17F in the inflammatory mechanisms underlying hidradenitis suppurativa (HS), including in deep dermal tunnels

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Introduction & Objectives: HS is an inflammatory disease characterized by difficult-to-reach sites of inflammation deep in the dermis. Early initiation of HS involves follicle alterations that lead to painful nodules and abscesses. Follicle damage and aberrant overgrowth of keratinocytes driven by IL-17 signaling and other inflammatory processes can lead to the formation of neoepithelialized tunnels, causing significant pain and morbidity for patients. Sonelokimab is a novel humanized Nanobody designed to selectively inhibit IL-17A and IL-17F and target deep sites of inflammation. We sought to characterize in depth the pathophysiology of different HS lesions relative to perilesional skin, the role of IL-17F and IL-17A as key drivers of HS inflammation, and the potential of IL-17A and IL-17F inhibition with sonelokimab to modulate disease processes.

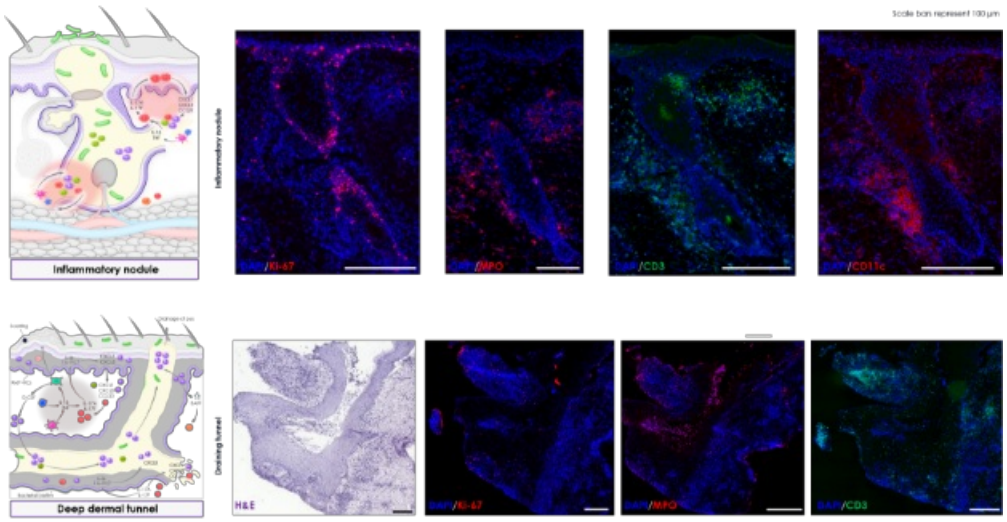
Materials & Methods: HS perilesional, nodule, and tunnel tissues from Hurley Stage II/III donors were characterized using H&E staining, immunofluorescence staining, and mRNA (RNA-seq, qRT-PCR) and protein (array, ELISA) analyses. To understand the impact of cytokine inhibition on tunnelassociated features: (1) normal human epidermal keratinocytes (NHEKs) were treated *in vitro* with IL-17A/A or IL-17F/F, alone or together with sonelokimab, secukinumab, or bimekizumab; (2) a 24-hr *ex vivo* HS perilesional/tunnel organ culture model was treated with sonelokimab, adalimumab, or bimekizumab.

Results: Immunofluorescence staining of CD3, CD11c, Ki-67, and MPO showed more pronounced keratinocyte proliferation and inflammatory infiltrate in nodules compared with perilesional skin. Draining tunnels were lined with proliferating keratinocytes and filled with MPO+ neutrophils (**Figure 1**). In comparison, non-draining tunnels were surrounded by CD3+ T cells but had limited neutrophil infiltration or keratinocyte proliferation. IL-17F and IL-17A mRNA and protein levels were upregulated in both nodule and tunnel tissue compared with perilesional tissue, with highest levels detected in tunnel tissue. Similarly, IL-17-associated chemokines CXCL8 (IL-8; a neutrophil chemoattractant) and CCL20 (a Th17 chemoattractant) were upregulated in HS lesions (both mRNA and protein), with highest levels observed in tunnel tissue. IL-17F stimulated *CXCL8* and *CCL20* mRNA expression in NHEKs independently of IL-17A. In both IL17stimulated NHEKs and an *ex vivo* HS tunnel model, sonelokimab demonstrated greater inhibition of *CXCL8* and *CCL20* mRNA expression compared with full-size monoclonal antibodies secukinumab and bimekizumab (NHEK assay), or adalimumab and bimekizumab (*ex vivo* model,

Figure 2).

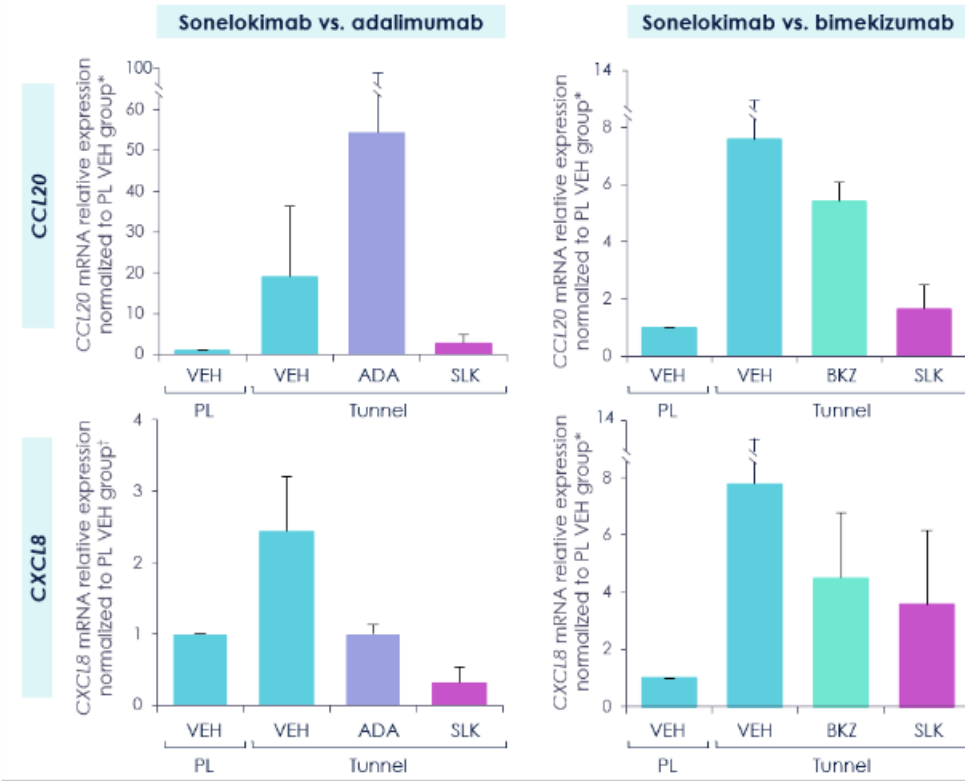
Conclusion: Nodules and tunnels exhibited greater pro-inflammatory chemokine and cytokine expression, immune cell infiltration, and keratinocyte proliferation compared with perilesional skin, with highest levels in tunnel tissue, indicating that tunnels represent the major source of inflammation in HS. IL-17F has a significant pro-inflammatory role, together with IL-17A, in the HS disease cascade. Sonelokimab demonstrated greater inhibition of *CCL20* and *CXCL8* expression compared with secukinumab or bimekizumab in IL-17-stimulated NHEKs and compared with adalimumab or bimekizumab in an *ex vivo* HS tunnel model. Thus, inhibition of both IL-17A and IL-17F with tissuepenetrating therapies may contribute to more profound disease control, consistent with clinical data from the Phase 2 MIRA trial of sonelokimab in HS.

Figure 1. Inflammatory nodule and draining tunnel biopsy characterization



CD3, cluster of differentiation 3; CD11c, integrin αX; DAPI, 4′,6-diamidino-2-phenylindole; H&E, hematoxylin and eosin; Ki-67, marker of proliferation Kiel 67; MPO, myeloperoxidase.

Figure 2. Inhibition of Th17 chemoattractant *CCL20* and neutrophil chemoattractant *CXCL8* (*IL-8*) in *ex vivo* tissue with sonelokimab and bimekizumab or adalimumab



*n=4. †n=3. Data are descriptive and represent mean ± standard error of the mean.

ADA, adalimumab; BKZ, bimekizumab; CCL, C-C chemokine ligand; CXCL, C-X-C motif chemokine ligand; mRNA, messenger ribonucleic acid; PL, perilesional; SLK, sonelokimab; VEH, vehicle.

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Abstract N°: 622

Efficacy and tolerability of a fixed-dose benzoyl peroxide 5% and clindamycin 1 % gel alone or in combination with oral vitamin A 50.000 IU in the treatment of mild-to-moderate acne: A prospective, randomized, assessor blinded trial.

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Introduction & Objectives:

Benzoyl peroxide (BPO) is commonly used alone or in combination with retinoids or antibiotics as first line treatment in acne vulgaris (AV). BPO-based topical anti-AV products are effective however, often, the skin tolerability profile is not optimal due to skin irritation and skin dryness commonly observed during treatment. It is frequently needed to combine an appropriate dermocosmetic approach to restore the function of the skin barrier. The fixed-dose combination of BPO with clindamycin (BPO-Cli) has demonstrated to be very effective and well tolerated in the treatment of AV. Oral vitamin A (retinol) has shown to improve AV lesions mainly in non-controlled observational studies with a good skin tolerability. So far, no controlled data regarding an "In&Out" strategy using BPO-Cli topical product and oral Vitamin A have been conducted in AV treatment. We evaluated and compared the efficacy and tolerability of BPO-Cli gel alone or in combination with oral Vitamin A in subjects with mild-to-moderate AV.

Materials & Methods:

In a randomised, prospective, assessor-blinded trial a total of sixty subjects (10 men and 50 women, mean age: 24 years) with AV were enrolled in an 8-week trial, after their informed written consent. Thirty subjects were allocated to BPO-Cli gel treatment (one application per day in the morning) (Group A) and thirty subjects were allocated to BPO-Cli gel and Vitamin A oral supplementation (50.000 IU) once daily (Group B). The primary endpoint was the evolution of Global Acne Grading System (GAGS) assessing AV lesions number and type (with a score of 0 representing no lesions, 1-18 mild, 19-30 moderate and >31 severe and very severe acne). GAGS score was evaluated at baseline and after 8 weeks by an investigator unaware of treatment allocation.

Results:

All subjects concluded the 8-week treatment period. No severe adverse events were registered in both groups. At baseline the GAGS score was 26.2±3.0 in Group A and 25.9±2.6 in Group B. After 8-week of treatment Group A shown a percentage reduction of GAGS in comparison with baseline values of -40%. In the Group B the percentage reduction was -56%. At week 8, the GAGS values were significantly lower (p=0.0001) in Group B (11.4±2.8) in comparison with Group A (15.8±3.0) with an absolute difference of -4.37 points (95% CI: -5.9 to -2.8). At week 8, the percentage of subjects with a GAGS score <18 was 66.7% (20 out 30) in Group A and 96.7% in Group B (29 out of 30) (P=0.0056; Fisher exact test).

Conclusion:

The combination of BPO-Cli with oral Vitamin A has shown to be more effective in comparison with the topical treatment alone in the treatment of mild-moderate AV. The combination was also very well tolerated.

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Abstract N°: 623

Impact of hidradenitis suppurativa on mental health: Results from the HS Uncovered patient survey from the United Kingdom

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[1]Bristol Royal Infirmary, Bristol, UK, [2]University of Bristol, Bristol, UK, [3]Barts Health NHS Trust & Queen Mary University, London, UK, [4]Leeds Centre for Dermatology and Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, Leeds, UK, [5]University Hospital Birmingham, Birmingham, UK, [6]Novartis Pharmaceuticals UK Ltd, London, UK, [7]Novartis Pharma AG, Basel, Switzerland, [8]IQVIA, Integrated Research, EMEA, [9]British Skin Foundation, London, UK, [10]Pain UK, West Sussex, UK, [11]Waldron Health Centre, Amersham Vale, London, UK

Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, painful, inflammatory disease associated with a high disease burden and multiple comorbidities.1 HS also has a significant psychosocial impact, with patients with HS experiencing social stigma, isolation, anxiety and depression. There is an association between HS and suicidal intent.2 A recent study reported that 24.1% of patients with HS had ≥1 psychiatric comorbidity compared with 19.1% of patients with psoriasis.3 HS Uncovered was a cross-sectional, real-world survey evaluating patients' perspectives on various aspects of HS. The survey was conducted between December 2022 and March 2023 in 6 countries (France, Germany, Italy, Spain, UK and US). Herein, we report the impact of HS on patients' mental health, focusing on findings from the UK.

Materials & Methods:

HS Uncovered was a patient-reported, 35-minute online survey. Adults who self-reported a diagnosis or had a suspected diagnosis of HS at the time of data collection and who were not participating in any other HS surveys in the prior 4 weeks were included. Hospital Anxiety and Depression Scale (HADS) was used to assess anxiety and depression, where the scores are categorised as follows: 0-7 (normal), 8-10 (borderline abnormal) and 11-21 (abnormal). The data of patients with a HS diagnosis are reported here.

Results:

The survey included 100 patients from the UK, of these, 80 had diagnosed HS. Mean patient age was 42 years; 69% were female, and 80% were White. Overall (N=100), 37%, 51% and 10% of patients described the current severity of HS or HS-related symptoms as mild, moderate and severe, respectively. Mean HADS-Anxiety (HADS-A) score was 11, and 56% of patients had an abnormal HADS-A score, whereas 18% had a borderline HADS-A score (**Figure 1**). Mean HADS-Depression (HADS-D) score was 9; 35% and 31% of patients recorded abnormal and borderline HADS-D scores, respectively (**Figure 1**). Patients living with HS reported having worrying thoughts (69%), feeling tense or wound up (56%), having a frightened feeling as if something awful is about to happen (56%), feeling as if slowed down (55%), having lost interest in their appearance (53%), feeling restless (44%), having sudden feelings of panic (55%) and feeling butterflies in the stomach (30%). Only 33% of patients reported that they 'can laugh and see the funny side of things', while 41% reported that they still enjoy the things they used to enjoy.

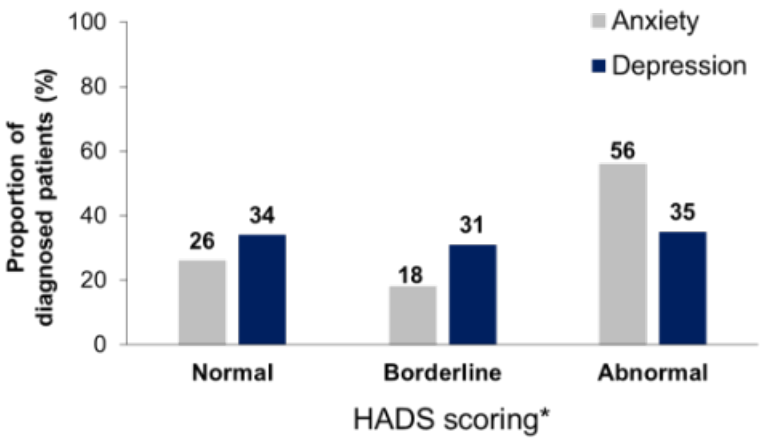
Conclusion:

The results of this survey indicate that a substantial proportion of patients with HS experience anxiety and depression. Furthermore, patients experience negative thoughts and feelings. Given the association between HS and psychological comorbidities, a holistic approach is needed to ensure optimal management of patients with HS.

References

1. Garg A, et al. *Am J Clin Dermatol.* 2023;136:42–53.
2. Phan K, et al. *Ann Transl Med.* 2020;8:821.
3. Huilaja L, et al. *J Invest Dermatol.* 2018:138:46–51.

Figure 1: Impact of HS on mental health



HADS, Hospital Anxiety and Depression Scale; HS, hidradenitis suppurativa.

*HADS scoring: 0-7 (normal), 8-10 (borderline abnormal), 11-21 (abnormal)

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Abstract N°: 683

Multi-omics and integrative approach to understand the comedone ecosystem and evaluate the overall efficacy of an acne prone skin product containing Silybum Marianum Fruit Extract

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Introduction & Objectives: Acne is a common inflammatory skin disease which affects the pilosebaceous units. During acne development, four main pillars are impacted in the follicle and can conduct to the formation of the primary acne rententional lesion, the comedone: dysbiosis, hyperseborrhea, hyperkeratosis, and local immuno-inflammation. Under pro-inflammatory circumstances, comedones can progress to highly inflamed lesions, i.e. papules and pustules. In this study, clinical evaluations of patients treated with an acne-prone skin product were combined with a multi-omics approach and imaging to analyze the comedone ecosystem.

Materials & Methods: Forty subjects with mild-to moderate acne were randomly assigned in two comparative parallel groups: one receiving the tested product containing Silybum Marianum Fruit Extract (SMFE) twice a day for 56 days, the other consisting in an acne control group. Clinical, pharmacological, and ultrastructural imaging analysis were performed at day 0, 28 and 56. Comedone ecosystem, more particularly the acne pillars, was studied on microcomedones isolated by pressure on the skin surface.

Results: After two months of product use, retentional acne lesions were significantly decreased and GEA score was improved (-69,2% of moderate acne and +128,6% of mild acne). This clinical benefit was correlated to changes in comedone ecosystem. Indeed, while the ultrastructure of comedones did not change between time points in the control condition, a significant alteration of the structural integrity of the comedones was observed from one month of product application. Comedones were characterized by a significant loss of corneocyte cohesion, swelling of the corneocyte membranes and numerous areas of follicular rupture, indicative of comedolysis. This ultrastructural impact was associated with modification of some metabolic pathways involved in the dysregulation of keratinocyte differentiation and inflammation. Interestingly, while no changes in the bacterial and fungal alpha diversity were significantly observed in the test group, at species level, significantly lower levels of *Malassezia globosa* were found* in comedones of test subjects at T56* compared to control subjects. Finally, lipid analysis revealed a significant decrease in the levels of cholesterol, squalene, and several fatty acids, in particular unsaturated fatty acids such as the arachidonic acid, in comedones after two months of product use. In addition, the fatty acid/glycerophospholipid ratio significantly decreased on T28 vs T0. All these data showed the product efficacy on all acne pillars within the comedone and highlighted a new central microorganism candidate in the acne ecosystem disruption.

Conclusion: This global approach demonstrates, for the first time, the clinical efficacy of the dermocosmetic SMFE product by targeting the all the pilosebaceous follicle ecosystem and preventing the comedone switch to block the entry of normal pilosebaceous units into the acne cycle.

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Abstract N°: 692

A multicenter evaluation of a ceramide-containing hydrating cream-to-foam cleanser and facial moisturizing lotion for improving topical treatment tolerability and adherence in facial acne

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Introduction & Objectives:

Acne vulgaris (acne) is the most common inflammatory skin disorder in the United States, affecting up to 20% of the Canadian population. While topical retinoids are the mainstay of acne treatment, they are associated with local adverse events such as skin irritation. These adverse events have been associated with poor tolerability and poor treatment adherence. Efforts to improve topical retinoid tolerability and adherence may include utilizing adjunctive skincare, such as appropriate cleansers and moisturizers. As ceramides are key physiologic lipids required for the construction and maintenance of the epidermal barrier and restoring the skin's natural protective barrier, the use of skin care products containing ceramides may be particularly beneficial for acne sufferers. The objective of this study was to evaluate the impact of a ceramide-containing hydrating cream-to-foam cleanser and PM facial moisturizing lotion on acne treatment tolerability and adherence.

Materials & Methods:

Seven Canadian sites participated in this multicenter, open-label, cohort study designed to clinically evaluate a combination treatment, which included a topical retinoid, twice-daily use of an adjunct cleanser, and once-daily use of a PM moisturizer*. Subjects completed a total of four study visits, over a duration of 12 weeks. Visits occurred at screening/baseline, and weeks 4, 8, and 12. Throughout the study, subjects self-reported adverse events such as itchiness, soreness/pain, and stinging. At each visit, investigators completed i) the Dry and Irritated Skin Scale (DISS), which graded the presence of skin roughness, flakes/scales, erythema, dehydration, and inflammation, with higher total scores corresponding to a worse condition; and ii) the Investigator Global Assessment (IGA) of acne, which rates acne severity on a 5-point scale ("clear", "almost clear", "mild", "moderate", "severe"). In addition, Investigators completed the Global Aesthetic Improvement Scale (GAIS) at each follow-up visit, which rated the subject's response to treatment as "very much improved", "much improved", "improved", "no change", or "worse".

Results:

A total of 125 subjects (110 females, 29 males) were included in the analyses. The average age of the sample was 23.79 (SD: 7.48), including 20 pediatric subjects (ages 12-17). Most subjects (N = 99; 72.8%) were treatment naïve prior to enrolling in the trial. Fifty-seven (41.6%) of these subjects were not prescribed a concomitant medication for acne throughout the trial and instead used only the investigational products as a treatment strategy. The remaining subjects (N = 38; 27.7%) had a recent (i.e., within 2 weeks of enrollment) to their acne medications (e.g., increased dose). The sample consisted of subjects presenting mild and moderate acne at baseline. After 12 weeks of treatment, 93.6% (n = 117) of subjects achieved "improved" or better based on the GAIS. The average DISS score significantly improved by 62.77% from baseline (M = 6.58) to week 12 (M = 2.45; $p<0.05$). Rates of subject-reported itchiness, soreness/pain, and stinging remained stable throughout the 12-week study period.

Conclusion:

Daily use of a ceramide-based skincare regimen was associated with the prevention of retinoid-induced adverse events such as skin itchiness, soreness/pain, and stinging, and improved compliance with prescription acne treatments.

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Abstract N°: 738

Addition of Antihistamines to Therapy with Isotretinoin for Moderate to Severe Acne: A Friendly Summary of the Body of Evidence (FRISBEE)

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Introduction & Objectives:

Acne represents the most common skin disease, affecting up to 85% of adolescents [1,2].

In cases of moderate to severe acne, isotretinoin, a derivative of Vitamin A, represents the therapy of choice, due to its ability to act on the 4 main pathophysiological factors of acne: follicular hyperkeratinization, sebum hypersecretion, presence of *Cutibacterium acnes*, and inflammation [1].

Nonetheless, its use must be monitored, due to its potential adverse effects, which include xerosis, cheilitis, headache, myalgia, hepatotoxicity, hypertriglyceridemia, and teratogenicity, among others [2, 3].

In 2008, *Pelle et al.* performed an *in vitro* study, in which they evidenced the presence of histaminergic receptors in sebocytes, as well as a decrease in squalene levels with the use of antihistamines [4].

Since then, a potential role for antihistamines in the treatment of acne has been hypothesized, due to their anti-inflammatory and antipruritic action, and their ability to reduce lipogenesis in sebocytes [1].

Likewise, it has been proposed that the addition of antihistamines to isotretinoin therapy may have a synergistic therapeutic role, as well as attenuate its adverse effect profile [1-3,5,6].

Thus, the objective of this study is to assess the efficacy and safety of combined treatment with antihistamines and isotretinoin, compared to the use of isotretinoin as monotherapy, for moderate to severe acne.

Materials & Methods:

An electronic search in Epistemonikos, the largest database of systematic reviews in health, which is maintained by screening multiple information sources, including MEDLINE, EMBASE, Cochrane, among others, was performed. Data from the primary studies were extracted from the systematic reviews and reanalyzed. Subsequently, a meta-analysis and a Summary of Findings (SoF) table using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach were performed.

Results:

We identified 3 systematic reviews [7-9] that together included 5 primary studies [1-3,5,6], of which 4 were randomized trials (262 patients) [1-3, 6]. The analysis of the present work was based on the 4 randomized trials (Table 1).

Conclusion:

The addition of antihistamines to isotretinoin therapy, compared with the use of isotretinoin as monotherapy, likely decreases the counts of non-inflammatory lesions, inflammatory lesions and total lesions at week 12 (moderate certainty of the evidence). On the other hand, combination therapy likely decreases the *Global Acne*

Grading System score at week 12; probably decreases the risk of presenting paradoxical exacerbations; and likely increases patient satisfaction, compared to monotherapy with isotretinoin (moderate certainty of the evidence). Finally, combined treatment may reduce the adverse effects derived from isotretinoin therapy, in particular cheilitis and pruritus (low certainty of evidence).

Table 1. *Summary of Findings* (SoF) table

Antihistamines + isotretinoin compared with isotretinoin monotherapy for moderate to severe acne

Patients	Adolescents and adults with moderate to severe acne
Intervention	Antihistamines* + Isotretinoin**
Comparison	Monotherapy with Isotretinoin**

Outcome	Absolute effects		Relative risk (IC 95%)	Certainty of the evidence (GRADE)
	Isotretinoin	Antihistamines + Isotretinoin		
	Difference: patients per 1000			
Decrease in lesion count at week 12	Combination therapy, compared to isotretinoin monotherapy, resulted in a greater decrease in non-inflammatory lesion count, compared to baseline (44.8% vs. 17.8% in one study [1]; 63.2 vs. 44.5% in another trial [3]), with statistical significance. Another study [6] reported the outcome as the difference in count between both groups, also being favorable for combined therapy (-1.48 lesions; 95% CI -3.9 to 0.94, p<0.01). Regarding inflammatory lesion count, the combined therapy resulted in a greater decrease compared to baseline (55.8% vs. 22.9% in one study [1]; 75.9. vs. 62.7% in another trial [3]), with statistical significance. Another study [6] reported the outcome as the difference in count between both groups, also being favorable for the combined therapy (-3.05 lesions; 95% CI -5.64 to -0.45, p<0.01). This relationship was maintained in the total lesion count, with a greater decrease compared to baseline in favor of the combined therapy group (45.6% vs. 18.7% in one study [1]; 66.07% vs. 48.7% in another trial [3] ; both with p < 0.05).		-	⊕⊕⊕◯[1] Moderate
Decrease in the *Global Acne Grading System* (GAGS) score at week 12†	Combination therapy showed a greater decrease in the *GAGS* score with respect to baseline, compared with monotherapy (63.1% vs. 17.2% in one study [2]; 51.0 vs. 38.5% in another trial [3]), in a statistically significant manner.		-	⊕⊕⊕◯[1] Moderate
Patient satisfaction ††	A study [1] showed that the average patient satisfaction score was 3.4 (SD 0.15) in the intervention group, and 2.75 (SD 0.18) in the control group (statistically significant difference, P = 0.008). Likewise, another trial [3] found that in the intervention group, 42.1% of patients were "very satisfied," compared to 22.8% in the control group.		-	⊕⊕⊕◯[1] Moderate
Paradoxical exacerbation	298 per 1000	104 per 1000	RR 0,35 (0,16 to 0,75)	⊕⊕⊕◯[1] Moderate
	Difference: 194 less (Margin of error: from 250 less to 74 less)			
Adverse effects	All studies reported the presence of adverse effects. One study [1] found a lower rate of cheilitis (75 vs 90%) and pruritus (15 vs 45%) in the intervention group, compared to the control. A lower rate of pruritus was also described by 2 other studies, favorable to the intervention group (12.9 vs 71% in one trial [2]; and 18 vs 50% in the other [3]). No severe adverse events were reported.		-	⊕⊕◯◯[2] Low

* 2 studies used Desloratadine at a dose of 5 mg/d, while another 2 studies used Levocetirizine in doses of 5 mg/d.
** Isotreninoin doses were 20 mg/d (approximately 0.2-0.4 mg/kg/d)
† The *GAGS* divides the face, chest and back into 6 areas (forehead, each cheek, nose, chin and chest/back), and assigns a factor to each area based on the surface area and distribution/density of the pilosebaceous units. Each type of lesion is assigned a value depending on its severity (no lesions = 0, comedones = 1, papules = 2, pustules = 3 and nodules = 4), and the score for each area (local score) is calculated by the formula: Local Score = Factor x Rating (0– 4). The global score is the sum of the local scores. A score of 1 to 18 is considered mild acne; 19-30, moderate; 31–38, severe;and >39, very severe.
†† The *4 point scale* was used, in which patients classify their degree of satisfaction as: 4, very satisfied; 3, satisfied; 2, slightly satisfied; 1, unsatisfied.
[1] One level of evidence was downgraded due to risk of bias.
[2] Two levels of evidence were downgraded due to risk of bias and imprecision.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
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Abstract N°: 784

The impact of secukinumab on cardiovascular risk factors in patients with moderate to severe hidradenitis suppurativa: A post hoc analysis of pooled data from the SUNSHINE and SUNRISE phase 3 trials

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin disease associated with an unmet clinical need and a high disease burden.1–4 Patients with HS are independently at risk of cardiovascular (CV) events5-7 and are at an increased risk of all-cause and CV-related mortality.8 In the SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) phase 3 trials in patients with moderate to severe HS, secukinumab was reported to have sustained efficacy and a favourable safety profile.9 A post hoc analysis of pooled data from these phase 3 trials was performed to evaluate the effect of secukinumab on CV risk parameters up to week 52.

Materials & Methods: In both trials, patients with moderate to severe HS were randomised to receive subcutaneous secukinumab 300 mg every 2 (SECQ2W) or 4 weeks (SECQ4W), or placebo (PBO) in a 1:1:1 ratio between weeks 0 and 16. Patients receiving PBO were switched to SECQ2W or SECQ4W while patients receiving SECQ2W or SECQ4W remained on the same treatment from weeks 16 to 52.9 Traditional CV risk factors such as body mass index (BMI), total cholesterol, low-density lipoprotein cholesterol (LDL-C), triglycerides, glycated haemoglobin (HbA1c), inflammatory CV risk parameters, such as C-reactive protein (CRP) and neutrophil-lymphocyte ratio (NLR), were assessed through week 52. All endpoints were reported as pooled data from SUNSHINE and SUNRISE and data are presented as observed. No statistical testing was applied as analyses were exploratory.

Results: Overall, 1084 patients were enrolled in SUNSHINE and SUNRISE (SECQ2W [N=361]; SECQ4W [N=360]; PBO [N=363]) with an overall mean (standard deviation) age of 36.2 (11.5) years with 56.3% (610/1084) of patients being female. Overall, the most common CV comorbidity reported at baseline was hypertension (15.8% [171/1084]). In both SECQ2W and SECQ4W groups, no notable increases in total cholesterol, LDL-C, and triglycerides versus placebo were observed at week 16, with a similar trend observed through week 52 in both dose groups (**Figure 1A–C**). Mean NLR values decreased slightly from baseline to week 16 in both secukinumab groups; the values remained stable through week 52 in the SECQ2W group and returned to baseline in the SECQ4W group (**Figure 1D**). No noticeable changes in BMI, blood pressure and HbA1C were observed for the SECQ2W and SECQ4W group from baseline through week 52 (**Figure 2A and 2B**). Additionally, CRP levels were improved in both secukinumab groups from baseline through week 52 (**Figure 2C**).

Conclusion: Treatment with secukinumab in patients with HS was associated with a reduction in systemic inflammation, as measured by CRP. Moreover, treatment with secukinumab had no negative impact on traditional CV risk factors, confirming its favourable safety profile in patients with HS.

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Figure 1: The impact of secukinumab lipid parameters from baseline through week 52. Bar graphs detailing values of (A) total cholesterol; (B) LDL-C; (C) triglycerides; and (D) NLR by treatment group through week 52. LDL-C, low-density lipoprotein cholesterol; NLR, neutrophil–lymphocyte ratio; PBO, placebo; Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab 300 mg.

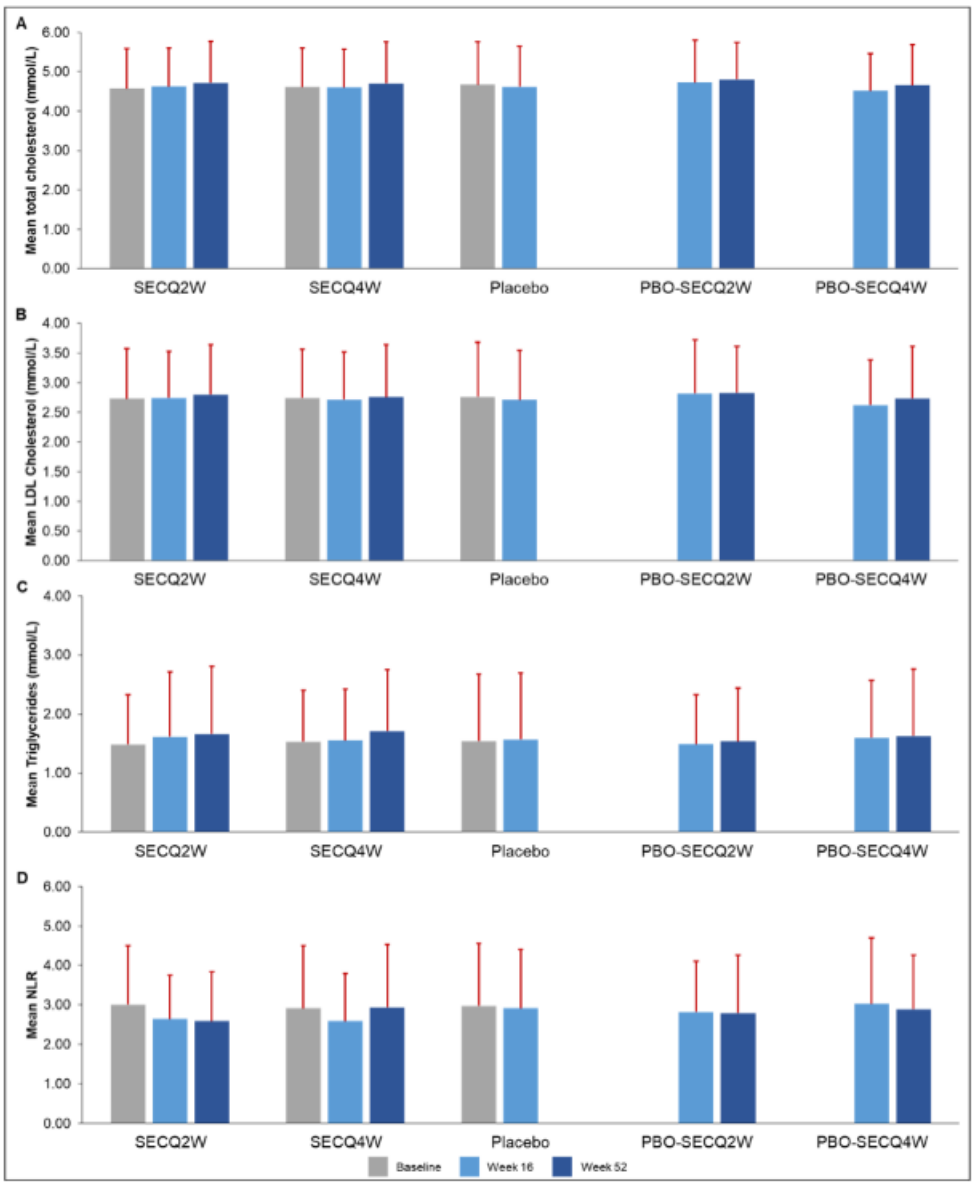
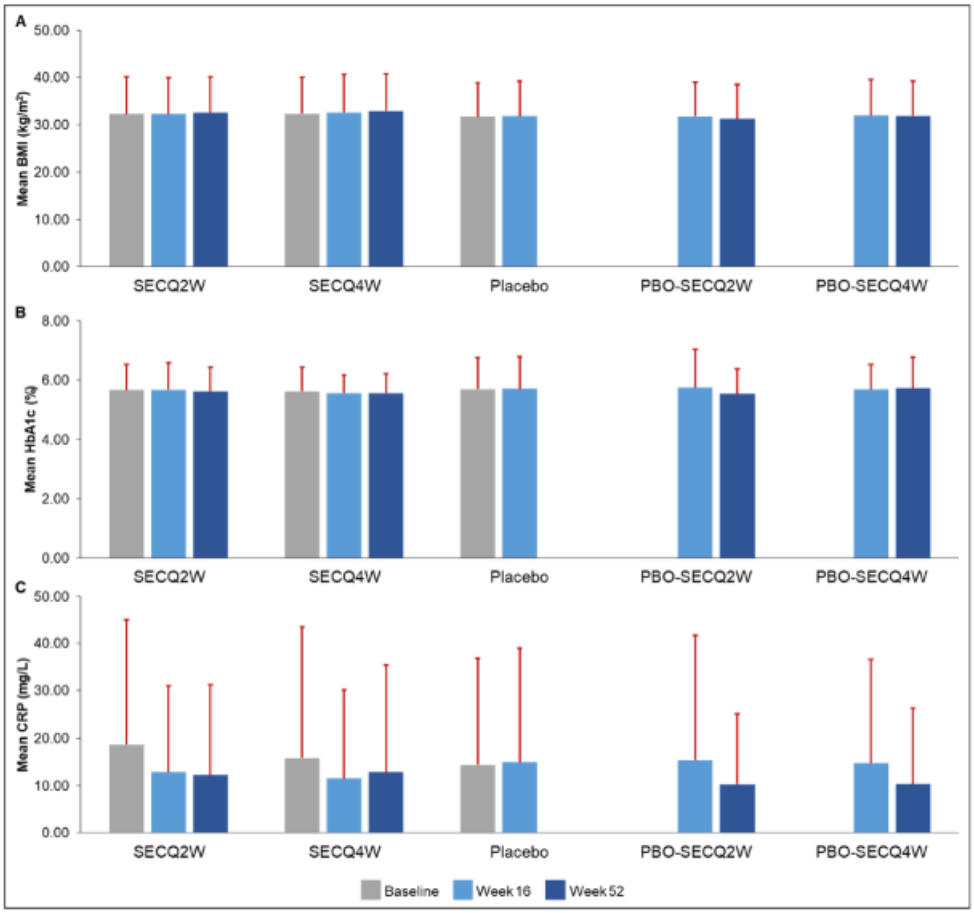


Figure 2: **The impact of secukinumab on BMI, HbA1c and CRP levels from baseline through week 52.** Bar graphs detailing absolute change from baseline values of (A) BMI; (B) HbA1c; (C) CRP; and by treatment group through week 52. BMI, body mass index; CFB, change from baseline; CRP, C-reactive protein; HbA1c, glycated haemoglobin; Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab 300 mg.



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Abstract N°: 866

Hidradenitis Suppurativa: Current Trends of Treatment In A Country With Limited Healthcare Facilities.

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Hidradenitis Suppurativa: Current Trends of Treatment In A Country With Limited Healthcare Facilities.

Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, recurrent, debilitating dermatosis. Management of HS remains a challenge owing to a combination of multiple treatment options, lack of a curative medical treatment, potential resistance of recommended antibiotics and higher cost of biologics. The study aimed to assess the current trends in treatment patterns of hidradenitis suppurativa in a country with limited healthcare facilities.

Materials & Methods:

The cross-sectional study was conducted between January 2023 and March 2023 among 76 dermatologists from all over the country. A pretested, semi-structured questionnaire containing 13 questions targeted mainly prescribing patterns based on their regular clinical practices. The data has been collected through both online and in-person interviews.

Results:

The study found that topical+systemic antibiotics were the most frequently used treatment modality for hidradenitis suppurativa in all severity groups. Doxycycline was the most preferred systemic antibiotic, followed by Clindamycin. Most of the dermatologists (79%) did not prescribe the combination therapy of clindamycin + rifampicin as a reason for drug resistance (51.7%), as it is a tuberculosis endemic country and unavailability (46.6%) of rifampicin in the drugstores. However,46% prioritized isotretinoin as non-antibiotic treatment and 78% have never given biologics for HS treatment. Biologics are not easily available & affordable in this country. When it comes to surgical intervention, almost half (43.4%) of the dermatologists never performed any surgical procedure in clinical practices and they referred the patients to a plastic surgeon (30.2%). The study explored the challenges of hidradenits suppurativa treatment in this particular country, including the chronic nature of the disease (76.3%) and patients not compliant with prescribed treatment (52.6%). Lack of experts and clinical trials in this field, lack of health insurance coverage are also identified as challenges in treating hidradenitis suppurativa.

Conclusion:

Identifying and addressing barriers to achieving expertise in the treatment of HS can help provide access to high-quality care for patients with hidradenitis suppurativa. Future changes to health care in this country will undoubtedly result from the provision of health insurance, the training of dermatologists to become clinical and surgical experts in this area, and the assurance of the accessibility and affordability of newer treatment modalities.

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Abstract N°: 873

Oral isotretinoin induced creatine phosphokinase elevations: clinical significance and comorbidities

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Introduction & Objectives: Isotretinoin is a valuable oral therapy for moderate to severe or recalcitrant acne. Nearly 44% of patients on isotretinoin have one elevated creatine kinase (CK) value during the treatment.1 Elevated CK is considered supra-normal in darker skin types, male sex, or regular athletic activity.2 Beyond the CK values of 1,000 IU/L, there is concern for rhabdomyolysis.1

The latest acne treatment guideline recommends only the monitorization of liver functions, β-hcg, and lipid profile values during oral isotretinoin treatment.3 Our study aimed to examine the frequency and severity of hyperCKemia in patients receiving oral isotretinoin.

Patients & Methods:

All patients who were prescribed oral isotretinoin for acne in the outpatient clinic between 2021-2023 were included. In our practice, we monitored hemogram, liver functions, CK, β-hcg, and lipids at baseline and monthly. Adequate oral hydration and reduction of physical activity were recommended. During follow-up, patients with elevated CK values were identified. Permission was received from the Provincial Health Directorate.

Results:

A total of 165 patients, 125 women and 40 men, were included. Ten of these patients were found to have CK outside the normal range during their follow-up (Table 1). Four of them (0.03%) were females and 6 of them (0.15%) were males. Myalgia was not present in any patient. There was no history of intramuscular injection or medication. In 4 of the male patients, CK values were 1000 IU/L and above. Three of them were engaged in moderate school sports activity. Hospitalization and intravenous (IV) fluid electrolyte support were required in 3 patients (50%). With IV hydration and rest, CK values returned to normal within 7-14 days. They were later discharged in good health.

Table 1: Patients with creatine phosphokinase (CK) elevations

Patient #	Gender	Age	Dosage (mg/day)	End of the # month	AST, ALT*	Exercise	Symptom**	Interna
1	M	17	20	1	x5, x2,5	+, moderate	-	+
2	F	24	10	1	-	-	-	-
3	M	20	40	2	x5, x3	+, moderate	-	+
4	F	18	40	3	-	-	-	-
5	F	36	40	2	-	+, moderate	-	-
6	M	16	40	2	-	-	-	-
7	F	21	40	1	-	-	-	-
8	M	16	40	3	-	-	-	-
9	M	22	10	1	-	-	-	-
10	M	20	40	3	x8, x3	+, moderate	-	+
**Aspartate aminotranferase, Alanine aminotransferase, (x fold increase), **Myalgia or other, ***Maximum CK values (IU/L)*								

Conclusion:

The significance of these abnormalities in CK by isotretinoin is uncertain. CK elevations greater than five times normal accompanied by muscle pain, fatigue, and weakness can be a sign of rhabdomyolysis.4 CK monitoring is not routinely recommended unless there are symptoms.5 However, rhabdomyolysis may be underrecognised.1 When CK elevation is detected, it is necessary to take a break from the medication and follow up with hydration to avoid rhabdomyolysis. In our patients, myalgia was not an indicator, but they had marked CK elevations and liver function test abnormalities.

Currently, exercise is not a contraindication to isotretinoin therapy. In a predisposed individual, there may be a possible synergy between exercise and isotretinoin on CK elevations.1 That is, some patients may benefit from baseline and intermittent CK evaluation. In our study, all three of the patients with marked elevation were males. Being a young active man can be an indication for CK monitoring, and recommending exercise restriction.

Further research is needed to determine the population that would benefit from regular CK evaluations at baseline and monthly during the treatment.

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Abstract N°: 920

Perioral Dermatitis-local treatment challenges

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Introduction & Objectives:

Perioral dermatitis (POD) is a chronic inflammatory skin disease. It is more common in lighter-skinned females and is characterized by erythema with micro vesicles, papules and pustules. Infective organisms such as *Demodex spp Candida albicans*, and fusiform bacteria have been cultured from lesions, however, their significance remains unclear. Whereas various pharmaceuticals are used as therapeutic approaches, there exist no gold standard and approved therapy for POD. The aim of the work: To use an effective local therapy for POD with intolerability to local therapy

Materials & Methods:

We describe 5 female patients, mean age 35 years old with erythematous plaques on perioral skin with grouped papulovesicles and scaly follicular papules. They were diagnosed with POD; they have no systemic diseases. Skin scraping shows high density of Demodex mites under microscopy. Bacterial and fungal cultures from facial skin were negative.

Patients were treated with topical 0.03% tacrolimus ointment and 1 % metronidazole cream once per day each of them. The adverse events such as burning sensations and stinging occurred and no significant improvement of their POD was achieved in 4 weeks So, we prescribed local 1% ivermectin cream once daily for 8 weeks. Without any systemic medications.

Results:

All 5 patients responded to the treatment with topical 1% ivermectin cream very well with a gradual reduction in inflammatory skin lesions. After 4 weeks there was significant improvement without any skin irritation. After 5 weeks of treatment Complete clearance (IGA score 0) was achieved in all cases. Skin scraping samples show negative results for Demodex mite. The adverse effects such as: stinging, burning and desquamation did not exist.

Conclusion:

Topical ivermectin was well tolerated and effective for local treatment. It will be a good option for management of challenging Perioral dermatitis.

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Abstract N°: 923

The effect of milk consumption on acne: a meta-analysis of observational studies

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Introduction & Objectives:

Acne is a common skin condition in developed countries with western diets. The effect of milk on acne has been highly controversial. In order to examine the association between milk consumption and acne risk, we conducted a meta-analysis of available data.

Materials & Methods:

We carried out comprehensive databases search of Pubmed, Embase, Medline and Cochrane Library and identified 4 cohort studies and 9 case-control or cross-sectional studies, including a total of 71819 participants. We evaluated the pooled odds ratio (OR) with its 95% confidence interval (CI) using a random-effects model. Subgroup analyses on acne severity, milk forms and milk intake levels were performed.

Results:

Compared with nonconsumers, the pooled OR was 1.16 (95% CI 1.09-1.24) for overall milk consumers in all included studies, and 1.17 (95% CI 1.10-1.24) in cohort studies, and 1.16 (95% CI 1.09-1.24) in case-control or cross-sectional studies. Subgroup analysis on milk forms determined a stronger association in skim milk consumers (OR=1.24, 95% CI 1.13-1.37) than in low-fat consumers (OR=1.14, 95% CI 1.08-1.22) and full-fat consumers (OR=1.13, 95% CI 1.05-1.21). The pooled OR was greater for high intake level of milk (OR=1.12, 95% CI 1.01-1.24) than medium intake level of milk (OR=1.08, 95% CI 1.00-1.17). A subset study of moderate to sever acne also found a positive association with milk consumption (OR 1.18, 95% CI 1.01-1.37), while no statistically significant association was found between mild acne risk and milk consumption (OR 1.14, 95% CI 0.86-1.51).

Conclusion:

This meta-analysis provides evidence of a positive association between milk consumption and acne risk.

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Abstract N°: 1096

Phase 4 Analyses: Trifarotene Reduces Atrophic Acne Scars Across All Skin Types With Greater Effect in Subjects with Higher Baseline Acne and Acne Scarring Severity

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Introduction & Objectives: Trifarotene is a retinoid with a uniquely high binding affinity to retinoic acid nuclear receptor gamma (RAR-ɤ). Treatment of acne with trifarotene cream (0.005%) significantly reduces atrophic scar counts vs vehicle (−5.9 vs −2.7; p<0.0001), with results apparent as early as week 2.

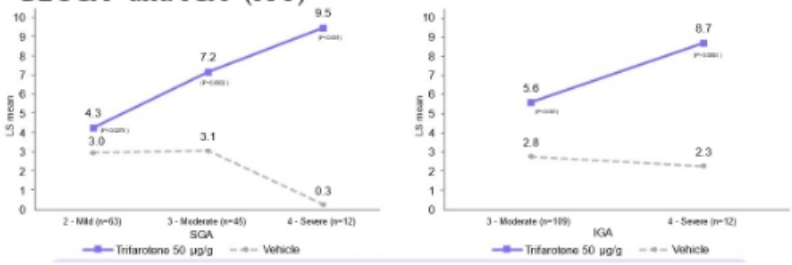
Materials & Methods: Subgroup analysis of a Phase 4, randomized, split-face, double-blind study of subjects (17-34 years old, N=121) with moderate-to-severe acne (investigator's global assessment [IGA] 3-4) and atrophic acne scars (>2mm) treated with trifarotene 50 µg/g or its vehicle. Analyses: age quartiles (≤18 years, >18 to 22 years, >22 to 27 years, and >27 years), gender, race, Fitzpatrick skin phototype, and baseline acne/scar global assessments (IGA/SGA, 1=almost clear to 4=severe).

Results: All demographic groups had reductions in atrophic acne scar counts comparable to the overall group. By age, acne scar count reduction for the trifarotene groups ranged from -4.6 (≤18 yrs) to -8.0 (>27 yrs) while in the vehicle group scar counts changed by -1.4 (≤18 yrs) to 3.4 in the group of patients aged >22 to 27 (P<0.05 vs vehicle for all groups). The greatest improvement was observed in patients aged >27. Similar acne scar reductions were seen by gender (-5.9 females and -6.0 males, both P<0.05); by race, -5.5 to -8.0 (P<0.05 for White and Asian); across Fitzpatrick types, -5.0 (I), -5.6 (II), -5.9 (III), -6.0 (IV), -7.8 (V), and -5.1 (VI) all superior to vehicle except VI (P<0.05). By baseline SGA, reductions in scar counts were -4.3 (mild), -7.2 (moderate), and -9.5 (severe), all statistically superior to vehicle (P<0.05, Figure) The greatest reduction was observed in patients with a baseline SGA and IGA severity of 3 (moderate) or 4 (severe). Generally, a greater reduction in scarring was observed in patients with a higher severity of acne scarring and/or acne at baseline.

Figure: *For the change in total atrophic acne scar counts in BL SGA , the difference between treatment groups was 1.4 for 2 (mild), 4.1 for 3 (moderate) and 9.2 for 4 (severe). 1 (almost clear) was not calculated due to small sample size; †For the change in total atrophic acne scar counts in BL IGA, the difference between treatment groups was 2.8 for 3 (moderate) and 6.4 for 4 (severe); ‡By imputing missing data using multiple imputation.

Conclusion: Trifarotene was efficacious in reducing acne scars across subgroups examined with a much higher treatment effect in subjects with more severe acne and/or acne scarring.

Improvement in total atrophic acne scar counts by BL SGA* and IGA† (ITT)‡



BL, baseline; IGA, Investigator's Global Assessment; ITT, intention-to-treat; LS, least squares; SGA, Investigator Scar Global Assessment

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Abstract N°: 1121

Efficacy and Safety of Oral Isotretinoin Monotherapy versus In Combination with Topical Clascoterone 1% Cream for Patients with Nodular Acne: A Comparative Retrospective Study

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Introduction & Objectives:

Nodular acne poses a significant challenge in affected patients, and often leads to profound psychological distress and diminished quality of life. Oral isotretinoin remains the cornerstone therapy for such patients. Combining oral isotretinoin with topical retinoids, benzoyl peroxide or other agents is often not recommended due to increased risk of cutaneous adverse effects namely irritation, erythema, xerosis and dermatitis. Topical clascoterone 1% cream is a topical anti-androgen for the treatment of acne vulgaris with excellent safety profile. It may offer enhanced efficacy with oral isotretinoin while potentially mitigating adverse events. This study aims to compare the efficacy and safety of oral isotretinoin monotherapy versus combination therapy with topical clascoterone 1% at week 24.

Materials & Methods:

This was a retrospective study where patients' records were reviewed between June 2023 to April 2024 at university-based dermatology clinics. A total of 75 patients aged ≥ 12 years with nodular acne were included in the analysis. 44 patients received oral isotretinoin at a dosage of 0.5-0.8 mg/day for at least 24 weeks (Isotretinoin Monotherapy Group), and 31 patients received the oral isotretinoin 0.5-0.8 mg/day in combination with topical clascoterone 1% cream twice daily for at least 24 weeks (Combination Therapy Group). Patients were followed every 4 weeks for assessment. Outcome measures included the number of acne lesions, Investigator's Global Assessment (IGA) success rate at week 24, time for clearance of acne lesions, and incidence of side effects, specifically dryness and xerosis of the face.

Results:

At week 24, patients in the Combination Therapy Group demonstrated a significantly greater reduction in the number of acne lesions compared to those in the Isotretinoin Monotherapy Group ($p<0.05$). Additionally, a higher proportion of patients in the Combination Therapy Group achieved IGA success at week 24 compared to the Monotherapy Group ($p<0.05$). Mean time to clearance of acne lesions was shorter in the Combination Therapy Group. Although the rate of dryness/xerosis of the face was lower in the Combination Therapy Group compared to the Monotherapy Group, the difference was not statistically significant.

Conclusion:

Combination of oral isotretinoin and topical clascoterone 1% demonstrates superior efficacy in reducing acne lesions and achieving IGA success compared to oral isotretinoin monotherapy in patients aged 12 and above with nodular acne. Further investigation with larger sample sizes and extended follow-up periods is warranted to confirm these findings and ascertain the long-term safety and efficacy profiles of combination therapy.

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Abstract N°: 1182

Prospective, open label, multicenter, single arm, Phase IV study for evaluation of safety, tolerability and efficacy of minocycline hydrochloride topical gel 4% in Indian patients with moderate to severe acne vulgaris.

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Introduction & Objectives:

Oral antibiotics are considered first-line therapy for the treatment of moderate-to-severe (M2S) acne.1 Though topical antibiotic; clindamycin and erythromycin, are available, their use has been limited by increasing reports of resistance.2 In comparison, tetracyclines are less susceptible to resistance, and, of the tetracycline class, minocycline, in particular, has the lowest rate of resistance.3,4 Minocycline is a semisynthetic, second generation tetracycline with proven anti-inflammatory and bacteriostatic properties.5,6 However, it is associated with significant systemic adverse events.1 Topical minocycline 4% gel is developed to circumvent the systemic side effects associated with the oral formulation and is intended to use in the treatment of M2S acne vulgaris.5 The objective of this study was to evaluate safety, tolerability and efficacy of minocycline hydrochloride topical gel 4% in Indian patients with moderate to severe acne vulgaris.

Materials & Methods:

This prospective, open label, multicenter, single arm, Phase IV study was conducted in 256 subjects across 8 centers in India. Primary objective included evaluation of local skin tolerability (erythema, dryness, hyperpigmentation, skin peeling and pruritus) and adverse events (AE) reported during study period. Secondary objective was to evaluate efficacy in terms of change in inflammatory and non-inflammatory lesion count from baseline till 12 weeks along with investigator global assessment (IGA) treatment success at week 12.

Results:

Out of 256 subjects, 65 (25.39%) subjects had 100 Treatment Emergent Adverse Events (TEAEs) and drug-related TEAEs occurred in 42 (16.41%) subjects. The most common AE reported were dry skin 17 (6.64%), erythema 20 (7.81%), pruritus 26 (10.16%), and skin hyperpigmentation 18 (7.03%). Majority of the adverse event were mild in nature and all the adverse events resolved completely with no discontinuation of the study. No new safety signals were detected in the study. At Week 12, for skin tolerability assessment, over 95% of subjects had no or only mild signs and symptoms. Over the 12-week, minocycline 4% gel showed significant reductions in inflammatory and non-inflammatory lesion counts ($p<.0001$). Success rates was observed in 156/256 (64.46%) of the subjects by week 12.

Conclusion:

The results of this phase 4 study demonstrated that topical minocycline 4% gel appeared to be safe, effective, and well-tolerated for the treatment of acne with no new safety signals. The safety profile for Indian patients was

similar to that seen in landmark clinical studies for minocycline 4% foam. Taken in its entirety minocycline 4% gel provides a strong evidential foundation for a new topical treatment option for patients with M2S acne.

Table 1: Summary and analysis of Skin Tolerability assessment at week 12 [n (%)]

Parameter	Absent	Mild	Moderate	Severe
Erythema	238 (98.34%)	3 (1.23%)	1 (0.41%)	0 (0%)
Dryness	241 (99.6%)	1 (0.41%)	0 (0%)	0 (0%)
Hyperpigmentation	212 (87.6%)	17 (7.02%)	12 (4.95%)	1 (0.41%)
Skin Peeling	242 (100%)	0 (0%)	0 (0%)	0 (0%)
Itching	242 (100%)	0 (0%)	0 (0%)	0 (0%)

Table 2: Summary and analysis of non-inflammatory and inflammatory lesion count change from baseline

	Non-inflammatory lesions		Inflammatory lesions	
Visits	**Mean ± SD**	**p-value**	**Mean ± SD**	**p-value**
Baseline	44.07 ± 16.43	NA	29.81 ± 7.27	NA
Week 3	35.44 ± 14.88	<0.001	22.80 ± 7.88	<0.001
Week 6	25.93 ± 12.55	<0.001	16.10 ± 7.37	<0.001
Week 9	18.35 ± 10.97	<0.001	10.84 ± 6.49	<0.001
Week 12	11.44 ± 10.88	<0.001	6.42 ± 6.63	<0.001

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Abstract N°: 1273

Effects of heat shock protein 90 inhibition with RGRN-305/MC2-32 on skin biomarkers in patients with hidradenitis suppurativa

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Introduction & Objectives:

In a recent randomised placebo-controlled study (NCT05286567), oral RGRN-305/MC2-32, a heat shock protein 90 (HSP90) inhibitor, demonstrated promising clinical efficacy and good safety profile in hidradenitis suppurativa patients. Among the RGRN-305/MC2-32-treated patients, five of 10 patients were HiSCR75 responders and three of 10 patients were HiSCR90 responders, whereas no HiSCR75 responders were observed among the placebo-treated patients. However, the underlying molecular effects of HSP90 inhibition remain unexplored in hidradenitis suppurativa. This study aimed to investigate the effects of RGRN-305/MC2-32 on skin biomarkers in hidradenitis suppurativa.

Materials & Methods:

Skin biopsies were collected from the 15 hidradenitis suppurativa patients participating in the aforementioned randomised placebo-controlled study, with 10 patients receiving 250 mg RGRN-305/MC2-32 and five patients receiving placebo once daily for 16 weeks. At baseline, 3-mm punch biopsies were obtained from an index hidradenitis suppurativa lesion (i.e., inflammatory nodule) and non-lesional skin. At week 16, biopsies were obtained from the previously biopsied index lesion. Gene expression and histological analyses of the skin biopsies were performed using bulk RNA sequencing, real-time quantitative PCR and immunohistochemical staining. Additionally, punch biopsies of active tunnels from six patients not participating in the clinical trial were treated *ex vivo* with RGRN-305/MC2-32, and the gene expression of key inflammatory genes was assessed.

Results:

RNA sequencing and quantitative PCR demonstrated that key inflammatory genes, including*IL1B*, *IL6*, *CXCL8*, *IL17A*, *IL17F* and *IL23,* exhibited trends of downregulation in RGRN-305/MC2-32-treated HiSCR75 responders and to a greater degree in HiSCR90 responders compared with placebo at week 16.** Given the few patients and limited statistical power, no differentially expressed genes were observed between RGRN-305/MC2-32-treated HiSCR75 responders (n=5) and placebo-treated patients (n=5) at week 16. However, nine differentially expressed genes, including *IL24*, *CXCL5* and *MMP10,* were downregulated in RGRN-305/MC2-32-treated HiSCR90 responders (n=3) compared with placebo. In accordance, the quantitative immunohistochemical analysis showed trends of reduced skin infiltration of immune cells (CD3+, CD11c+ and myeloperoxidase+ cells) in RGRN-305/MC2-32-treated responders.

In the *ex vivo* model, RGRN-305/MC2-32 significantly downregulated inflammatory genes such as*IL1B*, *CXCL8* and *IL17A.*

Conclusion:

HSP90 inhibition with oral RGRN-305/MC2-32 was associated with the downregulation of multiple key

inflammatory genes and reduced infiltration of immune cells in the skin of hidradenitis suppurativa patients. These findings support that HSP90 inhibition exerts a broad immunomodulation of multiple inflammatory pathways, supporting its potential as a therapeutic strategy for hidradenitis suppurativa.

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Abstract N°: 1348

New propolis extract titratred in bioactive components targeting roxP downregulation of C. acnes biofilm-forming strains

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Introduction & Objectives:Acne is a highly prevalent skin condition with multifactorial pathophysiology, where *C. acnes* overgrowths generate inflammation. *C. acnes* is an aerotolerant anaerobe that can grow and adhere through formation of biofilms to almost any surface, which enables chronic infections. Acne treatment with antibiotics can induce topical antimicrobial resistance and cause cutaneous dysbiosis. An inevitable need for a change in acne management approaches, therefore, exists.

The aim of the present study was to assess the effect of a novel, propolis titrated extract (PTE) against

C. acnes, whilst maintaining the natural diversity of skin-friendly microflora, and to investigate its effect against mechanisms of attachment and colonization of *C. acnes* as well as against its growth and biofilm formation. The extract was additionally tested in keratinocytes to assess its activity on the transcriptional regulation of genes associated with antimicrobial and anti-inflammatory activity.

Materials & Methods:In the present study, several propolis fractions were chemically analyzed (GC-MS) and their activity was tested against *C. acnes* until a specific combination provided reproducible results. The PTE's effect on forehead microbiome was based on its influence on the growth behavior in cultures of the area's typical microbes and specific pathogenic microbial species, analyzed separately, along with the microbiome's biodiversity assessed ex vivo, by testing PTE in forehead microbiome samples from two healthy volunteers. The crystal violet staining method was employed to assess biofilm inhibition activity in the *C. acnes* strain ATCC6919. Total RNA isolation from *C. acnes* cultured in the presence of different concentrations of PTE and cDNA synthesis were performed and expression of *rox-P* gene was measured through Real-Time Polymerase Chain Reaction (RT-PCR).

Transcriptional regulation of genes associated with antimicrobial and anti-inflammatory response of NHEKs was assessed via RT-PCR in cDNAs, after incubation with PTE.

Results:The PTE with greater effect was standardized in specific molecular ratios of sesquiterpenes, triterpenes, esters, flavonoids and chalcones. It was characterized as microbiome friendly in forehead's normal microbiome with a significant observed decrease in the newly formed and established *C.acnes* biofilm, in a concentration-analogous manner. Decreased expression of virulent *rox-P* gene was also observed.

Upregulation up to 55-fold of IL-4 gene and up to 6-fold of DEF1B was demonstrated in NHEKs, along with an up to 5-fold and up to 4-fold downregulation of ITG-B and CLCX-12 genes respectively, after 24h incubation with PTE.

Conclusion:The suggested efficacy of PTE as an antimicrobial agent, specifically targeting biofilm-forming

pathogenic strains of *C. acnes*, via *rox-P* downregulation, represents an alternative strategy to modulate the behavior of skin microbiota in acne, paving the way for next generation acne-targeting products.

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Abstract N°: 1362

Laser Treatment of Rosacea: 532 nm KTP Laser versus 595 nm Pulsed Dye Laser

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Introduction & Objectives:

Rosacea is a persistent inflammatory skin condition and primarily affects the cheeks, nose, forehead, and chin. The pulsed dye laser (PDL) is frequently used for treating rosacea, but its technical instability and costly maintenance necessitate alternatives. The large-spot 532 nm KTP laser was recently introduced into the field of dermatologic laser medicine and is utilized for various vascular lesions. The aim of this study is to assess the effectiveness and safety of the 532 nm KTP laser in comparison to the 595 nm PDL for rosacea treatment.

Materials & Methods:

A prospective, clinical study. Patients were allocated to the KTP laser or the PDL in a 2:1 ratio, receiving 1 to 3 treatment sessions at intervals of 4 – 6 weeks. A follow-up visit was scheduled 6 weeks after last session. Efficacy evaluation involved standardized three-dimensional imaging with computer-assisted evaluation of erythema (colorimetry) and clinical assessment by two blinded investigators. Pain intensity (numeric rating scale) during treatment, tolerability, and patient satisfaction (5-point-scale) were evaluated.

Results:

45 patients (mean age 51 years) were included. Evaluation showed significant decrease in erythema with no significant difference between the two groups. Patients subjected to the KTP laser reported significantly lower pain level during treatment (2.5/10) compared to the PDL group (4.1/10). Both lasers showed a good safety profile, causing only temporary erythema and swelling. Relevant purpura was only observed in in the PDL-treated individuals. No remarkable adverse effects were observed. Both groups showed high levels of patient satisfaction.

Conclusion:

The KTP laser and PDL demonstrate both efficacy in treating rosacea. Due to comparable effectiveness, reduced downtime, and more stable technology, the large-spot KTP laser may act as an alternative to conventional PDL treatment. Additional prospective clinical trials are necessary to thoroughly assess long-term effects of the KTP laser.

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Abstract N°: 1385

Daylight vs Red Light photodynamic therapy with methyl aminolevulinate for acne vulgaris (case series)

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Introduction & Objectives:

Photodynamic therapy is a technique that uses a photosensitive topical product that is activated by a specific type of light to produce an action in tissues especially cell death, microorganisms, reduces vascularization, and generates a regulatory immune response. The sebaceous gland and the microorganisms present in acne are susceptible to being treated with this technique. The use with daylight, can show benefits improving de quality of life for our patients and increase the tolerability.

Materials & Methods:

This is a series of cases study. The selected patients could belong to any sex or age over 16 years old, who attended the consultation in our Barcelona´s private office with active inflammatory acne, without any other medicine. All patients voluntarily and by consent agreed to participate. There were 3 groups studies: photodynamic therapy with daylight, photodynamic therapy with red light 630 nm standard procedure and a group with topical treatment. The photosensitizing used was metil aminolevulinate (MAL).

They were submitted a dermatologic evaluation, photographic tracking canon G15, dermatoscopy and tests (quality life, investigator global assessment of acne, informed consent for study participation) .

Results:

There were 54 patients evaluated and 30 included. In relation to the severity index according to the doctor, no significant differences were found between the groups (p=0.097). For test European severity scale, there were significant differences between the groups that received photodynamic therapy (both daylight and red light) versus the topical therapy group. The 3 groups presented statistically significant results (p=0.083) in terms of reducing the severity of their acne after 60 days of treatment. Most patients treated with photodynamic therapy were willing to repeat a fourth treatment session with photodynamic therapy. The side effects of the treatment showed some discomfort such as redness, pruritus, acneiform eruption, and were considered tolerable by the patient.

Conclusion:

The present study is a series of cases where we demonstrate how acne can be treated with photodynamic therapy MAL-PDT lamp (LR-PDT) (red light 630 nm) and day-MAL-LIGHT (LD-PDT). Daylight PDT option gives us good results with better tolerance and greater patient adherence than the conventional one. Thus, cosmetic care is a valuable and supportive tool in any case, although it usually requires additional treatment, especially in shock therapies for moderate to severe acne.

Future research should expand this topic with a larger number of patients and we propose for future studies a variant that would consist of a first office session with MAL-PDT (PDT-LR 630 nm) and in which the way of perform at home the 2 or 3 additional sessions that would be self-administered with daylight (PDT-LD) at a frequency every 2 to 3 weeks, and actually using the same photosensibilizated tub if is conserved y the frezer in the latest 3

mosth after opened. We believe that this dual scheme would allow to achieve better results in the short and medium term, as well as greater tolerance and adherence.

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Abstract N°: 1393

ACNE: a look into the therapy of the future

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Introduction & Objectives:

According to global study of desease burden, acne ranks 8th among inflammatory skin diseases.

Acne exposome (i. e. a set of endogenous and exogenous factors) has a major role in the development of the disease. As well as the condition of sebum and the epidermal barrier.

A trend toward adult acne is becoming more common and course of illness more severe. Thus, the frequency of severe forms of acne has increased to 20%, and resolution of the process with scars is observed in 25% of patients. The “gold standard” for the treatment of severe forms of acne is a course of systemic retinoids until the cumulative dose is reached.

Modern dermatology is increasingly interacting with aesthetic medicine. We see numerous speeches and publications on the use of Enegry Based Devices methods in combination with systemic retinoids, which provides faster healing and correction of post-acne manifestations.

It is known that systemic isotretinoin treatment is accompanied with side effects. One of them is also an indicator of response to therapy - skin and mucous drying, cheilitis. So, it was relevant to study the effectiveness of complex therapy - systemic isotretinoin and hyaluronic acid injections.

Materials & Methods:

Our study was conducted with hyaluronic acid modified with vitamin C and riboflavin. This product remains in the tissues longer after injection, so it is possible to increase the interval between sessions. It also provides a healing effect.

A clinical observation of 20 patients with severe forms of acne was conducted. Patients aged 18 to 35 years were receiving systemic isotretinoin therapy at a standard course dosage.

1st group – 10 patients with systemic isotretinoin therapy and topical moisturizing.

2nd group - 10 patients with systemic isotretinoin therapy and topical moisturizing. A month after the start of therapy, patients additionally received injection therapy with hyaluronic acid, vitamin C and riboflavin, 5 sessions, once in two weeks.

Results:

Inclusion of injection therapy with hyaluronic acid, vitamin C and riboflavin helped reduce dry skin and mucous membranes, improved tolerability of systemic isotretinoin therapy, reduced the appearance of post-acne symptoms and increased patient compliance with this type of treatment.

Conclusion: The inclusion of injection therapy in the course of treatment with systemic retinoids allows us to improve the tolerability of this therapy and reduce the number and severity of common side effects. This will

increase patient compliance with this type of treatment. In the future, we plan to continue research in order to have a larger sample of patients with this nosology.

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Abstract N°: 1481

Report of 5 successful pediatric hidradenitis suppurativa patients with tofacitinib

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Report of 5 successful pediatric hidradenitis suppurativa patients with tofacitinib

Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease presented by inflammatory nodules, abscesses, and fistulae. It usually presents after puberty .The most sites of presentation are the axillae, inguinal folds, and perianal area.The mean age of onset of HS is between 20 to 24 years. According to previous studies, less than 2% of people with HS had disease onset before age 11 years.

Materials & Methods: . In this study we report 5 patients under 11 years with severe suprative hydradenit were treated by The Janus kinase (JAK) inhibitor, tofacitinib.

Results: 4 cases were females (age:6, 7.5, 8 and 11 years old)and 1 patient was male(10 years old).All of them were stage 3 based on Hurley stage. Comorbidities include acne vulgaris,hypothyroidisim,depression,obesity. Tofactinib 5 mg 2x daily for 9 months. At 9 months, two cases were pain and drainage free and three cases showed significantly improved in Quality of life and severity of disease.No complication was recorded.

Conclusion: The Janus kinase (JAK) inhibitor(tofacitinib) suppressing inflammatory cytokines responsible for HS such as interleukin (IL)-1β, IL-6, and tumor necrosis factor (TNF)-α.We report 5 pediatric patients with ulcerating HS not responding to numerous treatments such as Antibiotics. One-third of hidradenitis suppurativa cases are pediatric patients.There are few clinical studies and guidelines about pediatric hidradenitis suppurativa treatment. Here, we report 5 cases with clinical presentation, comorbidities, and management.Further studies are needed due to intensive emotional impact of the disease on children

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Abstract N°: 1500

Assessment of Neuro-Psychiatric and Dermatological Characteristics in Patients with Neurogenic Rosacea: A Clinical Study

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Introduction & Objectives: Neurogenic rosacea is a newly defined subtype of rosacea characterised by prominent facial erythema, burning, stinging and itching accompanied by neuropsychiatric disorders. We aimed to evaluate both dermatological and neurological symptoms of 10 patients with neurogenic-neuropathic rosacea.

Materials & Methods: Ten patients with neurogenic-neuropathic rosacea were evaluated by a dermatologist and a neurologist to identify disease characteristics, triggering factors, and the relationship between neurological disease and rosacea.

Results: All ten patient in our study were female. Eight patients reported migraine and one tension-type headache. Among the participants, five individuals identified common triggers for both their neuropsychiatric conditions and rosacea symptoms, while eight patients reported that their rosacea symptoms worsened due to an exacerbation of their neuropsychiatric disease. Among the patients who had common triggers for both rosacea and neuropsychiatric conditions, four out of five had migraines. Of the eight patients who reported that their neuropsychiatric condition made their rosacea worse, seven had a history of migraine.

Conclusion: Based on the clinical findings and the currently unidentified cause, we suggest that it would be more appropriate to refer to this newly identified group of patients as neuropathic rosacea rather than neurogenic rosacea. The remarkable association between neurogenic inflammation and migraine observed in this unique patient group suggests that there may be underlying mechanisms that are common to both migraine and neuropathic rosacea. A better understanding of these pathogenetic mechanisms would provide valuable insights into the diagnosis, treatment and ongoing management of this challenging patient population.

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Abstract N°: 1621

Clinical and analytical predictive factors of improvement in patients with severe Hidradenitis Suppurativa under Adalimumab treatment: A prospective cohort study.

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Introduction & Objectives:

Adalimumab is a biological approved drug for the treatment of Hidradenitis Suppurativa (HS). However, it is only effective in certain patients, with significant clinical response in about 50% of patients. To date, there are no clinical nor analytical predictive factors for HS improvement under Adalimumab treatment. Hemogram indexes, such as Systemic Immune Inflammation Index (SIII) and Neutrophil/Lymphocyte ratio (NLR) have been proposed as predictive therapeutic factors in a variety of skin and non-skin diseases. The aim of the present study was to assess whether SIII and NLR could be useful markers of therapeutic response to Adalimumab in HS patients.

Materials & Methods:

A prospective cohort study was performed. Severe HS patients who underwent Adalimumab treatment were assessed before starting the treatment and after an 8-month period. Socio-demographic (including age, sex, body mass index -BMI-, current smoking habit and cumulative tobacco consumption -packages/year-) and clinical (International Hidradenitis Suppurativa Severity Score System -IHS4- and Hurley stage) were collected, as well as SIII (neutrophils*platelets/lymphocytes) and NLR.

Results:

Thirty-one patients (71% men) were included, with a mean age of 44 years; 71% were smokers and mean BMI was 28.7kg/m2. Hurley stage was as follows: 16% stage I, 52% stage II and 32% stage III. Mean basal IHS4 was 17.8, which significantly decreased to 11.35 ($p<0.01$) after adalimumab treatment. This decrease was related to male sex, history of acne conglobate, as well as to greater basal SIII and NLR values ($p<0.05$). Worse response was found for patients with current smoking habit ($p<0.05$). No correlation was found for Hurley stage, cumulative tobacco consumption nor BMI ($p>0.30$).

Conclusion:

Despite limited clinical effectiveness (8-month IHS4>10, indicating severe disease), some factors seem to be associated with greater IHS4 improvement under adalimumab treatment. Among them, hemogram indexes, such as SIII and NLR are convenient and accesible tools which could help to predict clinical response. Moreover, our research highlightes the crucial role of stopping tobaco consumption, as non-active smokers had significant better responses than current smokers, regardless of cumulative tobacco consumption in the past.

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Abstract N°: 1623

Subclinical atherosclerosis burden in hidradenitis suppurativa patients and associated factors: a cross-sectional study.

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) has been associated with systemic inflammation and could be linked to greater cardiovascular risk (CVR). Subclinical atherosclerosis, which is related to worse cardiovascular outcomes, can be measured by means of carotid intima-thickness (IMT). The aim of this study was to evaluate carotid IMT in a cohort of HS patients, and to explore the potential impact of disease severity and clinical characteristics on IMT measurements.

Materials & Methods:

A cross-sectional study was performed including patients with severe HS who were candidates to biologic therapy, before starting the treatment. Ultrasound with specific software was employed for measuring carotid IMT. Socio-demographic (including age, sex, tobacco consumption and Body Mass Index -BMI-), clinical (years of disease evolution, International Hidradenitis Suppurativa Severity Score System -IHS4- and Hurley stage) and analytical data (pro-Brain Natriuretic Peptide -pro-BNP- and lipidic profile) were collected.

Results:

Eighty-four patients (64% men) were recruited. Mean age was 42,7 years old. Mean Body Mass Index was 29kg/m2, and 68% were active smokers. Mean IHS4 score was 21; Hurley stages were: 11% stage I, 52% stage II and 37% stage III. Greater carotid IMT was associated with age, male sex, years of disease evolution, greater cumulative tobacco consumption, greater Hurley stage, lower HDL cholesterol levels, and higher triglycerides, ferritin and pro-BNP levels. No association was found for BMI nor IHS4 ($p>0.20$).

Conclusion:

Subclinical atherosclerosis burden in HS patients is associated to classical CVR factors, such as age, male sex, tobacco consumption and lipidic profile levels alterations. Moreover, it also correlates with longer disease duration as well as disease structural damage, given the association found for Hurley stage. Therefore, there seems to be a link between arterial and skin structural damage which could depend on cumulative (disease duration and Hurley stage) rather than current (IHS4) inflammatory burden.

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Abstract N°: 1721

acne scars management- conventional vs newer growth factor concentrate /prp

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Introduction & Objectives: Acne can be defined as a chronic, self-limiting, inflammatory disease of pilosebaceous unit, manifesting generally in adolescence with pleomorphic lesions like comedones, papules, nodules, and cysts. Extensive scarring can occur as a sequalae.

Microneedling radiofrequency(MNRF) is a minimally invasive procedure involving superficial and controlled puncturing of the skin by stamping with miniature fine needles along with radiofrequency waves delivered at a controlled depth in the skin.

The obejctive was to determine the efficacy of a solo MNRF procedure as comparing to when combined with GFC(growth factor concentrate) and also the comparison with conventional PRP(platelet rich plasma).

Materials & Methods:

Inclusion criteria:

1. Patients with atrophic facial acne scars.
2. Aged 18-40 years

Exclusion criteria

1. Patients with atrophic facial scars due to other causes
2. Patients on oral isotretinoin treatment.
3. Patients with active acne.
4. Patients with recurrent herpes simplex
5. Patients with keloidal tendency
6. Patients with hematological anc endocrinological disorders

Forty patients with facial atrophic acne scars were offered four sittings microneedling radiofrequency(MNRF) treatment of 4 weeks apart in one group and MNRF with GFC in another group and MNRF with PRP in the third group.

Depth of 1.5mm to 3.2mm was used.

At the end of the treatment duration the scars were graded using Goodman and Baron Quantitative grading system as used in the beginning, photographs of the face were compared

Results: On Comparing the clinical improvement of Acne scar grading between the groups by Man Whitney U test: first sitting p = 0.447, 8th week p=0.522, 16th week p= 0.283.

The clinical improvement was noted in the percentages scars when compared in of individual acne.

Forty patients of atrophic facial scarring were offered multiple sittings of microneedling treatment and their scars were evaluated and graded clinically by Goodman, and Baron qualitative grading and by serial photography at the

start as well as at two months after the conclusion of the treatment protocol. Out of these 40 patients, 34 achieved a reduction in the severity of their scarring by one or two grades (88.7%). Excellent response was seen in rolling or boxcar scars, while moderate response was seen in pitted scars

Conclusion: This study confirms the efficacy of MNRF in acne scarring treatment as a stand-alone treatment. The improvement noted in MNRF with GFC was much higher approximately 34% in all groups and in MNRF WITH PRP was an improvement by approximately 20% of individual acne scars, as compared to baseline,

GFC and PRP Add a synergistic role in the efficacy of MNRF by improving healing time and regeneration.It should also be noted that patients treated with the combination of GFC or PRP showed marked patient satisfaction.

Although there have been multiple such similar studies done in the past, there are sparse studies that have used Goodman and Baron's.

Quantitative scoring system as opposed to the more popular Qualitative scoring system and represents an interesting tool for further in-depth research ano additional experimentation on the use of PRP/GFC in association with other techniques in treatment of acne scars.

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Abstract N°: 1760

PsO and HS: toward a better phenotypical characterization

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Introduction & Objectives:

Hidradenitis suppurativa (HS) and psoriasis are both chronic and relapsing inflammatory skin conditions. It is known that HS and psoriasis may be associated but there are limited data characterizing this population of patients.

To describe the prevalence of psoriasis in a validated large cohort of HS patient and to assess whether this association might affect specific patient or disease characteristics of HS patients.

Materials & Methods:

Sociodemographic and clinical data of 1,600 psoriasis, 269 HS and 19 psoriasis plus HS patients attending our outpatient clinic during the last 5 years were retrospectively retrieved and analyzed.

Results:

Of all patients with HS (n=269), 7% (n=19) also had psoriasis. While psoriasis was the main clinical dermatological condition in 7/19 patients, in 12/19 HS was the most disabling disease. In 10/19 patients the diagnosis of HS preceded the one of psoriasis. Overall median age of onset did not differ between the two groups. A positive family history of psoriasis was reported in 12/19 patients, while psoriasis and HS in 2/19 patients. In two patients, psoriasis developed as a paradoxical effect of adalimumab for HS. One of them had a positive family history of psoriasis. Smoking was reported in 16/19 patients, 9/19 patients had BMI≥25 (6/9 patients, BMI≥30). 10/19 patients had comorbidities including psoriatic arthritis (PsA) (6/19), autoimmune thyroid abnormalities (3/19), psychiatric disorders (2/19) and hypertension (2/19). One patient had concurrent PsA, Crohn's disease, and pyoderma gangrenosum. In 2/19 patients, only topical agents were required to obtain clinical benefits for both psoriasis and HS, while systemic treatments were used in 17/19 patients. Among the latter, 13 were on biologics.

Conclusion:

Results from this retrospective study suggest that patients with overlapping HS and psoriasis need systemic treatment. Continued effort to characterize patients with concomitant HS and psoriasis is necessary in order to tailor treatment and improve overall patient quality of life.

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Abstract N°: 1776

Effectiveness of topical metformin 30% in treating hidradenitis suppurativa: a new therapeutic approach

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease characterized by the presence of painful nodules, abscesses, and draining fistulas. HS is challenging to treat and significantly impairs the patient's quality of life. Oral metformin is commonly used in HS treatment, with known efficacy and safety profile, but variable tolerance. Recently, topical metformin 30% has shown evidence of effectiveness in treating inflammatory skin lesions in acne vulgaris.

The aim of this study was to study the safety and efficacy of topical metformin 30% in the treatment of HS.

Materials & Methods:

Fifteen adult patients with clinically diagnosed HS were enrolled in this single-center prospective study. Patients were treated with topical metformin 30% emulsion applied daily to the affected areas. The primary outcome was the change in the Hidradenitis Suppurativa Lesion, Area, and Severity Index (HS-LASI) from baseline to week 12. Lesions were assessed using both clinical examination and high-frequency ultrasound Doppler (HFUS-Doppler) to quantify changes in lesion count, size, and inflammatory activity. Secondary outcomes included changes in patient-reported outcomes for pain and pruritus, treatment satisfaction, and tolerability. Assessments were performed at baseline and after 4 and 12 weeks of treatment. Potential adverse events were collected.

Results:

Fifteen patients (83% female) with HS were included. The mean age of participants was 41 years, with an average BMI of 36. Among the patients, 25% were classified as Hurley stage 1, 67% as Hurley stage 2 and 8% as Hurley stage 3, with 75% categorized as latent class (LC) 1 and 25% as LC 2. The treated locations were the axillae (40%), groins (30%), inframammary regions (20%) and buttocks (10%). Preliminary results for the first patients that completed four weeks of treatment demonstrated a 30% reduction in the HS-LASI. Furthermore, there was an 18% reduction in the count of inflammatory nodules, with 50% of cases showing improvement on HFUS-Doppler indicating reduced inflammation. Patient-reported outcomes also showed significant improvement, with a 31% reduction in pain. Topical metformin was well-tolerated, only one patient reported self-resolving mild pruritus post-application. No systemic adverse events were reported. Definitive results to be presented in September will provide a comprehensive analysis of the treatment's efficacy and tolerability at 12 weeks.

Conclusion:

Topical Metformin 30% emulsion shows promising potential as a safe and effective treatment for HS, offering a significant clinical improvement with an excellent safety profile. This study supports further investigation into topical metformin as a valuable therapeutic option for HS management.

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Abstract N°: 1848

"Unveiling the Mysteries: Predictive Factors Shaping Acne Scar Formation"

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Introduction & Objectives:

Acne is a common chronic inflammatory dermatosis with multiple factors, especially prevalent among adolescents and young adults. While it is generally perceived as a benign condition, its impact on individuals' quality of life can be profound, particularly when permanent scars develop. Acne scars are a frequent and often debilitating consequence, not only altering the skin's aesthetic appearance but also having a significant psychological impact, affecting patients' self-confidence and mental health. The aim of our study is to identify the various factors associated with the development of scars in acne patients.

Materials & Methods:

This is a retrospective, descriptive, and analytical study conducted on patients who consulted for acne between January 2020 and January 2024. Two groups of patients were defined: the first group comprised patients who consulted for acne but did not develop scars. The second group included patients who also consulted for acne but had scars resulting from this skin condition.

Logistic regression was used to study the factors associated with the occurrence of scars in both univariate and multivariate analyses.

Results:

Among the 340 acne patients included in the study, 232 (68.2%) had scars. The mean age in the group with acne scars was 26.19 years +/- 6.99, while in the group without acne scars, it was 23.02 years +/- 5.16, showing a statistically significant difference (odds ratio (OR) = 1.075 (95% CI: 1.035-1.117; $p<0.001$). Regarding gender distribution, a female predominance was noted in both groups.

The percentage of severe acne in the scar group was 81.9%, compared to 38.8% in the non-scar group, with acne severity being a predictive factor for scar occurrence (OR = 6.81 (95% CI: 2.68-13.32); $p<0.001$).

Concerning family history, 78.4% reported a family history of acne in the scar group, compared to only 16.7% in the non-scar group, showing a statistically significant association (OR = 38.81 (95% CI: 14.03-107.36); $p<0.001$).

Regarding photoprotection, no significant difference was observed between the two groups. However, lesion manipulation was identified as a major risk factor (OR of 17.319 (95% CI: 9.682-30.98); $p<0.001$).

Similarly, prolonged acne duration was strongly associated with scar formation (OR of 9.785 (95% CI: 5.63-16.99); $p<0.001$); in the acne scar group, patients' distribution according to the duration of their condition was as follows: 3.4% had acne for less than a year, 70.7% reported a duration of 1 to 5 years, and 25.9% for over 5 years. In contrast, in the non-scar acne group, the distribution was notably different, with 56.5% of patients developing

acne in the year preceding the study, 34.3% presenting a duration of 1 to 5 years, and only 9.3% reporting a history of acne of over 5 years.

The mean onset time of treatment in the scar group was longer compared to the non-scar group (9.42 months +/- 6.24 months vs. 5.23 months +/- 2.77 months), with a statistically significant difference between the two groups (OR of 1.208 (95% CI: 1.135-1.286); $p<0.001$).

Finally, isotretinoin intake was identified as a protective factor against acne scars (OR of 3.550 (95% CI: 1.399-9.007); $p<0.001$).

Conclusion:

By identifying predictive factors, clinicians can not only assess the individual risk of developing acne scars but also develop personalized prevention and treatment strategies to minimize their incidence and severity.

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Abstract N°: 1899

Performance of Er-YAG laser deroofing of recalcitrant Hidradenitis Suppurativa

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Introduction & Objectives:

Hidradenitis Suppurativa is a chronic, inflammatory disease. Despite the limited literature on the use of Er-YAG laser for deroofing in hidradenitis suppurativa, its mechanism is similar to Carbon dioxide laser, suggesting that it could be a useful alternative treatment.

This study aims to assess the efficacy of Er-YAG laser treatment for hidradenitis suppurativa lesions, and identify potential factors associated with treatment success.

Materials & Methods:

Medical records of 94 patients with Hurley stage II or III disease who underwent Er-YAG laser treatment were retrospectively reviewed. The laser was used to incise the skin and subcutaneous fat, followed by vaporization to remove diseased apocrine glands. Wound healing was achieved through secondary intention. Post-treatment follow-up was scheduled at 8 weeks to assess remission and at 6 months to assess recurrence.

Results:

Complete remission was achieved in 87% of patients at 8 weeks, and 94% of these patients were disease-free at 6 months. Patients reported high satisfaction. Significant negative associations with outcomes were found for obesity (Body Mass Index ≥30) and Hurley stage III disease

Conclusion:

Er-YAG laser deroofing is effective for hidradenitis suppurativa. Obesity and Hurley Stage III patients should be aware of their reduced success rates.

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Abstract N°: 1911

Safety and efficacy over one year of spesolimab treatment in patients with hidradenitis suppurativa (HS): Interim analysis of an open-label extension (OLE) study

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, recurrent inflammatory disorder characterized by painful inflammatory nodules, abscesses, and draining tunnels (dT). In a proof-of-clinical-concept study in patients with HS (NCT04762277), there was a decrease in lesion counts including dT over 12 weeks of spesolimab treatment, with a favourable safety profile. Here we present 1-year interim descriptive analyses from the open-label extension (OLE; [NCT04876391]) study.

Materials & Methods:

A total of 45 of 52 (86.5%) patients entered the OLE (prior spesolimab, n=30; prior placebo, n=15), receiving 600 mg open-label subcutaneous spesolimab every 2 weeks. Patients previously randomized to placebo received a 1200 mg intravenous spesolimab loading dose.

Results:

Safety analyses included patients with ≥1 year of spesolimab treatment (n=20) and those who prematurely discontinued treatment (n=25) (mean ± standard deviation [SD] treatment exposure: 40.3±25.3 weeks). Spesolimab was well tolerated (mostly mild/moderate adverse events [AEs]) with seven (15.6%) serious AEs, three (6.7%) severe AEs, no deaths, and four (8.9%) discontinuations due to AEs (prior spesolimab, n=1; prior placebo, n=3).

Over 50 weeks, mean absolute changes ± SD from baseline for the prior spesolimab (n=15) and prior placebo (n=7) groups, respectively, were −1.3±2.9% and −3.7±4.4% for dT count, −5.7±5.4% and −3.7±4.6% for inflammatory nodule count, −0.9±2.5% and −2.4±5.6% for abscess count, and −12.8±14.2 and −23.4±29.6 for International Hidradenitis Suppurativa Severity Score System (IHS4) score.

Conclusion:

In this descriptive analysis of the OLE, the safety profile of spesolimab was favourable, and there was a sustained reduction in all lesion types and IHS4 score over 1 year of treatment. These results support further development of

spesolimab in HS.

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Abstract N°: 2006

Antimicrobial Resistance Trends in Hidradenitis Suppurativa Lesions

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Introduction & Objectives:

Antibiotic (AB) therapy serves as an initial measure in addressing hidradenitis suppurativa (HS). This study aims to: (i) evaluate the prevalence and AB resistance of bacterial growth in HS patients, and (ii) assess the clinical significance of the data obtained for guiding the selection of the most effective AB therapy.

Materials & Methods:

A cross-sectional study was conducted on consecutive HS patients seen at the Dermatology Department at the University Hospital of Heraklion, in Heraklion, Crete, Greece, from January 2019 to June 2023, who were not on any antibiotics in the last three months. Patients with HS were eligible for inclusion if they were aged 18 years or older, had not received any topical or systemic antibiotic (AB) therapy in the preceding three months, and presented with active inflamed purulent HS lesions from which skin swabs were collected.

Results:

From January 2019 to June 2023, a total of 103 HS patients participated in this study. Of these, 57.3% (59/103) were females and 42.7% (44/103) were males, with a median age of 35 years ±12.96. Among the participants, 27.2% (28/103) were classified as Hurley stage I, 50.5% (52/103) as Hurley stage II, and 22.3% (23/103) as Hurley stage III. Skin swabs were collected from various areas, with 35.9% (37/103) from the inguinal area, 21.4% (22/103) from the gluteal area, 29.1% (30/103) from the axillary area, and 13.6% (14/103) from the perianal area. From these 103 patients, 139 swab samples from purulent HS lesions were collected, of which 79.86% (111/139) tested positive for bacteria. Gram-positive isolates accounted for 73% (127/174) of the total isolates, while gram-negative isolates comprised 27% (47/174). Among the isolates, 52.3% (91/174) were aerobes, 13.8% (24/174) were anaerobes, and 33.9% (59/174) were facultative anaerobes. The most common bacterial families isolated were *Staphylococcaceae* (48.27%, 84/174), *Enterobacteriaceae* (14.94%, 26/174), and *Streptococcaceae* (6.89%, 12/174). The most frequently identified genus or species was *Staphylococcus epidermidis* (16.67%, 29/174), followed by *Staphylococcus haemolyticus* ((9.77%, 17/174), *Staphylococcus lugdunensis* (8.62%, 15/174), *Proteus mirabilis* (8.04%, 14/174), and *Staphylococcus aureus* (7.47%, 13/174). Antibiogram profiles of bacterial cultures revealed overall antibiotic (AB) resistance rates for fusidic acid at 62.8% (59/94), erythromycin at 58.5% (76/130), colistin at 54.5% (18/33), nitrofurantoin at 53.6% (15/28), oxacillin at 53% (44/83), clindamycin at 51.1% (68/133), minocycline at 50% (13/26), tetracycline at 32.9% (47/143), and mupirocin at 32.4% (12/37). The Cefoxitin screen was positive in 51.9% (42/81) of cases.

Conclusion:

HS patients display considerable resistance to bacterial proliferation, even with frequently prescribed ABs such as rifampicin, clindamycin, and tetracyclines, which are commonly recommended in HS treatment protocols. A targeted antibiotic therapy guided by microbiological assessments, including prolonged culture periods, is

preferable over empirical, nonspecific methods. Revised therapeutic guidelines for HS should incorporate the latest insights into bacterial antibiotic resistance.

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Abstract N°: 2060

Follicloid : an in vitro model of hidradenitis suppurativa to study the early stages of keratinization

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic disabling inflammatory skin disease, which affects 1 to 4% of the general population, especially young women. Localized in the main skin folds, it is characterized by painful cysts and abscesses, and even scars and sinus tracts. Due to treatment response and phenotype heterogeneity, the only cure is a complete removal of affected skin.

While research in humans makes breakthroughs and allows a better understanding of this sickness, it is highly limited due phenotypic heterogeneity, impossibility to have samples at every stages and ethics. That is why it is imperative to create alternative methods to overcome these inconveniences. We conceived a NCSTN-KO mouse model (Krox20Cre/+ Ncstnfl/fl Rosa26tom/tom) in which Ncstn is deleted in a subpopulation of HF-SCs. NCSTN-KO mice show severe skin disorganization, including an increased hair follicles density, cyst formation and epidermal hyperkeratinization, the latter two being the hallmark of HS. Unexpectedly, we observed that follicular abnormalities appeared as early as 9 days of age, with infiltration of neutrophils and macrophages. To study the early phases of this process, we created a three-dimension *in vitro* model : follicloid.

Materials & Methods:

We produced an *in vitro* model, called follicloid, inspired by Kageyama's publication (Science Advances 2022). The dorsal skin from E18 mouse embryos is used to isolate epithelial and mesenchymal cells which are seeded in a two-step Matrigel culture. We observed day-to-day hair follicle (HF) development and performed immunofluorescence.

Results:

We processed epithelial and mesenchymal cells from controls and NCSTN-KO embryos to generate HF structures. Clear differences in HF structures are observed between WT controls and NCSTN-KO cells. The number and the length of HFs per organoid are significantly higher in NCSTN-KO organoid compared to WT organoid suggesting altered HF homeostasis, when Ncstn is deleted in KROX20+ HF-SCs.

We observed KROX20+TOM+ cells obtained from KROX20Cre/+ Rosa26tom* control mice are localized around the HF. Then we studied the phenotype of KROX20+TOM+ cells and observed that some of them expressed CD34. Moreover, CD45 expressing cells are observed in mesenchymal cells.

Conclusion:

We have developed an *in vitro* HF model to study the early stages of HF development and the impact of NCSTN in HF-SCs. The initial results indicated a number increase of HFs with longer lengths, which is suggestive of a state of HF-SC activation.

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Abstract N°: 2081

serum level of osteopontin and melanocortin receptor in patients with acne vulgaris versus healthy subjects

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Introduction & Objectives:

Acne vulgaris is a chronic disease with numerous cosmetic,psychological and spiritual problems leading to the decreased quality of life among affected people.Melanocortin is a hormone affects apoptosis and sebum secretion and have role on comedone stage of acne.Also osteopontin as a glycoprotein regulate cytokine production in acne.Hence this study was performed to determine the serum level osteopontin and melanocortin receptor in patients with acne vulgaris in comparison with healthy subjects.

Materials & Methods:

Current study is a case-control assessment performed with sampling of 102 subjects including 51 known cases of acne and 51 healthy subjects(wiyhout acne as controls).serum osteopontin and melanocortin receptor-1 level was assessed and compared across two groups.

Results:

Both groups were matched for age,gender,location of acne and severity of acne.(pvalue>0.05).The mean melanocortin receptor-1 was significantly higher in case group(pvalue:0.002) but osteopontin serum level does not have significant difference between groups.(pvalue:0.008)

Conclusion:

Totally,according to the obtained results in this study,it may be concluded that melanocortin receptor-1 play a role in acne pathogenesis.Hence osteopontin serum level does not have any role.however,this matter may be confirmed by future studies.

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Abstract N°: 2213

Fast and visible efficacy of a salicylic acid-based dermocosmetic cream in mild to moderate adult female acne subjects with fair skin phototypes: results from an exploratory split-face study

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Introduction & Objectives:

Acne vulgaris is one of the most common chronic inflammatory skin diseases worldwide. Dermocosmetics have been proven to be beneficial in acne management. However, few studies have investigated their kinetics of efficacy. This study assessed the efficacy kinetics of a dermocosmetic cream (DC) containing salicylic acid, LHA, niacinamide, Aqua Posae Filiformis, and thermal spring water in subjects with acne.

Materials & Methods:

16 adult subjects (14 women, 2 men; mean age 29.4±7.7 years; phototypes II and III) with mild to moderate acne participated in a randomized, intra-individual study for 15 days. Hemi-faces randomly received DC or remained untreated for 15 days. Assessments at baseline, every day from baseline (D1) to Day 6, as well as at Day 8, 11 and 15 included inflammatory, non-inflammatory and total lesion count, acne severity, and local tolerance evaluated by the investigator (erythema, dryness, desquamation) and the patient (itching, tingling, burning sensations) at the end of the study; subjects rated the benefit of the DC at Day 15.

Efficacy was also evaluated by using a standardized multi modalities full face imaging and a mobile and connected imaging system, every two days and at each visit, respectively.

Results:

The inflammatory lesion count significantly decreased with DC at Day 8 ($p<0.05$) and Day 15 ($p<0.01$); a significant decrease of the non-inflammatory lesion count was also observed at Day 15 ($p<0.01$). The total lesion count had significantly decreased with DC at Day 8 ($p<0.05$) and at Day 15 ($p<0.01$).

Between-side differences were significant (all $p\leq0.05$) for all lesion types at D15. Dermatologists and subjects assessed local tolerance as good, with no clinical signs and symptoms reported in a large majority of subjects.

Most subjects considered that skin appearance and visibility of acne lesions had improved.

Conclusion:

This study investigates the visual kinetics of efficacy of DC, using standardized imaging acquisition systems. The tested DC reduces acne lesions and severity as assessed by dermatologist, as well as skin appearance and acne lesion visibility according to the subjects, while being well tolerated as early as after 15 days.

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Abstract N°: 2214

Clinical benefit of an ultra-concentrated tri-acid complex dermocosmetic serum in adult subjects with mild to moderate acne across all skin phototypes

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Introduction & Objectives:

Adult acne is increasingly reported in dermatology practice, especially in women, with a significant impact on quality of life and self-esteem. The role of dermocosmetics (DC) is increasingly recognized for management of adult acne but data and across all phototypes are lacking.

This study assessed the benefit of an ultra-concentrated tri-acid complex serum (DC serum) containing glycolic acid, salicylic acid, capryloyl salicylic acid/LHA, combined with soothing ingredients in adult acne of any phototype.

Materials & Methods:

In an open-label, multicentre study, 87 adult subjects of any phototype with a mean age of 25±1 years, including 69 women, with mild to moderate acne (GEA 2-3) were recruited. DC serum was applied twice daily on the face for 3 months, together with daily photoprotection. Evaluations included GEA and AFAST B (mandibular acne, women only) scoring, inflammatory, non-inflammatory and total lesion counts as well as acne burden (AI-ADL) and stigmatization (PUSH-D) and subjects satisfaction at baseline, D28, D56 and D84.

Efficacy was also evaluated using a standardized multi modalities full face imaging and a mobile and connected imaging system.

Results:

At D84, 30% of the subjects had clear or almost clear GEA, 51% had an improvement of at least 1 grade, 90% of subjects had AFAST-B clear or almost clear and 39% had improvement of at least 1 grade. All lesion counts significantly ($p<0.0001$) decreased as early as D14 with a significant and continuous decrease until D84 (inflammatory: -49%, non-inflammatory -53% and total lesions: -52%).

Acne burden significantly ($p<0.0001$) improved on average by 33% and changed in 75% of subjects from severe to moderate; acne stigmatization was significantly ($p<0.0001$) reduced in 75% of subjects and on average by 38% at D84 ($p<0.0001$).

Erythema significantly decreased by 43% on average at D84. No desquamation, itching and stinging were observed for more than 95% by dermatologist assessment at D84. Subjects were highly satisfied with DC serum which was very well tolerated.

Conclusion:

DC serum is beneficial in management of mild to moderate adult acne across all phototypes, as soon as 14 days of twice-daily use, providing continued improvement to 84 days.

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Abstract N°: 2215

A dermocosmetic routine as an adjunctive to topical and/or oral acne drug to mitigate local irritations: Results of an international observational study

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Introduction & Objectives:

Acne is a common chronic skin condition. Current treatments may cause local side effects (e.g., erythema, dryness, sensations of stinging and burning) that may reduce treatment adherence and ultimately efficacy. Dermocosmetics may be a beneficial adjunct to reduce local irritations induced by acne treatments.

This study assessed the benefit of a dermocosmetic routine (DC), consisting of a washing gel and a cream containing Bixa Orellana seed extract, niacinamide, mannose, and APF in mitigating local irritations of topical or oral acne treatments.

Materials & Methods:

A 3-month observational study was conducted in 7 countries on patients above 12 years of age with acne (GEA grade 1 to 5) receiving topical and/or oral acne treatment. Skin sensitivity was assessed by the investigator (erythema, desquamation, dryness) and by the patient (seborrhea, itching, tingling, burning) who also assessed the quality-of-life (QOL) using CADI at baseline and after 3 months.

Results:

A total of 2061 evaluable subjects of any phototype were considered for the efficacy analysis (mean age 22.2±7.6 years, mean acne duration: 3.3±4.1 years). Patients mainly had facial acne on the cheeks (72.2%) and T-zone (62.3%), 22.5% had truncal acne. 43.0% received oral isotretinoin, 26.2% local treatments, 14.9% local and systemic treatments and 8.2% oral treatments excluding isotretinoin. After 3 months, DC significantly ($p<0.001$) improved erythema in 72.1%, desquamation in 74.7% , dryness in 69.7% , itching in 82.5% and burning in 83.5% of the patients. The CADI total score was reduced by 60.3% (from an average score of 6.39 to 2.54) The mean seborrhea score decreased by 55.7%. Tolerance of the DC regimen was rated high to excellent for 96.4% of dermatologists and for 95.1% of patients. 95.8% of patients were highly satisfied and 93.2% preferred the DC compared to their previous skin care. More than 96% of the patients declared that the cream and the cleanser increased their tolerance to treatment.

Conclusion:

DC is a beneficial adjunct to topical and/or oral acne treatments by improving local irritations and the patient's quality of life.

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Abstract N°: 2274

Mask-Acne Prevalence and Risk Factors during the COVID-19 Pandemic: A Cross-Sectional Single Institution Study

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Introduction & Objectives:

Mask usage in healthcare workers became a requirement in all hospitals after the COVID-19 pandemic. Dermatologists have increasingly been diagnosing facial skin reactions that were attributed to or exacerbated by increased mask usage. "Mask-acne," which is defined as a new onset or exacerbation of acne localized to the facial area under the mask, has been increasingly reported in the general population and healthcare workers during the COVID-19 pandemic. The purpose of this study is to assess the prevalence, severity, and risk factors contributing to mask-acne development among healthcare workers (HCW) at a tertiary care center in Lebanon.

Materials & Methods:

A cross-sectional observational study, conducted through a web-based questionnaire that was fllled anonymously, and collected over a 6-month period (December 2021 and June 2022). Validated acne severity scale was used through a visual guide to assess the severity of mask-acne. All statistical analyses were conducted using the SPSS version 28.0 software.

Results:

The total number of responders was 201, most responders were physicians (62.7%), and the surgical mask was the most used type of mask (62.1%) [Table 1 & 2 summarises the patients demographics and mask wearing behaviors of participants]. Results showed that 40.2% of healthcare workers developed mask-acne with 62.9% of them having new onset mask-acne and 37.1% having an exacerbation of preexisting acne. Prior to the COVID-19 pandemic, 86 participants

(42.7%) reported mask usage at work. Adverse effects such as erythema, itching, or rash

behind the ear were reported in only 3.4% of the participants. After the COVID-19 pandemic, most cases (90.1%) with new onset mask-acne were reported to be mild according to the acne severity scale, and none of the participants reported severe acne. Bivariate analysis showed that female gender, age <30 years, having oily skin, and wearing makeup under the mask were significant risk factors for mask-acne development (Table 3). However, on multivariate analysis, Age <30 years, female gender, and prolonged mask usage >8 hours were the only significant associations with mask-acne development (Table 4).

Conclusion:

Mask-acne prevalence increased among HCWs post-COVID-19 pandemic in comparison to pre-pandemic era at our institution in Lebanon (40.2% vs. 3.0%). Moreover, the study highlights the high occurrence of new onset mask-acne, reaching 62.9% with most cases being mild in severity. Younger age (<30years), female gender, and prolonged mask usage (>8hours) were significant risk factors for mask-acne development. Further studies are necessary to validate our results and provide a more comprehensive understanding of mask-acne among HCWs.

Table 1: Demographic data pertaining to the sample of participants ($n = 201$).

Gender	N (percentage)
Male	76 (37.9%)
Female	125 (62.1%)
Age	
<30 years	135 (67.1%)
>30 years	66 (32.9%)
Occupation	
Physician	126 (62.7%)
Nurse	48 (23.9%)
Pharmacist	7 (3.5%)
Administrative staff	20 (9.9%)
Prior history of chronic illness	
Yes	170 (84.6%)
No	31 (15.4%)
Skin type	
Oily or mixed skin	122 (60.7%)
Non-oily skin	79 (39.3%)

Table 2: Summary of mask wearing behavior among 201 healthcare workers and staff at a tertiary care center.

Mask type	Frequency (%)
Surgical mask	125 (62.1%)
KN95	60 (29.9%)
N95	14 (7.0%)
Cotton mask	2 (1.0%)
Number of hours of mask wearing per day	
<8 hours	103 (51.2%)
>8 hours	98 (48.8%)
Number of days of mask wearing per week	
1-2 days	4 (2.0%)
3-4 days	21 (10.4%)
5–7 days	176 (87.6%)
Same mask usage for longer than 1 day	
Yes	78 (38.8%)
No	123 (61.2%)
Taking regular breaks from mask wearing at work	
Yes	161 (80.0%)
No	40 (20.0%)
Makeup use underneath the mask	
Yes	57 (28.4%)
No	144 (71.6%)

Table 3: Summary of the results of the bivariate analysis cross-tabulating presence of mask-induced acne with multiple variables.

		Mask-acne present	No mask-acne	P value
Gender	Male	14 (17.3%)	62 (51.6%)	<0.001
	Female	67 (82.7%)	58 (48.4%)	
Age	<30 years	63 (77.7%)	72 (60.0%)	0.009
	>30 years	18 (22.3%)	48 (40.0%)	
Skin type	Oily or mixed	57 (70.3%)	65 (54.2%)	0.027
	Non-oily	24 (29.7%)	55 (45.8%)	
Mask type	N95	7 (8.6%)	7 (5.8%)	0.187
	KN95	28 (34.6%)	32 (26.7%)	
	Surgical mask	44 (54.3%)	81 (67.5%)	
	Cotton mask	2 (2.5%)	0	
Days mask used per week	1-2 days	1 (1.2%)	3 (2.5%)	0.344
	3-4 days	11 (13.6%)	10 (8.3%)	
	5–7 days	69 (85.2%)	107 (89.2%)	
Duration of mask	<8 hours	31 (38.3%)	72 (60.0%)	0.003
	>8 hours	50 (61.7%)	48 (40.0%)	
Makeup under mask	Yes	32 (39.5%)	25 (20.8%)	0.004
	No	49 (60.5%)	95 (79.2%)	

Table 4: Multivariate regressions model with adjusted OR for mask-induced acne.

Factors	Adjusted OR (95% CI)	*P* value
Female gender	5.40 (2.39–12.17)	<0.001
Age <30	2.82 (1.36–5.84)	0.005
Mask >8 hours/day	2.15 (1.13–4.10)	0.019
Using makeup under the mask	1.15 (0.54–2.45)	0.704
Having oily skin	1.44 (0.73–2.85)	0.285

OR, odds ratio.

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Abstract N°: 2298

The multimodal management of hidradenitis suppurativa with secukinumab, intralesional corticosteroids, and carbon dioxide laser excision. A case report

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Introduction & Objectives:

Hidradenitis suppurativa/acne inversa (HS) is a persistent, inflammatory, and debilitating skin condition affecting young patients, in areas with apocrine glands (predominantly the axillae, inguinal, and anogenital regions). It is multifactorial, with the occlusion, dilation, and rupture of the pilosebaceous units, in the context of aberrant cytokine responses and an abnormal microbiota in genetically predisposed individuals. The management is challenging, especially in the case of severe stages of disease, requiring a multimodal approach with immunotherapy (biologic therapies, vaccines), systemic retinoids, antibiotherapy, surgical or laser interventions (deroofing, wide excision), and others.

Results:

We report the case of a 36 years old male patient, known with a 4 years history of HA in the gluteal region, without a significant family history or associated comorbidities, who presented to our department with a disseminated eruption of painful inflammatory papules and nodules, fluctuant pseudocysts, abscesses with chronic discharge, draining sinuses, hypertrophic and atrophic scars, affecting both axillae, abdomen, inguinal region, inner thighs, and buttocks.

Laboratory investigations revealed microcytic, hypochromic anemia, leucocytosis, thrombocytosis, and biologic inflammatory syndrome. Bacteriologic swabs were negative. By ultrasound, there was observed a thickened dermis, widened hair follicles, retained hair tracts, hypoechoic fluid pockets with irregular borders, interconnected sinus tracts, and decreased echogenicity of surrounding tissue. Thus, the patient's disease was classified as Hurley Stage III, with diffuse involvement, multiple interconnected tracts, and abscesses. Multiple therapeutic approaches with oral antibiotics, retinoids, local antibiotics, antiseptics and/or corticosteroids (creams, intralesional infiltrations with triamcinolone acetonide), deroofing surgical interventions failed to deliver persistent improvement, with worsening of HA lesions after stopping previously mentioned therapies. In this context, we decided to initiate anti-IL-17 therapy with secukinumab, with an approved compasionate program in HS, 300 mg at weeks 0,1,2,3,4 and then monthly. The pain numerical ratings improved after 6 months. WP-NRS value dropped from 10 to 7. Initial IHS4 was 24, dropping to 16 after 6 months. The next period follow-up 300 mg every 2 weeks and to perform periodic irrigations with antimicrobials, intralesional infiltrations with triamcinolone acetonide, and carbon dioxide (CO_2) laser excision of the sinus tracts with second-intention healing. Since CO_2 laser has hemostatic properties, it allowed an accurate assessment of the lesions and a complete removal of the pathologic tissues.

Conclusion:

The choice of treatment for HS depends on factors such as disease severity, its course, and patient preferences. It

is essential to address the disease at an early stage, as delaying treatment could lead to uncontrolled disease activity, necessitating complex therapeutic approaches. Various lasers and light-based treatments have been attempted individually for HS in the past, but using these alone has been associated with recurrences. Gaining accurate insights into the severity and subclinical features of specific HS lesions, allowed us to tailor the multimodal management with secukinumab, intralesional corticosteroids, and CO2 laser excision with excellent results in a young patient with lesions refractory to standard treatment.

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Abstract N°: 2311

Comparative Analysis of Treatment Outcomes: 1064nm Q-Switched ND: YAG Laser versus Microneedling Method for Acne Scar Management

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Introduction & Objectives:

Acne scars, stemming from collagen irregularities in acne vulgaris patients, pose significant psychosocial challenges. Due to scar complexity and patient variability, treatment lacks standardized guidelines. Non-ablative lasers, like Q-switched Nd:YAG, offer scar healing without epidermal damage, while microneedling induces collagen deposition, presenting a simple and cost-effective solution. This study aims to compare the efficacy, and adverse effects of Q-switched Nd:YAG laser and microneedling treatments in acne scar management.

Materials & Methods:

A retrospective case-control study at Ege University Faculty of Medicine, Department of Dermatology and Venereology, examined 30 patients with moderate-to-severe atrophic acne scars on the face. Patients received either 1064 nm Q-Switched Nd:YAG laser or microneedling treatment over three monthly sessions from September 2020 to April 2022. Demographic data, treatment details, and photographs were collected from patient files. Scar sizes, qualitative and quantitative grading scales, patient and investigator ratings, Dermatologic Quality of Life Index (DLQI), pain intensity, and side effects were conducted before each session and at 1 and 4 months post-treatment. Statistical analysis was conducted using SPSS software, with significance set at $p < 0.05$.

Results:

Participants (43% female, 56.7% male; mean age: 22.34 years, range: 18-35; Fitzpatrick skin types II-IV) underwent treatment. Scar sizes decreased by 52.63% and 57.14% at 1 and 4 months post-laser, and 62.99% and 69.23% post-microneedling. Acne scar evaluations revealed reductions of 40.82% and 47.82% post-laser, and 41.06% and 45.42% post-microneedling. Scores on the Goodman and Baron Quantitative Acne Scar Rating Scale declined by 28.46% and 38.05% post-laser, and 27.18% and 34.38% post-microneedling.

Improvement rates for the laser group were 46.33% and 52.67% at 1 and 4 months post-treatment, respectively, and 50.67% and 55.67% for the microneedling group, as per the Investigator's Overall Assessment. Patient Healing Assessment showed 60% and 64% improvement in the laser group, and 54% and 60.7% in the microneedling group. DLQI demonstrated a substantial improvement of 58.28% in the laser group and 50% in the microneedling group at 4 months post-treatment. Although significant improvement was observed at 4 months compared to 1 month post-treatment, no significant difference was found between the two groups.

Microneedling induced modest and transient erythema. None of the patients had persistent postinflammatory hyperpigmentation, hypopigmentation, or infection.

Conclusion:

Both treatments led to noteworthy enhancements in scar diameters, scoring, physician and patient ratings, and patient quality of life at 1 and 4 months. Notable disparities between the 1st and 4th month assessments underscore ongoing collagen remodeling post-treatment and the importance of long-term monitoring. Both approaches yielded minimal adverse effects and downtime. This study underscores the efficacy and safety of both

the 1,064 nm Q-switched Nd:YAG laser and microneedling in acne scar treatment, highlighting the significant improvement in patients' quality of life with scar removal.

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Abstract N°: 2313

Educational level may influence disease onsent and progression in patients with hidradenitis suppurativa

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory disease of the pilosebaceous unit that significantly affects quality of life. There are a number of factors associated with the most severe forms, such as overweight, smoking and delayed diagnosis and treatment. The aim of this study is to explore the relationship between educational level and clinical features of the disease

Materials & Methods: cross-sectional study with sequential recruitment carried out in the HS Unit of the Hospital Universitario Virgen de las Nieves in Granada between 01st January 2017 and 1st January 2024. Sociodemographic and clinical variables were collected. Stratified analysis was performed according to the level of education: compulsory education completed vs not completed. Education in Spain is compulsory and free for all children aged between 6 and 16 years and is supported by the national government. The Spanish healthcare system establishes universal coverage by determining that public healthcare will be extended to the entire population.

Results: 461 patients were included, with a similar proportion of women (49.5%) and men (50.5%). The mean age was 41.34 (SD 14.24) years. Sixty-five per cent of the patients have completed compulsory education and they showed some statistically significant differences from patients who had not completed it. These patients were more frequently female (56%) and employed (86.7%). They also were younger (38.5 SD 0.8 years), had less smoking (53.3%), earlier disease onset (22 SD 0.7 years), milder Hurley stages (86.3% Hurley I-II) and a lower proportion of tunnels (1.1 SD 0.1). No differences were observed in disease duration, IHS4 score and previous treatments.

Conclusion: The relationship between educational level, socioeconomic status, the presence of behaviors, healthy habits, the relationship with the healthcare system, absenteeism, and therapeutic compliance is complex. Regardless of the causal mechanisms, the results of our study suggest that in the presence of an equitable and universal healthcare system and a similar disease progression time, patients who have not completed compulsory education appear to have a more advanced disease from a structural point of view. Educational level can serve as a marker to identify patients at risk of progression who could benefit from health education measures, social support, and medical-surgical treatment. It is also striking that in this group of patients, the onset is later, which could indicate that it occurs as a consequence of the accumulation of external factors such as smoking and other risky behaviors.

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Abstract N°: 2389

Arterial stiffness, microvascular disfunction biomarkers and correlation with disease severity in a cohort of hidradenitis suppurativa patients: a cross-sectional study

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Introduction & Objectives:

Hidradenitis Suppurativa (HS), due to the systemic inflammatory involvement, seems to be associated with greater cardiovascular risk (CVR). Hemodynamic parameters such as arterial stiffness and microvascular disfunction are linked to cardiovascular impairment. The aim of this study was to evaluate CVR biomarkers regarding arterial stiffness and microvascular disfunction in a cohort of HS patients, and to explore the potential impact of disease severity and clinical characteristics on CVR measurements.

Materials & Methods:

A cross-sectional study was performed including patients with severe HS who were candidates to biologic therapy, before the start of the treatment. Arterial stiffness and microvascular disfunction were measured by means of Pulse-Wave Velocity (PWV) and augmentation index (AIx@75) respectively. Clinical, severity and socio-demographic variables were collected.

Results:

A total of 84 patients were included, with a mean age of 42.7 years and 64% of men. Mean Body Mass Index was 29kg/m2, and 68% were smokers. Mean IHS4 score was 21, with 37% of the patients being classified as Hurley III. PWV, indicating arterial stiffness, was associated with classical CVR factors such as age, tobacco consumption and BMI ($p<0.05$), but also with increasing Hurley stages ($p<0.01$). AIx@75, indicating microvascular disfunction, was associated with increased IHS4 scores and increasing Hurley stages ($p<0.05$).

Conclusion:

HS involves systemic inflammation which could eventually lead to vascular damage. According to the results of the present study, structural damage in HS patients (Hurley stage) seems to be associated with arterial stiffness, therefore being linked to greater CVR. Moreover, microsvascular disfunction seems to correlate with greater disease severity (IHS4) as well as structural skin damage (Hurley stage). Monitoring severe HS patients in terms of CVR would be advisable, as well as prompt treatment to avoid structural damage and higher inflammatory load.

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Abstract N°: 2393

Factors associated with improvement of systemic inflammation indexes after biologic therapy in patients with severe hidradenitis suppurativa: a prospective cohort study

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) is associated with a greater systemic inflammation (SI). Systemic Immune Inflammation Index (SIII) has been proved to be an accurate marker of SI, and to be associated with worse outcomes in a variety of diseases. Some biologic drugs are used to effectively control HS disease signs and symptoms. However, no study has been performed to date regarding the evolution of SIII during biological therapy. The aim of this study was to assess the potential change of SIII in HS patients under biologic therapy.

Materials & Methods:

A prospective cohort study was performed. Patients with severe HS who started biologic therapy were consecutively recruited and assessed before treatment and after 8 months. Socio-demographic (including age, sex, tobacco consumption and Body Mass Index -BMI-) and clinical (International Hidradenitis Suppurativa Severity Score System -IHS4- and Hurley stage) variables were collected, as well as SIII (neutrophils*platelets/lymphocytes).

Results:

Thirty-seven patients (68% men) with severe HS were included. Mean age was 45 years old and mean basal IHS4 score was 18,37 with 14% of the patients being Hurley stage I, 48% Hurley II and 38% Hurley III. Biologic therapy included adalimumab (78% of patients), secukinumab (14%) and bimekizumab (8%). Basal SIII significantly decreased after biologic therapy (856 to 106) ($p<0.001$). Greater SIII reduction was associated with higher cumulative tobacco consumption (packages-years), higher basal IHS4 scores and structural damage (greater Hurley stage) ($p<0.01$), whereas higher BMI was related to a lesser SIII reduction. There were no differences between treatments in terms of SIII improvement ($p>0.20$).

Conclusion:

Biologic therapies seem to improve SI in patients with severe HS. Those patients with greater tobacco consumption, and those with more severe disease have more benefit from therapy in terms of systemic inflammation, whereas obese patients may not significantly benefit. Further studies would be of interest to explore the impact of SI improvement in terms of prognosis, cardiovascular risk and quality of life.

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Abstract N°: 2402

First case report of a lymphomatoid papulosis developed after treatement with secukinumab in a patient with severe hidradenitis suppurativa.

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Introduction & Objectives:

We present a case of a 55-year-old female patient with a 35-year history of Hidradenitis suppurativa (HS), a chronic skin disease characterized by perifollicular inflammation, abscesses, and fistulas. Additionally, the patient has a medical history of depression, Hashimoto's thyroiditis, sleep apnea, and hypertension. After three months of ineffective treatment for HS with clindamycin and a positive response to adalimumab the patient discontinued the treatment. Upon reintroduction we switched to the anti-IL-17 monoclonal antibody secukinumab. After a well-tolerated first injection, the patient developed multiple papulo-nodular, partially ulcerated skin lesions on the third day after the second administration.

Materials & Methods:

The diagnosis of lymphomatoid papulosis (LP) was confirmed through multiple skin biopsies with a lymphocytic infiltrate including CD30-positive cells. Although the skin lesions partially regressed under corticoid pulse therapy with prednisolone, starting at 50mg for the first 2 days and tapering over the next 22 days, they did not completely heal and showed a waxing and waning phenomenon. After a third application of secukinumab, the LP worsened again and new lesions appeared.

Results:

As the papulonodular lesions were clinically difficult to differentiate from the HS nodules, we performed a second biopsy from two different sites which confirmed CD30-positive cells from the first site and skin with scarring and cystic, squamous epithelial-lined duct structures located in the dermis, typical for HS from the second one.

Conclusion:

These findings strongly suggest a rare case of concomitant HS and LP, with the latter most likely triggered by IL-17A blockade.

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Abstract N°: 2460

Evaluation of the tolerance of an acne dedicated sunscreen in subjects from Japanese ancestry with acne prone skin

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Introduction & Objectives:

Sun exposure is not recommended in subjects with acne in order to prevent acne delayed worsening and post inflammatory hyperpigmentation. This is particularly true for the latter in subjects of Asian ancestry. Non comedogenic sunscreens that properly cover UVAs, and are compatible with acne prone skin, with a good tolerance and without increasing skin oiliness are need in such populations. This study evaluated the local tolerance and the effect on sebum secretion and skin hydration of a non-comedogenic UVB-UVA sunscreen in subjects of Japanese ancestry with acne prone skin.

Materials & Methods:

A 4-week open label study was conducted in Sao Paulo, Brazil, from April to June 2023. 53 adult subjects with a Japanese ancestry, aged 18 to 60 years were evaluated. Subjects had to have oily acne prone skin with a sebum index above than 120 mg/cm2 at screening in the T-zone of the face. A sunscreen with a good UVA filtration and with ingredients that control skin oiliness was applied under normal conditions of use on clean and dry skin of the face, before using make up. Evaluations at D0 and D28 included self-perceived local tolerance and efficacy questionnaires, skin oiliness measurements on the forehead, and hydration on the cheeks using instrumental means.

Results:

68% women of the subjects were women and the age was 37 years. The mean sebum value at baseline was 168µg/cm2. 54,7% of the subjects did not use any sunscreen before the study Compliance was high (90%). According to the subjects' self-perception, 98% of participants had no irritation and reported reduced shininess, pore size and an improved skin tone. Hydration levels and oiliness were maintained during the study (hydration level: 52.7 a.u. vs. 52.7 a.u., sebum level: 93.6 µg/cm^2 vs. 96.5µg/cm^2). 86.8% of the subjects stated to keep using the evaluated sunscreen.

Conclusion:

This study showed in subjects with Japanese ancestry and with oily acne prone skin, the excellent the excellent tolerability of a dedicated sunscreen providing an UVA coverage required in acne. The sunscreen maintains hydration and does not worsen oiliness. It provides high cosmetic satisfaction and allows for an appropriate compliance.

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Abstract N°: 2461

Evaluation of the tolerance of an acne dedicated sunscreen in patients from Asian ancestry with mild to moderate acne receining potentially irritant topical treatments

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Introduction & Objectives:

Sun exposure may generate delayed worsening of acne. It also enhances post inflammatory hyperpigmentation (PIHP), especially in patients of Asian ancestry. Therefore, sunscreens that properly cover UVAs in acne are needed to optimally prevent PIHP and flares. Such products must have an appropriate local tolerance pofile, especially if used together with topical treatments that generate irritation such as topical retinoids and/or BPO. This study evaluated the local tolerance of a non-comedogenic broad spectrum UVB-UVA sunscreen in patients of Asian ancestry with mild to moderate acne receiving topical adapalene and/or BPO.

Materials & Methods:

A 4-week open label study was conducted in Sao Paulo, Brazil from July to November 2023. 59 subjects, aged from 16 to 70 years, with a phototypes I to IV and being from Asian ancestry were included. Patients had to have mild to moderate acne (GEA 2 or 3) and were to be treated topically with BPO and/or adapalene for at least 2 weeks prior to the study start and during the study. The to-be-tested sunscreen was applied under normal use conditions on clean and dry skin on the face, before applying make-up. Reapplication during the day was possible, if necessary. Evaluations were conducted at D0, D7, D14, D21 and D28 and included local tolerance (0 to 7 four-dimension scale on redness, scaling, dryness and stinging/burning), GEA scoring and using a self-perceived effectiveness.

Results:

63% were women, the mean age was 37 years. 95% of the patients were of Japanese ancestry, 93% had a GEA 2 and 93% received topical adapalene. Compliance was high (100%). No tolerance issue was reported with the tested sunscreen. Moreover, local tolerance signs associated with the acne treatment had all improved during the study with a significant ($p<0.05$) change for erythema as soon as at D7, for burning and dryness at D21, and for scaling at D28. GEA significantly ($p<0.05$) improved from 2.07 at D0 to 1.81 at D28. 75% of the subjects' reported the absence of irritation and shininess, as well as improved softness, and evenness of the skin tone.

Conclusion:

This study confirms the excellent tolerability of a specific sunscreen in patients from Asian, mainly Japanese, ancestry with mild to moderate acne treated with adapalene and/or BPO. Treatment-related local irritation signs were improved making the tested non-comedogenic broad-spectrum UVA-UVB sunscreen a favorable adjuvant improving tpical acne treatment compliance.

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Abstract N°: 2514

In the Shadow of Syphilis: Navigating Therapeutic Complexities in Hidradenitis Suppurativa

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease affecting approximately 1% of the global population, characterized by painful nodules, abscesses, sinus fistulas, and scars. Despite therapeutic advancements, including surgical interventions and biological therapies such as Anti-TNF, therapeutic failures remain a challenge in HS management. This study aims to present a case report highlighting the impact of concomitant infections, specifically latent syphilis superinfection, on therapeutic outcomes in HS.

Materials & Methods:

A 41-year-old male diagnosed with Stage III Hurley Hidradenitis Suppurativa underwent multiple antimicrobial therapies, isotretinoin, and initiated anti-TNF biologic therapy 10 months prior. He experienced exacerbation of symptoms over the past 6 months, characterized by worsening inflammatory lesions necessitating surgical intervention. Postoperatively, the patient experienced suture dehiscence, prompting further diagnostic evaluation. Serological testing revealed latent syphilis infection, confirmed by a reactive RPR of 208 and positive VDRL for four dilutions. Treatment with benzathine penicillin 2,400,000 units resulted in significant improvement of the hidradenitis suppurativa lesions.

Results:

Our findings underscore the necessity of a multidisciplinary approach in HS management, integrating dermatology, infectious disease, and surgical specialties. Early detection and treatment of concomitant infections are crucial for therapeutic success in HS. Failure to recognize and address such infections can lead to treatment failure and disease progression. In this case, prompt identification of syphilis infection and initiation of appropriate treatment led to significant improvement in the patient’s condition, highlighting the importance of vigilant surveillance and management of concomitant infections in HS patients. This underscores the importance of regular serological monitoring in HS patients receiving biological therapies to detect latent infections that could potentially impact treatment efficacy.

Conclusion:

This case study emphasizes the importance of considering concomitant infections, such as latent syphilis superinfection, in cases of HS therapeutic failure. A multidisciplinary approach, coupled with regular serological monitoring, is essential for optimizing therapeutic strategies and improving patient outcomes in HS management. Further research is warranted to elucidate the interplay between concomitant infections and therapeutic responses in HS. This study adds to the growing body of evidence highlighting the complexities of HS management and underscores the need for comprehensive, patient-centered care strategies.

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Abstract N°: 2525

Secukinumab treatment in patients with hidradenitis suppurativa in a real-world clinical settings: a multicenter study

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Introduction & Objectives:

Treatment of hidradenitis suppurativa (HS) remains a challenge in clinical practice for dermatologists. Although the efficacy and safety of secukinumab in the treatment of HS have been demonstrated in phase 3 studies, real-world data is limited. We conducted a retrospective multicenter study to evaluate the efficacy and safety of secukinumab treatment in HS patients in a real-world setting

Materials & Methods:

Adult patients who were diagnosed with HS and used secukinumab for at least 3 months were included in the study.

Results:

A total of 31 patients were included in the study. 14 of them (45.2%) were female. The mean age was 39.32 ± 10.26 years, the mean disease duration was 11.77 ± 7.99 years. 9 (29%) of the patients were bionaive and 10 (32.3%) were adalimumab naive. Disease severity was Hurley I in 7 patients (22.6%), Hurley II in 9 patients (29%), and Hurley III in 15 patients (48.4%). Hidradenitis Suppurativa Clinical Response (HiSCR) was achieved in 20 patients (64.5%). Secukinumab treatment was discontinued due to primary ineffectiveness in 10 (32.3%) patients, secondary ineffectiveness in 1 (3.2%) patient, adverse effects in 1 (3.2%) patient, and loss of follow-up in 1 (3.2%) patient. Paradoxical pyoderma gangrenosum was observed as an adverse

Conclusion:

The results of our study showed that secukinumab treatment in patients with HS is an effective and safe therapeutic option also in real-world clinical settings.

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Abstract N°: 2535

Vilobelimab demonstrates significant improvement in reduction of draining tunnels, total lesion count, International Hidradenitis Suppurativa Score 4 and the newly introduced modified-HiSCR: a post hoc analysis of the Phase IIb SHINE study

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Introduction & Objectives:

The purpose of this post-hoc analysis of the Phase IIb SHINE study was to explore additional efficacy endpoints. SHINE was a prospective, randomized, placebo-controlled, double-blind multicenter study in subjects with moderate to severe hidradenitis suppurativa (HS). Although the primary endpoint (HiSCR50) was not met due to a high placebo response rate, post-hoc analyses demonstrated a significant improvement in HS patients to vilobelimab in the highest dose treatment arm, 1200mg, using additional endpoints that account for reductions in draining tunnels.

Materials & Methods:

177 subjects were randomized into 5 treatment arms: vilobelimab (400mg Q4W, 800mg Q4W, 800mg Q2W, 1200mg Q2W) and placebo. Post-hoc analysis is performed for efficacy at week 16 assessing the percentage reduction of draining tunnels (dT), reduction of total lesion counts (abscesses + nodules + draining tunnels (ANdT)), and the International Hidradenitis Suppurativa Score 4 (IHS4) compared to placebo. Another newly introduced endpoint, the modified-HiSCR (m-HiSCR defined as at least 50% reduction of ANdT count with 50% reduction of dT count) were also evaluated as part of this post-hoc analysis for the patient population having at least one dT at baseline.

Results:

At week 16, Vilobelimab 1200mg Q2W showed a significant reduction of dT, ANdT and IHS4 (-63.16 %, -50.41 %, -51.45 % respectively) versus placebo (17.98%, -25.34%, -19.83% respectively). The percentage of responders with the newly introduced endpoint, m-HiSCR, in patient with at least one dT at baseline was 54.5% for vilobelimab 1200 mg Q2W compared to 26.2% for placebo.

Conclusion:

Draining Tunnels are indicative of severe, chronic inflammatory disease, while abscesses and nodules are acute inflammatory lesions which usually fluctuate. Based on vilobelimab's mode of action in blocking C5a, vilobelimab showed reduction of the counts of all three inflammatory lesions with a significant impact on dT reduction detected, which are the lesions with the highest impact on key signs and symptoms of HS. The HiSCR50 does not count the reduction in dT, but only considers no increase in dT relative to baseline. The m-HiSCR covers the effect on all 3 lesions with an emphasis on the reduction of dT which greatly impacts HS patients' quality of life . 1200mg

Q2W vilobelimab showed a significant reduction of dT and ANdT counts as well as improvement in IHS4 score compared to placebo. The efficacy of Vilobelimab 1200mg Q2W in HS is also reflected in the high responder rate measured by the m-HiSCR. The observed results suggest that vilobelimab treatment may lead to significant benefit to patients suffering from moderate to severe HS disease and that a dose at or higher than 1200mg Q2W may be required for future studies. The m-HiSCR is suggested as a new tool to be considered when examining the effectiveness of therapeutic intervention for patients with draining tunnels. Additional research will be required to validate this tool.

Abstract N°: 2606

"Unleasing the Power Duo": Conquering Acne Keloidalis Nuchae with combined Carbon- dioxide Ablation and Triamcinolone Acetonide in One Sitting.

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Abstract Title- "Unleasing the Power Duo": Conquering Acne Keloidalis Nuchae with combined Carbon-dioxide Ablation and Triamcinolone Acetonide in One Sitting.

Introduction & Objectives:

Acne keloidalis nuchae (AKN) is a chronic inflammatory condition affecting the occipital area or nape characterized by fibrotic papules, firm pustules, and nodules that coalesce into keloid-like mass or plaque. If left untreated in the early stages of the disease, it tends to become refractory to conventional methods like topical, intralesional steroids with antibiotics or retinoids. As a result, surgical interventions remain the only viable option in such cases. Various surgical modalities including surgical excision with primary or secondary closure, split-thickness skin grafts, and laser-assisted treatments have been tried. However, most surgical methods have longer downtime with a higher chance of relapse.

Materials & Methods:

The aim was to** study the investigate the results a previously untried combined treatment option of carbon-dioxide (CO2) laser ablation followed by intralesional triamcinolone injection in the same sitting. 6 patients with AKN who were resistant to medical management were enrolled in the study. The procedure involved using focused continuous ablative mode with the CO2 laser, repeatedly in circular motion over the thick papules of AKN followed by injection triamcinolone acetonide 40 mg/ml injected at the base of each lesion.

Total 3 sessions of CO2 laser ablation and intralesional triamcinolone acetonide were done at intervals of 8 weeks.

Results:

The combination of** Carbon-dioxide laser ablation and intralesional triamcinolone in the same sitting has shown promise as an effective treatment option in AKN particularly in cases involving** large plaques and keloidal nodules. While these procedures are commonly performed individually most dermatosurgeons combining them in the same sitting represents a novel approach that has led to optimized results in our study

Notably, our patients experienced resolution of plaques and nodules with good cosmetic appearance, no relapse and minimal downtime, making this simple outpatient procedure a viable treatment option for AKN.

Conclusion:

Co2 laser ablation combined with intralesional triamcinolone can be an effective treatment option in AKN.Both these procedures are carried out by most dermatosurgeons individually but combining them in the same sitting is a novel approach that has helped us optimize the results. Resolution of plaques and nodules with good cosmetic appearance, no relapse, and almost no downtime was seen in our patients with this simple outpatient procedure

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Abstract N°: 2689

Uptake of Secukinumab in Hidradenitis Suppurativa

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Introduction & Objectives: Hidradenitis suppurativa (HS), or acne inversa, is a chronic inflammatory condition that presents as painful and recurrent abscesses that progress to sinus tracts and scarring in the intertriginous locations of the body causing low quality of life in most patients. Treatment includes topical and systemic antibiotics, corticosteroids, hormonal therapies, immunomodulators, and surgical modalities. Moderate to severe HS is often treated with a variety of these treatments in addition to biologic options (adalimumab and secukinumab). This research sought to understand US dermatologists' uptake and perceptions of the launch of secukinumab in HS.

Materials & Methods: An independent market analytics firm collaborated with US dermatologists (n=74) to conduct the analysis of secukinumab's US launch in HS. Data were collected via an online survey fielding from February 6 to February 9, 2024, including physician demographics, product usage, and attitudinal survey responses. Qualitative interviews were also conducted (n=8) with respondents from February 15 to February 23, 2024.

Results: At approximately three months post-launch, most** US dermatologists are aware of secukinumab's HS approval, with 80% reporting high familiarity. Efficacy is the top initiation driver specifically reporting the flare reduction, durability, and the ability to decrease abscess and inflammatory nodule count. Efficacy is followed by patient severity, experience with secukinumab in psoriatic disease, and safety. Despite being the first IL-17 inhibitor, mechanism of action is selected by 5% of dermatologists. Conversely, out-of-pocket costs and access issues are the top two barriers to use, followed by patient reluctance. Dermatologists report patient reluctance is a result of safety concerns explicitly immunosuppression and increased risk of infection. Patients lack of interest in systemic therapies and needle phobia are also reasons patients are reluctant.

Among currently prescribed patients, 40% are categorized as moderate (Hurley stage 2) and 58% are severe (Hurley stage 3). Although 52% of current patients were switched from Humira, 46% were biologic naïve prior to initiation. Further, the most recently initiated secukinumab patients are adults, between the ages 35 to 49, female, with comorbid obesity. Patients are predominately white, however, 46% are patients of color from various ethnicities. Nearly two-thirds of secukinumab patients are on concomitant therapy, namely topical antibiotics. The majority of secukinumab patients' response will be evaluated between four months to a year or greater; few are going to be evaluated sooner.

When analyzing secukinumab and adalimumab on their perceived performance on efficacy and safety attributes, a greater percentage of dermatologists report secukinumab performs better on most inquired metrics, including rapidity, durability, and reduction in flares. Adalimumab outperforms secukinumab in terms of ease of access and cost. The two biologics are viewed similarly on patient education or support programs.

Conclusion: At approximately three months after becoming available, US dermatologists perceive secukinumab for HS positively, specifically in relation to adalimumab. These perceptions are likely a result of the large unmet need for new advanced systemic treatments. Data suggests near-term approvals could be viewed with similar positively.

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Abstract N°: 2724

Efficacy and Safety of Infliximab biosimilar in the treatment of moderate to severe Hidradenitis Suppurativa; An open label single group clinical Trial

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Introduction & Objectives:

Hidradenitis suppurativa is a chronic inflammatory disease with a high physical and psychological burden for patients due to scarring and unpredictable response to therapy. TNF alpha inhibitor, infliximab, has shown promising results in its treatment. However, no work has been done on this in our part of the world. Therefore, to assess the effectiveness and safety of infliximab in hidradenitis suppurativa, we conducted this trial in our population.

Materials & Methods:

It was an open label, single group clinical trial at Dermatology department of Services hospital Lahore. Patients of moderate to severe hidradenitis suppurativa were enrolled. Subcutaneous injections of Infliximab biosimilar 120mg were given weekly for first 4 weeks, then fortnightly for next 10 weeks, followed by monthly maintenance till 24 weeks. Primary outcome measures were achievement of HiSCR and 50% reduction in DLQI at week 14.

Results:

Out of total 36 patients, 19 were males while 17 were females (ratio 1.1:1). Age range of patients was 18 to 54 years (mean 31.33 ±7.094 years). Mean IHS4 before treatment was 18.64±17.831, which reduced to 5.44±5.945 at week 14. Mean DLQI before treatment was 20.83±5.634, which reduced to 6.42±4.101 at week 14. At the end of 14 weeks, 31 (86%) patients achieved HiSCR. Coexistent acne and folliculitis too responded well to infliximab therapy. Regarding safety, 28 patients (77.8%) had no side effects, 3 (8.3%) had transient fever relieved my medication, 3 (8.3%) had amenorrhea, 1 (2.8%) had menorrhagia managed with oral transamine and 1 patient (2.8%) developed Anti-nuclear antibodies and malar rash at 4 weeks at which treatment was stopped.

Conclusion:

It was evident from the trial results that subcutaneous Infliximab biosimilar is a very promising treatment in moderate to severe hidradenitis suppurativa with a good safety profile.

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Abstract N°: 2808

Therapeutic burden is associated with more severe and complex disease features in a cohort of 558 patients with Hidradenitis Suppurativa.

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Introduction & Objectives: Patients with hidradenitis suppurativa (HS) often undergo multiple medical and surgical treatments. The cumulative sum of medical and surgical treatment cycles has been defined as therapeutic burden (TB). Recent studies indicate that a higher TB may be associated with a poorer response to biological therapy in HS and could help determine the window of opportunity in HS treatment. Our aim is to describe basal TB among patients attending their first visit at a specialized HS clinic and identify factors potentially associated with a higher TB.

Materials & Methods: We identified all patients attending for the first time at an HS specialized clinic in Granada, Spain from January 2017 to January 2024. Sociodemographic and clinical data of these patients were collected from standardized electronic records used in the clinic, which were previously gathered through patient medical history and physical examination. Special attention was paid to the medical and surgical treatments received for HS prior to that visit to determine the TB.

Results: We identified 558 patients, with a female-to-male ratio of 283 to 273. The mean age was 41.91 ± 14.20 years, and the mean BMI was 29.66 kg/m^2. Among them, 58.24% (325/558) were smokers. The mean duration of the disease before the first visit to the specialized HS clinic was 17.51 ± 11.51 years. Hurley stage I was present in 37.28% (208/558) of the patients, while 46.42% (259/558) had Hurley stage II disease; the remaining patients presented with Hurley stage III. The mean IHS4 score was 8.47 ± 9.11. Biologic therapy had been administered to 15.41% (86/558) of the patients prior to their first visit to the HS specialized clinic, and 10.04% (56/558) had undergone surgical intervention (excluding incision and drainage) for HS at least once. The mean TB was 2.42 ± 2.25. Univariate analysis revealed that older age, longer disease duration, history of pilonidal sinus, involvement of inguinal and genital areas, higher number of draining tunnels, higher baseline IHS4 score, inflammatory or mixed phenotype versus follicular, and prior receipt of biological therapy for HS were associated with a higher TB. Additionally, patients with a higher TB exhibited greater impairment in quality of life according to the DLQI questionnaire.

Conclusion: Our study sheds light on the concept of TB. We found that this clinical measure is associated with factors of disease severity and complexity, such as longer disease duration, specific disease characteristics, and prior receipt of biological therapy. Patients with a higher TB also reported greater impairment in their quality of life. These results contribute to a better understanding of the significance and value of this clinical measure, which could ultimately help identify the optimal timing for initiating or switching biological treatment.

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Abstract N°: 2859

A split-face comparative study on efficacy of fractional CO2 laser with platelet rich plasma (PRP) vs microneedling with PRP in the treatment of atrophic acne scars

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Introduction & Objectives: Acne scarring is one of the most commonest complications of acne vulgaris. It is often difficult to treat due to lack or sub-optimal response to multiple therapies, thereby causing significant psychological distress especially in young age. Combination therapies are preferred more than usually to achieve better outcomes. We conducted a study with an objective to compare the efficacy of fractional CO2 laser with platelet rich plasma (PRP) vs microneedling with PRP in the treatment of atrophic Acne scars

Materials & Methods: This split-face prospective intervention study was carried out on 54 patients above 18 years of age with >2 score in quantitative Goodman and baron's acne scar grading system. Patients received fractional CO2 laser over one side of face, while the other side was treated with a 1.5mm dermaroller device (microneedling). Each procedure was followed by massaging the PRP over treated areas. Total four such treatment sessions were given at an interval of 4 weeks. Final follow up was done 04 weeks after the last session by calculating the quantitative and qualitative Goodman and baron's acne scar grading. Criteria for objective assessment of improvement of acne scars was: nil (no improvement in point score), satisfactory (≤25%), good (26-50%), very good (51-75%), and excellent (>75% improvement).

Results: The mean quantitative and qualitative Goodman and Baron score showed significant improvement pre and post treatment ($p < 0.001$) on both sides.** A total of 63%, 25.9%, and 1.9% patients showed good, very good, and excellent improvement with microneedling with PRP, respectively; whereas 50%, 37%, and 3.7% patients showed good, very good, and excellent improvement with CO2 with PRP. There was no statistically significant difference between the two treatment modalities. Minimal side-effects noted were erythema, edema, pain, itching, and hyperpigmentation.

Conclusion: Fractional CO2 laser combined with PRP is as effective as microneedling combined with PRP in the treatment of atrophic acne scar. Both the modalities significantly improve the appearance and number of atrophic acne scars.

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Abstract N°: 2871

Deep Learning Model Facilitates Identification of Common Facial Skin Diseases and Assessment of Acne Severity

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Introduction & Objectives:

Facial skin diseases are prevalent and impact physical appearance, quality of life, and mental health. Misdiagnosis and inadequate management worsen these conditions. Traditional methods for diagnosis and severity assessment are subjective and time-consuming. Therefore, there is an urgent need for efficient tools to aid in facial disease identification. Recent advancements in deep learning show promise in dermatological image analysis. This study aims to develop a comprehensive model for identifying facial skin diseases and assessing acne severity. By leveraging deep learning techniques, including multimodal fusion and lesion segmentation, this model seeks to provide accurate and efficient assistance to healthcare professionals in diagnosing and managing facial skin diseases.

Materials & Methods:

The dataset included 1469 clinical and 5365 dermoscopic images from 1041 cases with various facial diseases. The Swin Transformer was employed for image classification in a single-modality model, utilizing patch-based processing and downsampling. Data augmentation techniques were applied for model robustness. A multi-modal fusion approach integrated clinical and dermoscopic models, with clinical images initiating the process and dermoscopic images consulted based on clinical model outcomes. We train models based on clinical images of different lesions of acne (such as comedones, inflammatory papules, pustules, nodules, or cysts) to achieve accurate assessment of acne severity. Additionally, collaborative diagnosis involved 20 medical professionals (dermatologists, cosmetic surgeons, general practitioners) to independently assess acne severity and diagnose facial diseases, comparing results with the model outputs to enhance diagnostic accuracy and decision-making.

Results:

We present an AI-based recognition algorithm focused on five facial diseases: acne, rosacea, seborrheic dermatitis, viral warts, and pigmented disorders, utilizing clinical and dermoscopic images for recognition. Our approach integrates independent clinical-image and dermoscopy-image recognition models into a unified facial disease recognition process. Experimental results demonstrate robust performance: the clinical model achieved an accuracy of 0.990 and an F1 score of 0.922; the dermoscopic model achieved an accuracy of 0.985 and an F1 score of 0.950; and the fusion model achieved perfect accuracy and F1 score of 1.0. The results are better than those of the current advanced algorithms. Furthermore, the evaluation accuracy for acne grades 1-4 was 0.921, 0.752, 0.841, and 0.932, respectively. This model also achieved promising results in auxiliary diagnosis for junior dermatologists and general practitioners.

Conclusion:

In this paper, we have constructed a model for the identification of common facial diseases based on clinical images, and further developed a severity assessment model specifically for acne. These models outperform traditional approaches and are also lightweight, providing effective, convenient and rapid facial disease diagnostic tools for young dermatologists and healthcare providers.

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Abstract N°: 2902

Beyond the Skin: Thrombosis Risk in Hidradenitis Suppurativa

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Introduction & Objectives:

Both Dissecting Cellulitis (DC) and Hidradenitis Suppurativa (HS) are chronic inflammatory dermatological diseases characterized by formation of nodules, sinus tracts, and subsequent scarring in inverse areas in the case of HS, and scarring alopecia in DC. HS has garnered recent attention not only for its debilitating effects on patients' quality of life but also for its potential systemic implications regarding pro-inflammatory risk factors such as metabolic syndrome, which are linked to venous thrombosis. It is to note that vascular inflammation and venous thromboembolism have been linked with psoriasis (a condition that shares immunological characteristics with HS). These overactivation of proinflammatory cytokines in HS, would induce platelet activation, neutrophilic infiltration, thrombosis and endothelial dysfunction.

We present the case of a 39 year old male, in dermatology follow-up due to hidradenitis suppurativa (follicular subtype) plus dissecting cellulitis with good clinical response to off-label 100 mg Guselkumab every 8 weeks, a treatment he had been receiving for 3 years, plus 10 mg Acitretin daily, for 2.5 years. He had no other relevant conditions to the case (non-smoker, BMI 28).

After a period of months of good control of the disease, he was diagnosed a bilateral, both segmental and subsegmental pulmonary embolism after emergency consultation due to fever, dyspnoea and hemoptisis of acute presentation. As a relevant analytical finding, he presented a D-dimer of 2500 ng/ml. He is currently under study for trombophilia and procoagulant underlying conditions, with Dabigatran as his established anticoagulant therapy.

Materials & Methods:

After the experience with our previously described patient, we underwent a literature review regarding thrombosis risk in patients with HS.

Results:

In 2016, in a large Danish cross-sectional study, Miller et al. (1) compared a population of HS patients (n=462) with controls concluding of a no association between HS and venous thromboembolia (in contrast to previous findings in psoriasis). They consider the chronic inflammation of HS of low-impact and secondary to venous thrombosis, unlike arterial cardiovascular disease where inflammation precedes thrombosis in other metabolic conditions.

However, a recent multicenter retrospective cohort study from Garate et al. in 2024 (2), identified and compared 14.550 HS patients with matched controls, concluding that patients with HS had a significantly increased risk of VTE (HR [95% CI] = (1.27 [1.02, 1.58]) and PE (1.66 [1.22, 2.26]). Gender stratified analysis demonstrated that males with HS are at greater risk for both VTE and PE compared to females.

Conclusion:

The association between HS and venous thombosis risk has been controversial and studies in the last decades have shown different and opposite results. However, the recent cohort study from Garate et al., with the largest HS sample size of available studies, has concluded that there is indeed an increased risk for both venous thromboembolia and pulmonary embolism in HS patients compared to controls, specially in male patients.

We aim to shed light on the multifaceted nature of HS and underscore the importance of heightened vigilance and early interventions in managing thrombotic risks and complications in HS patients, who may not fulfill the classical thrombosis-associated clinical risk factors such as smoking habit or obesity.

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Abstract N°: 3070

Prospective, randomized comparative study to evaluate safety, tolerability and efficacy of topical minocycline gel 4% plus oral isotretinoin against oral isotretinoin only in Indian patients with moderate to severe acne vulgaris

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Introduction & Objectives:

In moderate to severe (M2S) acne vulgaris, oral antibiotics like tetracyclines are considered as first-line therapies.1,2 But for numerous decades, isotretinoin has defended its role as a successful tool in combatting the distortion related with M2S cases of acne. Concurrent use of tetracyclines and isotretinoin is known to cause pseudotumor cerebri (PTC)3, hence their combination is not recommended for treatment. But as per one study, isotretinoin in combination with doxycycline on alternate day was found to be efficacious and safe.4 Though, combination of oral minocycline and isotretinoin is not recommended, topical minocycline 4% gel was found to 765 times less absorbed systemically and hence all systemic adverse events, associated with oral minocycline were nullified by topical minocycline.5 Hence, the objective of the study is to investigate the safety and efficacy of combination of topical minocycline gel 4% and oral isotretinoin 20mg daily against isotretinoin only in the management of acne vulgaris in Indian population.

Materials & Methods:

This clinical study was conducted in 60 patients of M2S acne in Kolkata at 2 centers. Primary objective was to compare the safety, tolerability of combination of topical minocycline gel 4% and oral isotretinoin (Mino-Iso) against oral isotretinoin (Iso) only. Secondary objective consisted to compare efficacy in terms of change in inflammatory, non-inflammatory and nodulo-cystic lesion count from baseline till 12 weeks along with investigator global assessment (IGA) treatment success at week 12.

Results:

Baseline demographics of all patients is depicted in Table 1. In safety parameter, of 60 patients, 10 patients reported 11 adverse events. In Mino-Iso group, 6 patients reported 7 AEs while in Iso group 4 patients reported 4 AEs; p=0.73, (Table 2). One patient in Mino-Iso group had headache for which fundoscopy was done revealing no abnormality. Moreover, all AEs were mild in nature and resolved in due course of study.

In efficacy parameter, amongst all lesion counts, there was statistical significant difference for inflammatory lesion count between both the groups; p=0.01, (Table 3). Moreover, there was significant difference for IGA score between both the groups at week 12 which led to more number of patients achieving IGA treatment success in Mino-Iso group than Iso group. Twenty-seven (90%) patients in Mino-Iso group achieved IGA treatment success as compared to 19 (63.3%) patients in Iso group (Table 4).

Conclusion:

This is the first comparative clinical study examining the efficacy, safety, and tolerability of a combination of topical minocycline gel 4% and oral isotretinoin in comparison to oral isotretinoin only in the management of M2S acne. The results of this study indicate a statistically significant improvement in investigator global assessment

score and success rate in Mino-Iso group over Iso group in 12 weeks. In terms of safety, combination of topical minocycline and oral isotretinoin was very well tolerated and there was no significant difference between two groups. Hence, combination of topical minocycline 4% and oral isotretinoin can be considered a preferable choice for the treatment of individuals with M2S acne.

Table 1. Descriptive statistics for demographic and disease characteristics of patients at baseline in two treatment groups.

		Treatment		p value
Characteristics		**Isotretinoin + Topical minocycline gel (N=30)**	**Isotretinoin (N=30)**	
Age (years)[1]		20.98 ± 5.30; 20; (14, 34)	20.97 ± 5.61; 19; (14, 35)	0.49†
Gender[2]	Male	9 (30%)	15 (50%)	
	Female	21 (70%)	15 (50%)	
Grade of acne[2]	3	19 (63.3%)	23 (76.7%)	
	4	11 (36.7%)	7 (23.3%)	
Duration of acne (months)		7.47 ± 4.22; 6.5; (3,18)	7.63 ± 4.71; 7.5; (2, 18)	0.33†
No. of inflammatory lesions		32.09 ± 7.06; 35; (18, 45)	30.30 ± 8.12; 29; (14, 45)	0.17‡
No. of non-inflammatory lesions		41.20 ± 8.96; 42; (26, 58)	40.67 ± 9.28; 38; (12, 55)	0.37‡
No. of nodulocystic lesions		3.63 ± 1.00; 4; (1, 5)	2.97 ± 1.03; 3; (1, 5)	0.24†
IGA score		3.43 ± 0.50; 3; (3, 4)	3.30 ± 0.47; 3; (3, 4)	0.38‡

[1]Data expressed as mean ± SD; median; (min, max); [2]expressed as n (%); † obtained using t-test for independent samples; and ‡ obtained using Mann–Whitney U test

Table 2: Adverse events reported

Adverse events	Isotretinoin + Topical minocycline gel (N=6)	Isotretinoin (N=4)
Headache	1	0
Body ache	1	1
Upper respiratory infection	1	2
Stomach pain	0	1
Fever	1	0
Hyperpigmentation	1	0
Itching	1	0
Dryness	1	0

Table 3. Comparison of inflammatory, non-inflammatory and nodulocystic lesions between two groups

		Treatment						
Parameter	Visit	**Isotretinoin + Topical minocycline gel (N=30)**			**Isotretinoin (N=30)**			p valu
		Mean	SD	Median	Mean	SD	Median	
Number of inflammatory lesions	Baseline	32.90	7.06	35	30.30	8.12	29	0.1
	Week 4	23.03	8.79	20	22.33	10.55	19.5	0.5
	Week 8	13.27	10.80	8	15.67	12.45	10	0.3
	Week 12	6.03	8.90	0	9.87	12.20	2	**0.0**
	p value[1]		<0.0001			<0.0001		
Number of non-inflammatory lesions	Baseline	41.20	8.96	42	40.67	9.28	38	0.3
	Week 4	29.23	11.46	27	30.90	12.27	25.5	0.8
	Week 8	18.13	13.15	12	20.87	15.56	12	0.5
	Week 12	9.43	11.67	3	14.17	16.10	4	0.0
	p value[1]		<0.0001			<0.0001		
Number of nodulocystic lesions	Baseline	3.63	1	4	2.97	1.03	3	0.2
	Week 4	2.03	0.76	2	1.83	0.95	2	0.4
	Week 8	0.90	0.92	1	1.13	0.97	1	0.3
	Week 12	0.17	0.38	0	0.37	0.61	0	0.3
	p value[1]		<0.0001			<0.0001		

[1]Obtained using Friedman ANOVA and [2]obtained using Mann–Whitney U test. Bold p-value indicates statistical significance.

Table 4. Comparison of investigator's global assessment parameters between two groups

		Treatment						
Parameter	Visit	**Isotretinoin + Topical minocycline gel (N=30)**			**Isotretinoin (N=30)**			p value[2]
		Mean	SD	Median	Mean	SD	Median	
Investigator global assessment score	Baseline	3.43	0.50	3	3.30	0.47	3	0.38
	Week 4	2.60	0.50	3	2.63	0.49	3	0.83
	Week 8	1.67	0.66	2	1.97	0.81	2	0.18
	Week 12	0.47	0.68	0	1.07	0.78	1	**0.005**
	p value[1]		<0.0001			<0.0001		
Investigator's Global Assessment—Treatment success at (YES)			n (%)			n (%)		p value[3]
	Baseline		0 (0)			0 (0)		
	Week 4		1 (3.3)			0 (0)		1
	Week 8		19 (63.3)			18 (60.0)		1
	Week 12		27 (90)			19 (63.3)		**0.03**

[1]Obtained using Friedman ANOVA; [2]obtained using Mann–Whitney U test; and [3]obtained using chi-square test. Bold p-value indicates statistical significance.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
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Abstract N°: 3218

Effect of smoking cessation and weight change on hidradenitis suppurativa

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Introduction & Objectives:

The precise influence of weight change after quitting smoking on hidradenitis suppurativa (HS) is still unclear. We aimed to investigate the link between quitting smoking, weight changes, and the risk of developing HS.

Materials & Methods:

Utilizing the Korean National Health Insurance Service database, this large cohort study enrolled 5,577,636 individuals who underwent biennial health examinations from 2004 to 2007. During these examinations, data on smoking cessation and weight change, assessed through body mass index, were gathered.

Results:

Compared to continual smokers, quitters who experienced weight gain (adjusted hazard ratio [aHR] 0.70; 95% confidence interval [CI] 0.54–0.92), quitters without weight change (aHR 0.57; 95% CI 0.39–0.82), and quitters with weight loss (aHR 0.84; 95% CI 0.56–1.26) all exhibited lower risks of HS, although statistical significance was weakened in quitters with weight loss. The sensitivity analyses, taking into consideration alterations in smoking habits and body weight, demonstrated similar results that aligned with the primary findings.

Conclusion:

The protective effect of quitting smoking on HS remained robust even in the presence of weight gain following smoking cessation. Promoting smoking cessation as a crucial preventive measure for HS is imperative

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Abstract N°: 3234

Innovative Acne Management: Efficacy of Monopolar Radiofrequency and Bipolar Radiofrequency Microneedling as Alternatives to Conventional Treatments

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Introduction & Objectives:

Conventional acne treatments, while generally effective, do not meet the needs of all patients. Issues such as non-compliance with topical medications, undesirable side effects, contraindications to oral therapies, or a lack of response to standard treatments necessitate the exploration of alternative approaches. This presentation discusses the application and outcomes of energy-based devices, specifically Monopolar Radiofrequency (RF) and Bipolar RF Microneedling, as promising alternatives for such challenging acne cases.

Materials & Methods:

The session will begin with an overview of the limitations faced with traditional acne treatments, highlighting the necessity for alternative therapeutic options. It will then introduce the principles of monopolar and bipolar radiofrequency (RF) and microneedling RF technologies, focusing on their mechanisms of action which include selective sebaceous gland destruction and enhanced dermal remodeling.

Results:

Clinical data and case studies demonstrating the efficacy of both modalities in treating acne will be presented. The effectiveness of these treatments in reducing acne severity, minimizing future outbreaks, and addressing post-acne scarring will be examined. Special attention will be given to their safety profiles, ease of use, and patient satisfaction, particularly in populations difficult to treat with standard protocols.

Furthermore, the discussion will extend to the practical integration of these technologies into clinical practice. It will cover patient selection criteria, treatment planning, and management of expectations. The potential of these treatments to reduce dependency on pharmacological interventions, thereby enhancing patient adherence and satisfaction, will also be explored.

Conclusion:

In conclusion, this presentation aims to illustrate the valuable Monopolar RF and Bipolar RF Microneedling in modern dermatology, offering dermatologists a viable alternative to enhance treatment outcomes in patients who are unresponsive or unsuitable for conventional acne therapies.

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Abstract N°: 3249

Treatment of nevus comedonicus by the 650-microsecond 1064nm Nd:YAG laser

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Introduction & Objectives: Nevus comedonicus is an uncommon epidermal nevus, occasionally linked with congenital anomalies and characterized by linear arrays of dilated follicular openings with dark keratin plugs. It can be isolated or, rarely, associated with congenital anomalies (Nevus comedonicus syndrome). The condition can cause significant cosmetic concerns, leading to a high demand for effective treatments. Current therapeutic approaches often yield unsatisfactory results, including topical/systemic retinoids, surgical excision, and ablative lasers. A 1450nm diode laser and radiofrequency with microneedling have been used with limited efficacy.

To report the efficacy of a 650-microsecond pulse 1064nm Nd:YAG laser (Neo Elite by Aerolase, Tarrytown, NY), previously successful in treating various disorders of the pilosebaceous unit (acne, acne keloidalis nuchae, pseudofolliculitis barbae, et al.). This laser can target cutaneous adnexal structures and sebaceous glands. The shorter microsecond pulse duration, compared to millisecond pulse duration lasers, reduces heat diffusion, allowing better tolerance.

Materials & Methods: A 14-year-old female patient, Fitzpatrick skin type 2 presented with a congenital linear nevus comedonicus on the right side of the chest. Initial treatment with topical retinoids resulted in only mild and transient improvement of black comedons. After experiencing a negative psychological impact due to the skin condition, she sought an alternative therapeutic approach. After obtaining parental consent, the patient underwent four sessions with the 650-microsecond pulsed laser. The first three sessions were performed every two weeks, and a fourth seven weeks after the third.

A two-step protocol was always used at each session, with a 650-microsecond pulse duration. Step one: 6mm lens, 24 J/cm2, and six passes over the affected area. Step two: 2mm lens, 96 J/cm2 and 169 J/cm2, and 3-5 pulses applied to each papule (open comedones or scar-like white papulae). Local anesthetic was used for the first three sessions and none for the fourth.

Results: The patient experienced excellent tolerance to the treatment (Pain score of 0 at 24 J/cm2 and 3 at 169 J/cm2), with only mild erythema noted post-procedure. An 80% improvement was reported by the patient after four sessions, with significant flattening of white papulae and reduction of black comedones. Moreover, the patient noted a considerable enhancement in quality of life, including a reduced need to conceal the lesion with clothing.

Conclusion: The 1064nm 650-microsecond laser presents a promising treatment option for nevus comedonicus, as evidenced by the marked improvement in this case. Further studies with additional cases and long-term follow-up are necessary to validate these preliminary findings.

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Abstract N°: 3278

Efficacy and safety evaluation of a micellar water in subjects with acne: a new product to clean oily skin

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Efficacy and safety evaluation of a micellar water in subjects with acne: a new product to clean oily skin

Aida Serra-Ribas, Javier Bustos, Albert Navasa, Mónica Foyaca

Introduction & Objectives:

Acne vulgaris is an inflammatory disease of the pilosebaceous unit of the face and trunk skin. Abnormal proliferation of keratinocytes, altered sebum production, inflammation of the sebaceous follicle, and colonisation by Corynebacterium acnes have been traditionally implicated. Current therapy of acne is based not only on the use of specific drugs, but also on ''complementary'' products, such as moisturizers, cleansers, and sunscreens. All these products have acquired a great importance in the last years. In addition, major side effects related with face cleansers over washing are dryness and irritation of the skin. The objective of these studies were to evaluate the safety and efficacy to improve facial acne symptoms, and the cleansing efficacy of a micellar water.

Materials & Methods:

Study 1 (S1): Assessment cleansing efficacy by C-Cube on forearms in 22 subjects with 5 makeup products (waterproof mascara, liquid lipstick and foundation, bar lipstick and coloured sunscreen).

Study 2 (S2): Thirty subjects, mean age 25±3 years old (y.o), with mild-moderate acne (GEA scale II and III), oily skin (<100 µg Sebo/cm2 value on the forehead) were included in this study. Among them, 23% were adolescents from 12 to 17 y.o, and 57% subjects also had sensitive skin. All the subjects used micellar water for 28 days (D28). Facial counting lesions were evaluated using Lucky method at baseline (D0) and D28, mattifying effect was measured with Sebumeter at D0 and immediately after first application and, pore size was measured by VISIA CR-system on D0, immediately after first application and D28. Finally, a subjective questionnaire to evaluate the efficacy of the product was carried out at D28. Ocular and cutaneous acceptability were examined under dermatological and ophthalmological control.

Results:

In S1, the product showed a cleansing efficacy mean of 91.7% (74.7% waterproof mascara, 96.3% waterproof liquid lipstick, 93.1% bar lipstick, 99.5% colour sunscreen and 94.9% waterproof foundation).

In S2, closed comedones and papules were statistically significantly reduced (30%; $p<0.005$), (70%; $p<0.001$) after D28, respectively. Statistically significant decrease of sebum content (76%; $p<0.0001$) after first application. It showed a mattifying effect. The pore size was significantly reduced ($p<0.001$, both) by 11.2% and 13.3% immediately and after D28, respectively. Excellent subjective appreciation after D28 for its properties and for its efficacy. Very good dermatological and ophthalmological acceptability and tolerability were determined.

Conclusion:

The product has an excellent cleansing efficacy, immediate mattifying effect, reduced pore size immediately and on day 28, and reduced global acne lesions on day 28 using the product. Moreover, it was well appreciated by

most of the subjects.

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Abstract N°: 3283

Clinical evaluation of the efficacy and tolerance of a cosmetic routine for acne prone skin including a cleansing gel and a body spray containing glycolic and salicylic acid.

Aida Serra[1], Georgina Logusso*[1], Javier Bustos[1], Monica Foyaca[1]

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Clinical evaluation of the efficacy and tolerance of a cosmetic routine for acne prone skin including a cleansing gel and a body spray containing glycolic and salicylic acid.

Aida Serra-Ribas, Georgina Logusso, Javier Bustos, Mónica Foyaca

Introduction & Objectives:

Acne is a common disease with a prevalence of up to 80% during adolescence. It occurs in areas with sebaceous follicles, especially on the face, back and chest. The cause of body acne remains unknown, but it is estimated that around 61% and 45% of patients have acne on the back and chest. These areas are more difficult to treat due to the difficulty of applying treatments for the anatomical impediment, physical irritation caused by rubbing and the lack of topical therapeutic alternatives. The aim of this study was to evaluate the tolerability and the efficacy of a cosmetic routine (CR) including a cleansing gel and a body spray containing glycolic and salicylic acid.

Materials & Methods:

We carried out an open intra-individual study including 30 subjects (mean age 24.1 years), with mild to moderate acne on the body according to the GEA scale and at least 5 inflammatory lesions on the back. All subjects use the CR twice a day for 28 days (28D). The number of non-inflammatory and inflammatory lesions and instrumental measurements of the lipidic index with a Sebumeter were obtained at 0D and 28D. Cutaneous tolerance and Global Assessment (IGA) of acne severity was evaluated by a dermatologist at 28D. Cosmetic qualities and subjective efficacy of both products, and Global Assessment (SGA) of acne severity was evaluated by the participants at 28D. Moreover, illustrative images were taken. Statistical analysis was performed.

Results:

After 28D of application, the CR presented a significant decrease ($p<0.002$, all) of 15.4%, 26.0%, 19.1% and 21.2% in non-inflammatory lesions, inflammatory lesions, total lesions count and skin lipidic index, respectively. Additionally, the percentage of subjects with an improvement on IGA and SGA on acne severity, regarding D0, were 73.3% and 83.3%, respectively.

Regarding the self-assessment of cosmetic qualities and efficacy of the cleansing gel participants considered that cleaning power of the product is good (96.7%), the product removes dirt easily (96.7%) and removes excess sebum/oily sensation (93.3%). Referring to the body spray, participants considered that the product spreads easily, permits easy application on back, shoulders and chest, and their skin is less oily (83.3%, all).

Moreover, they appreciated the product format and the application was described as pleasant and easy. The CR presented a good skin compatibility and acceptability.

Conclusion:

The CR has demonstrated to have the capacity to statistically decrease the skin lipidic index, having also a non-

acnegenic effect after 28 days of application. Moreover, the cleansing gel and the innovative format of the body spray were well appreciated by the participants due to its efficacy and ease of application.

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Abstract N°: 3286

Phototherapy for acne with blue light: how to optimize the results and minimize the side effects with a dedicated cosmetic treatment protocol

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Introduction & Objectives:

The aim of this study was to evaluate how the use of an adjunctive treatment with appropriate cosmetic products could influence the outcome of acne phototherapy with blue light

Materials & Methods:

A total of 20 patients, affected by acne vulgaris, classified as moderate severity acne according to IGA scale, recommended by the FDA 2005, 4 females and 6 males, age range 16-34, were included and randomly assigned to two groups of 10 patients: group 1 included patients treated only with blue light phototherapy; group 2 included patients treated with blue light phototherapy associated with a cosmetic treatment. A weekly treatment with LED phototherapy was performed for 6 weeks and then patients were followed for 8 more weeks. The degree of acne using the IGA scale at the beginning and the end of treatment were evaluated. Systemic and topical treatments for acne were suspended during the study (except specific cosmetic treatment in group 2), with a wash out period of 1 month. The light source that was used for acne phototherapy was a LED Lamp for Photodynamic Therapy, Multilite (GME, GmbH), and irradiation with 415 nm was selected. The cosmetic treatment protocol (in group 2) consisted in: 1) 15 days pretreatment period with a soothing detergent (containing Jojoba microspheres, allantoin and other moisturizing principles) and application twice daily of a light peel cream with free and microencapsulated slow release 2% salicylic acid and moisturizing actives; 2) during the treatment period with phototherapy daily use of a 50+ sunscreen containing a patented combination between azelaic acid and glycine and antioxidants, then, after the treatment session use of a soothing foam containing 20% zinc oxide and aloe vera extract; 3) follow up: patients continued using the detergent of the pretreatment phase and applied, on a daily basis, a a gel containing retinol in liposomes, moisturizing actives and antioxidants. The following evaluations were carried out during the study at each control visit (one visit every two weeks in the treatment period and a monthly visit in the follow up period): acne scoring with count of the lesions; evaluation of side effects and tolerability at each visit (score from 0 to 3 for erythema, dryness, peeling, pruritus, swelling, burning sensation); assessment of skin hydration with a Corneometer CM 825 (Courage & Khazaka GmbH); questionnaire at the end to evaluate compliance, satisfaction and tolerability of the protocol.

Results:

There was a reduction from one to two degrees in the severity of acne according to the IGA scale, which was demonstrated in all the patients after the last treatment. The clinical picture, in some patients, further improved at week 14, at the end of the follow up period. The comparison of the preliminary results of the tests and questionnaires that were carried out in both groups showed better outcomes concerning the tolerability, patient's satisfaction, and side effects of the phototherapy treatment in the group in which the cosmetic treatment protocol was associated.

Conclusion:

LED phototherapy with blue light is useful and well tolerated in patients with moderately severe acne vulgaris. A specific cosmetic treatment associated with phototherapy can minimize the side effects and improve the acceptance and tolerability of the treatment. In some cases this approach (blue light + cosmetic treatment) can be sufficient to control acne without the use of systemic and topical drugs.

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Abstract N°: 3393

Insights into outcome measures in patients with Hidradenitis Suppurativa treated with Secukinumab

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Introduction & Objectives: HiSCR is the most commonly used measure to assess treatment effectiveness in Hidradenitis Suppurativa (HS). Recently, the IHS4-55 has been introduced, which has the advantage of including draining tunnels in its calculation. When reporting results, many studies solely report outcomes for patients continuing medication, potentially inflating efficacy data by excluding discontinuations due to ineffectiveness. Moreover, both tools focus solely on the lesion count, disregarding patients' perspectives. Our objective is to compare effectiveness outcomes using two analysis methods: intention-to-treat and per-protocol analysis. Additionally, we aim to examine the correlation between HiSCR and IHS4-55 with Pain NRS30, a subjective measure of pain in HS patients.

Materials & Methods: We conducted a multicenter retrospective study. We included patients with moderate to severe HS who initiated secukinumab for HS. Follow-up lasted for 24 weeks. The main outcome was effectiveness, assessed by HiSCR, IHS4-55, and pain through NRS30. Analyses were performed both on an intention-to-treat and per-protocol basis.

Results: 67 patients were included (33 men and 34 women) with a mean age of 41.55 years (±11.94) and a mean baseline IHS4 score of 17.88 (±11.13). Before reaching week 24, 13 patients discontinued secukinumab treatment: 7 due to worsening of HS despite treatment, 3 due to adverse effects, and 3 due to loss to follow-up. In terms of intention-to-treat analysis, by week 24, 41.79% (28/67) of patients achieved HiSCR, and 44.78% (30/67) achieved IHS4-55. When considering per-protocol analysis, by week 24, 62.22% (28/45) of patients achieved HiSCR, and 55.56% (30/54) achieved IHS4-55. HiSCR was not calculable in 9 patients with baseline AN <3. At week 24, 61.22% (30/49) patients achieved NRS30. Data on pain was missing for 5 patients. Out of the 30 patients who reached NRS30, 90% (27/30) also achieved IHS4-55, while 92% (23/25) attained HiSCR (HiSCR was not calculable in 5 patients with baseline AN <3).

Conclusion: based on these findings, excluding patients who discontinue secukinumab for any reason, as well as those with a baseline AN <3 where HiSCR is not calculable, may lead to potentially inflated effectiveness results compared to analyzing all patients initiating treatment. Moreover, our study reveals a strong correlation between objective outcomes noted by physicians (inflammatory lesion count) and subjective outcomes reported by patients (HS-related pain). However, it's worth noting that some patients, despite achieving objective results (HiSCR or IHS4-55), experience minimal reduction in pain. This should prompt us to question whether the treatment is being truly effective in these patients.

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Abstract N°: 3435

Psychometric Evaluation of the Hidradenitis Suppurativa Impact Assessment (HSIA) in Adults With Moderate-to-Severe Hidradenitis Suppurativa: Data From a Randomized, Phase 2 Upadacitinib Trial

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Introduction & Objectives:

Hidradenitis suppurativa (HS) symptoms have significant and enduring negative impacts on patients' lives. The Hidradenitis Suppurativa Impact Assessment (HSIA) is a patient-reported outcome (PRO) questionnaire designed to measure the impact of HS on daily living during the past 7 days in adults (≥ 18 years) and adolescents (12–17 years). Herein, the reliability of the HSIA scores was evaluated using best practice guidelines for psychometric evaluation to measure the impact of HS.

Materials & Methods:

The HSIA is an 18-item PRO questionnaire, but only items 1–14 are subject to the present analysis. Each of these items is scored on an 11point numeric rating scale ranging from 0 ("No impact") to 10 ("Extreme impact") to assess the impact of HS symptoms on daily living during the past 7 days to create a HSIA overall score (average of all 14 items), a mobility score (average of items 2–5), and an emotional functioning score (average of items 8–12). Each score required completion of ≥ 50% of their respective items. Results from the present analysis are from a phase 2, multicenter, randomized, double-blind trial investigating upadacitinib 30 mg vs placebo in adults with moderate-to-severe HS (NCT04430855). The HSIA was administered at baseline and weeks 4, 12, and 16.

Results:

Data from 68 patients (mean [SD] age, 33.6 [11.9] years; 77.9% female; 61.2% White) were analyzed. Descriptively, patients used the entire range of responses (0–10) for all items across each time point, with patients reporting the most severe impacts of HS (mean [SD]) to be feelings of self-consciousness (7.3 [3.5]), bother (7.1 [3.0]), embarrassment (6.7 [3.8]), and on their desire to have sex (6.7 [4.1]). Internal consistency, as estimated at baseline and week 12 by Cronbach's alpha coefficient, was excellent for the weekly HSIA overall (α = 0.94; 0.97), mobility (0.79; 0.85), and emotional functioning (0.93; 0.97) scores (**Table**). Test-retest reliability estimates using the intraclass correlation coefficient were primarily moderate (0.50 to 0.74) to good (0.75 to 0.90) for each of the weekly HSIA overall (0.72 to 0.85), mobility (0.67 to 0.80), and emotional functioning (0.74 to 0.80) scores among various test-retest samples. Concurrent validity analysis indicated a strong relationship for average weekly HSIA overall score, average emotional functioning score, and average mobility score to weekly Patient Global Assessment of Skin Pain, Hidradenitis Suppurativa Symptom Assessment (HSSA) item and total scores, and Dermatology Life Quality Index total scores. Known-groups analysis suggested some sensitivity to HS lesion count and HSSA score categories at week 12.

Conclusion:

In the present analysis, the average HSIA overall score, average emotional functioning score, and average mobility score were shown to be reliable for use in research settings, and, moreover, that valid inferences can be made

from those scores in terms of the severity of impact that HS has on patients' lives. These results will be of immediate value for researchers interested in evaluating the treatment effects among adult patients with moderate-to-severe HS.

Table. Psychometric Properties of the HSIA

Assessment	Overall Score	Emotional Functioning Score	Mobility Score
Reliability			
Test-retest, ICC			
Same IHS4, BL to Wk 2	0.78	0.79	0.73
Same IHS4, Wk 2–4	0.85	0.80	0.80
Same PGA Skin Pain, BL to Wk 2	0.72	0.74	0.67
Same PGA Skin Pain, Wk 2–4	0.82	0.79	0.75
Validity			
Concurrent validity, Spearman's coefficient between HSIA and other instruments at Wk 12			
PGA Skin Pain	0.88	0.80	0.85
Hurley Stage	0.44	0.34	0.46
Lesion count	0.45	0.35	0.53
IHS4 score	0.52	0.43	0.58
DLQI total score	0.86	0.81	0.83
HSSA total score	0.88	0.80	0.87
Known-groups validity, known-groups mean (SD)			
Wk 12 HS total lesion count			
First tertile	1.9 (2.2)	2.5 (2.7)	1.3 (2.1)
Second tertile	4.0 (2.6)	4.9 (3.3)	2.9 (2.1)
Third tertile	5.2 (3.2)	5.7 (3.6)	4.6 (3.2)
Wk 12 IHS4 categories			
Mild	0.9 (0.8)	1.8 (1.9)	0.3 (0.5)
Moderate	3.2 (2.6)	3.8 (3.2)	2.4 (2.1)
Severe	4.6 (3.1)	5.3 (3.5)	3.9 (3.0)
Wk 12 Hurley stage			
Stage I	1.6 (2.0)	2.4 (2.5)	1.4 (2.4)
Stage II	2.9 (2.7)	3.7 (3.0)	2.1 (2.3)
Stage III	5.6 (3.0)	6.1 (3.7)	4.7 (2.8)

BL, baseline; DLQI, Dermatology Life Quality Index; HS, hidradenitis suppurativa; HSIA, Hidradenitis Suppurativa Impact Assessment; HSSA, Hidradenitis Suppurativa Symptom Assessment; ICC, intraclass correlation; IHS4, International Hidradenitis Suppurativa Severity Score System; PGA, Patient Global Assessment; Wk, week.

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Abstract N°: 3440

Clinical Efficacy of a New Formulation Containing BHA, Thiamidol, and Licochalocone A in Patients with Truncal Acne and Post-Inflammatory Hyperpigmentation

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Introduction & Objectives:

Body acne is a common condition that affects a significant proportion of individuals with facial acne. It can cause persistent scarring and has a higher impact on quality of life than facial acne alone. Thiazolyl Resorcinol (Thiamidol) has emerged as an effective inhibitor of human tyrosinase that can reduce post-inflammatory hyperpigmentation (PIH). In this study, we investigated the clinical efficacy of a new formulation containing BHA (Salicylic Acid), Thiamidol, and anti-inflammatory Licochalocone A in patients with truncal acne and PIH.

Materials & Methods:

We conducted three studies to evaluate the efficacy of the new formulation. In clinical study 1, 38 female and male subjects with oily or combination skin type, presenting blemishes & post-acne marks on the body, applied the formulation once per day on the affected body areas over the course of 4 weeks. Self-grading of clear, unblemished complexion, expert grading on inflammatory lesion count, self-grading of visibility of post-acne marks and Self-grading of redness reduction was evaluated. In clinical study 2, 27 female subjects underwent Corneometer measurement 24 hours after a single application to evaluate moisture. In study 3, a product in use study was conducted with results after 8 weeks of application, including Cardiff Acne disability index.

Results:

The results showed a 55% improvement in clear, unblemished complexion, a 33% reduction in inflammatory lesions, and a 67% reduction in the visibility of post-acne marks. Redness was reduced by 31%, and moisture increased significantly. The product in use study showed a 53% improvement in the Cardiff Acne disability index, proving an improvement in quality of life. 99% of patients confirmed that they were now more confident to wear outfits that show off their skin.

Conclusion:

The new formulation containing BHA, Thiamidol, and anti-inflammatory Licochalocone A is an effective treatment for truncal acne and PIH. It significantly improves the appearance of the skin, reduces inflammation, and increases moisture. The formulation also has antimicrobial properties and improves quality of life. The results of this study suggest that this formulation can be a promising treatment option for patients suffering from body acne.

EADV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 3447

Clinical Efficacy of a New Cleansing Formulation Containing AHA, BHA, and PHA in Patients with Acne-prone skin and Post-Inflammatory Hyperpigmentation

Julia Gallinger*[1], Katrin Klensang[1], Katja Warnke[1], Silke Kohlhase[1], Anja Drucks[1], Anne-Christin Worthmann[1], Sascha Baumann[1], Anette Bürger[1]

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Introduction & Objectives:

Effective cleansing is crucial for managing acne, and post-inflammatory hyperpigmentation (PIH) is a common consequence of acne. Exfoliating ingredients like alpha-hydroxy acids (AHAs), beta-hydroxy acids (BHAs), and poly-hydroxy acids (PHAs) can be useful in reducing PIH. In this study, we investigated the clinical efficacy of a new cleansing formulation containing AHA (glycolic acid), BHA (salicylic acid), and PHA (gluconolactone) in subjects with acne-prone skin and PIH.

Materials & Methods:

A single-blind, randomized, controlled, clinical trial was conducted on 31 male and female subjects, aged 19-49 years, with oily or combination skin type and PIH. The subjects used the formulation twice daily for four weeks, clinical evaluations were conducted at baseline and after four weeks, assessing tolerability and efficacy parameters (lesion count, PIH improvement). The antibacterial efficacy against *Cutibacterium acnes* was evaluated *in vitro* using a suspension assay. The impact on quality of life was assessed using the Cardiff Acne Disability index (CADI) on 119 male and female subjects aged 12-40 years with normal to oily acne-prone skin, presenting mild acne lesions and PIH on the face and on body.

Results:

After four weeks of treatment, both blemishes and PIH improved significantly without drying out or irritating the skin. The in vitro suspension test showed a 99.9% reduction in *C. acnes* colony-forming units after 60 seconds, demonstrating the antibacterial effect of the formulation. Analysis of Quality of Life by CADI revealed that after four weeks, subjects experienced an average score improvement of 55%.

Conclusion:

The new cleansing formulation containing AHA, BHA, and PHA is an effective and gentle option for reducing and preventing both blemishes and PIH, thus improving the quality of life of the patient.

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Abstract N°: 3459

What role could a dermocosmetic skin care regimen play in acne patients under isotretinoin? – Results of a 12-week observational study in Poland

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Introduction & Objectives:

Isotretinoin is a widely used drug in the management of severe acne which is highly effective in improving acne and decreasing the risk of complications (scarring, post-inflammatory hyperpigmentation) but leads to skin side effects. Indeed, skin dryness occurs in almost all patients during treatment, at a dose dependant severity. Dermocosmetics are recommended to prevent and mitigate these side effects. This 12-week observational study assessed the efficacy and safety of a dermocosmetic skin care regiment (cream and washing cream) as an adjunct to isotretinoin therapy in moderate to severe acne vulgaris.

Materials & Methods:

Acne patients with moderate to severe acne candidate to isotretinoin were included. All subjects were instructed to use dermocosmetic cream (containing Bixa Orellana seed extract, niacinamide, panthenol, Aqua Posae Filiformis APF) and washing cream (containing Bixa Orellana seed extract, niacinamide, mannose and APF) twice daily as an adjunct to isotretinoin. At baseline, were collected information regarding patients demographic, skin phototype, use of contraception, severity of sebum secretion, assessment of skin sensitivity, and acne sequelae (hyperpigmentation, erythema, and scarring). Local adverse events and tolerability issues linked with oral isotretinoin was assessed at the initial and end visits. At both visits, all participants were questioned about their quality of life index and subjective feelings (pruritus, pain, stinging, or tingling). Moreover, satisfaction with the treatment regimen survey was performed at the evaluation visit.

Results:

109 acne patients were included in this study (mean age range 18-21). More than half of the patients were women with phototype II (according to Fitzpatrick's score). After 12 weeks of therapy, acne severity was assessed as GEA 2 or less in 71.6% of patients, and improvement of 2 or more grades on the GEA score was noted in 48.6% of all cases. The sebum-suppressive effect was observed in all patients and the topical regimen did not cause excessive sebum production. There was a statistically significant reduction in erythema, scaling, and dryness ($p<0.05$) after 12 weeks. Patients reported improvement in subjective sensations like pruritus, tingling and stinging. Quality of life improved at week 12 in most of cases, in which 79.8% of respondents showed a sustained improvement in feelings of anxiety and depression. 97.3% of all patients rated tolerance of the prescribed regimen as high or excellent.

Conclusion:

In this 12-week observational period, most of the patients experienced a reduction of cutaneous side effects under isotretinoin, such as dryness, erythema, and scaling. As a result, patients' quality of life improved noticeably.

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Abstract N°: 3482

The IL-17A- and IL-17F-inhibiting Nanobody sonelokimab in patients with moderate-to-severe hidradenitis suppurativa (HS): Week 24 International Hidradenitis Suppurativa Severity Score System (IHS4) results from the Phase 2 MIRA trial

Brian Kirby*[1], John W. Frew[2, 3], Martina J. Porter[4], John R. Ingram[5], Errol Prens[6], Alexandra P. Charrow[7, 8], Christopher J. Sayed[9], Melinda J. Gooderham[10], Laura Savage[11], Alex Godwood[12], Naomi Attar[12], Eva Cullen[12], Kristian Reich[12, 13], Falk G. Bechara[14]

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Introduction & Objectives: Sonelokimab is a novel humanized Nanobody with a high affinity to IL-17A and IL-17F, which are important drivers of inflammation in HS. Being small in size (~40 kDa) and containing an albumin-binding domain, sonelokimab is designed to penetrate difficult-to-reach inflamed tissues and directly target sites of inflammation. In the Phase 2 MIRA trial, a significantly higher proportion of patients with moderate-to-severe HS achieved the primary endpoint of Hidradenitis Suppurativa Clinical Response 75 (HiSCR 75) with sonelokimab (120mg, 43.3%, $P<0.001$; 240mg, 34.8%, $P=0.007$) vs. placebo (14.7%) at Week (W) 12 (ITT-NRI). Further improvements were observed at Week 24.1 A key secondary endpoint was change from baseline in IHS4, a dynamic clinician-reported outcome measure that evaluates inflammatory nodules (1 point), abscesses (2 points), and draining tunnels (4 points). This endpoint was also met, with a significant improvement seen with sonelokimab (120mg, −19.3, $P<0.001$; 240mg, −14.5, $P=0.020$) vs. placebo (−7.9) at W12 (ITT, LSM, MMRM analysis). Here, we present W24 IHS4 results from the MIRA trial.

Materials & Methods: MIRA was a 24-week global, randomized, prospective, parallel-group, doubleblind, placebo-controlled Phase 2 trial (NCT05322473). Eligible patients were ≥18 years old with HS for ≥6 months, Hurley Stage II/III, total abscess and/or inflammatory nodule (AN) count ≥5, and HS lesions in ≥2 distinct anatomical areas. At W12, patients receiving sonelokimab (120mg or 240mg) continued their allocated dose and patients receiving placebo were re-randomized 1:1 to sonelokimab 120mg or 240mg. Absolute and percent changes in IHS4 from baseline were assessed at W24. Disease severity was graded using IHS4 classifications of 'inactive or mild' (≤3), 'moderate' (4–10), or 'severe' (≥11). As a *post hoc* analysis, IHS4 was evaluated in a subgroup of patients with 'very severe' HS at baseline, defined as the upper tertile of patients with a 'severe'

disease severity grade (minimum baseline IHS4 score of 35). W24 data are reported as observed (discontinuation rate <10%).

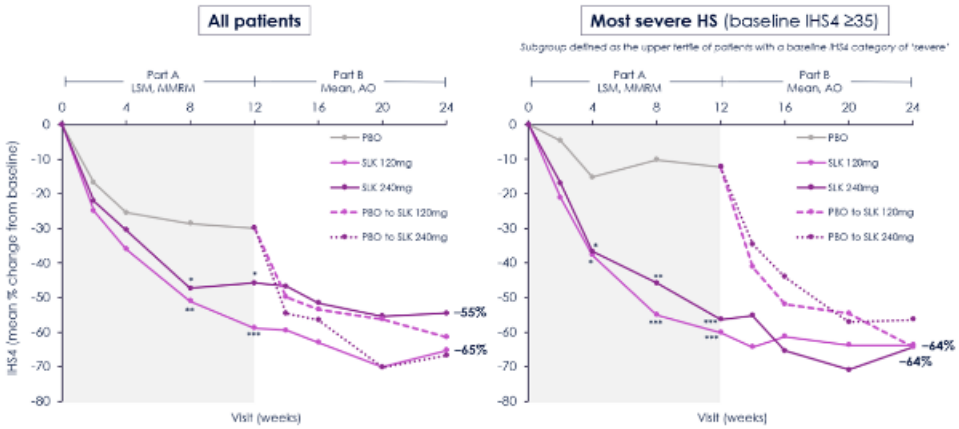
Results: At baseline, 67 and 66 patients were randomized to receive sonelokimab 120mg and 240mg, respectively. Mean IHS4 score at baseline was 30.9; all patients had a 'moderate' (15.0%) or 'severe' (85.0%) IHS4 severity grade. Improvements in IHS4 continued to be observed with sonelokimab at W24 (mean [%] change from baseline: 120mg, −22.3 [−65.2%]; 240mg, −15.9 [−54.5%]), and were consistent even in patients with the most severe disease at baseline (patients with baseline IHS4 ≥35: 120mg, −63.8% [n=20]; 240mg, −64.3% [n=17]). Results in patients switching from placebo to sonelokimab were similar to those in patients randomized to sonelokimab at baseline (**Figure 1**). Finally, 47% of patients receiving sonelokimab 120mg achieved 'inactive or mild' disease (IHS4 ≤3) by W24 (**Figure 2**), including 24% with inactive disease (IHS4=0).

Conclusion: In the MIRA trial, the IL-17A- and IL-17F-inhibiting Nanobody sonelokimab demonstrated substantial improvements in IHS4 to W24, owing to efficacy across all three key inflammatory HS lesion types. These findings are consistent with previously reported high HiSCR 75 responses. The ongoing Phase 3 VELA 1 and 2 trials will further examine IHS4 outcomes with sonelokimab 120mg in patients with moderate-to-severe HS.

References:

1. Kimball AB, *et al*. AAD 2024 (Abstract 56014).

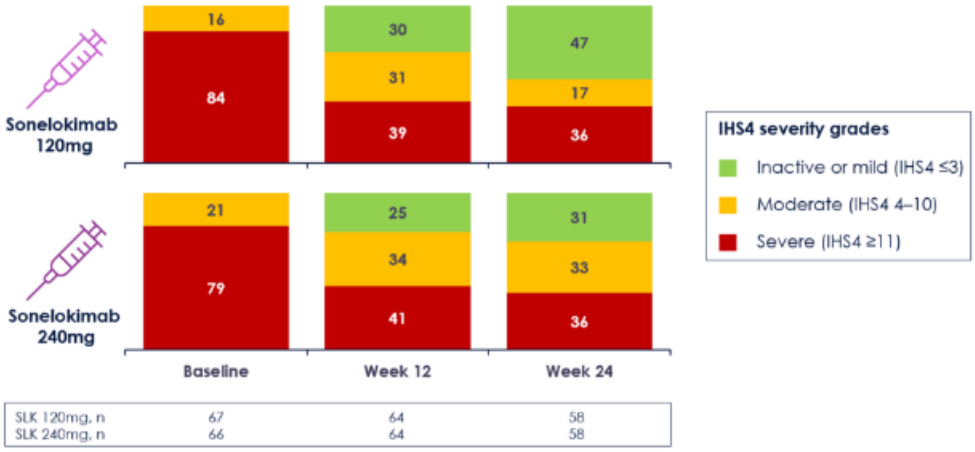
Figure 1. Percent change from baseline in IHS4 score



***P<0.001, **P<0.01, *P<0.05; P-values are nominal. IHS4 data from Week 14 to Week 24 are as observed. IHS4 data from Week 0 to Week 12 are LSM % change from baseline with P-values analyzed using MMRM with treatment group, visit, Hurley Stage status, prior biologic use, associated baseline measurements, and visit by treatment as fixed effects and patient as a random effect.

AO, as observed; IHS4, International Hidradenitis Suppurativa Severity Score System; LSM, least squares mean; MMRM, mixed model for repeated measures; PBO, placebo; SLK, sonelokimab.

Figure 2. Percent proportion of patients in each IHS4 severity grade



SLK 120mg, n	67	64	58
SLK 240mg, n	66	64	58

Data reported as observed.

IHS4, International Hidradenitis Suppurativa Severity Score System.

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Abstract N°: 3486

Foods and their causative role in acne: the adolescents' opinion. Results of an observational study

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Introduction & Objectives: The correlation between acne and foods is still a controversy. Not enough data are reported to clarify it. This study aims to demonstrate: 1) if the adolescents' answers regarding the relationship between acne and foods are correct, considering the data they are based on (published studies, lay media, personal experience), and 2) if their beliefs are reliable enough to drive behavioral and/or therapeutic choices.

Materials & Methods: A questionnaire has been submitted to 150 adolescents affected with mild or mild-to-moderate acne. The setting was "Acne Clinic", Operative Unit of Dermatology, Azienda Ospedaliera-University of Ferrara, Italy. The data have been collected over 6 months.

Results: Around 90% of the patients stated that, to their knowledge, foods are involved in acne worsening. Approximately 66% of the patients stated that their acne positively correlated with the consumption of some foods, but 96.2% of them admitted that they didn't get a sharp count of the lesions, and their evaluation was subjective and inaccurate.

Conclusion: The authors grew up the suspect that the patients' idea about the negative influencing role of foods in acne evolution is over-estimated and unreliable because the adolescents' self-analysis is based on an imprecise methodology. The avoidance of specific food(s) should be limited to cases where the causative role is demonstrated and not considered indiscriminately to all acne patients.

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Abstract N°: 3489

Liquid Acne Patch: Evaluation of the Efficacy, Tolerance, and Appreciation of a Liquid Topical Skincare Serum for the Treatment of Acne Vulgaris and Associated Skin Concerns

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Introduction & Objectives:

Acne has been reported as one of the most common skin conditions, affecting approximately 85% of adolescents and often continuing into adulthood. While various treatment modalities exist, including topical creams, oral medications, and physical patches, each approach presents its own set of challenges and limitations. In response to the need for innovative and versatile acne treatment options, we have developed a novel topical serum in liquid form containing 2% salicylic acid along with adjunctive ingredients to address skin concerns commonly associated with acne, including glycolic acid, gluconolactone, niacinamide, and licorice root extract. Inspired by the concept of acne physical patches, this serum is formulated to allow for similar highly localized, persistent treatment, yet can offer several distinct advantages, including flexibility of application area, size control, integration with other skincare and makeup products. All of these would help improve convenience and compliance for individuals managing acne.

The objective of this clinical study was to evaluate the efficacy, tolerance, and user appreciation of the acne liquid patch.

Materials & Methods:

This single center, 4-week, blinded, ethics board approved clinical study included 75 female and male subjects, aged 16-35 years old who presented with clinically determined mild-to-moderate acne (score 2 or 3 on the Investigator Global Assessment of Acne (IGA) scale, no cysts, 5-10 inflammatory lesions, ≥10 non-inflammatory lesions), and the presence of mild-to-moderate rough skin texture, uneven skin tone, lack of clarity, and post-inflammatory hyperpigmentation or erythema (PIH/PIE). Subjects were instructed to use the test product at least twice daily on affected areas. Efficacy evaluations included expert grading of the acne severity, number of inflammatory and non-inflammatory lesions, PIH/PIE, skin texture, tone, and clarity. Additionally, lesion height, diameter, and color (redness) of a tracked lesion were also evaluated. Clinical imaging using VISIA-CR, self-assessment questionnaires, and tolerance were also included.

Results:

Statistically significant improvements were found on acne lesion color (redness) 90 minutes post first application ($p<0.001$). By Day 1, acne lesion size (height and diameter) was reduced ($p<0.001$). After one week of use, statistically significant improvements were found in acne severity, appearance of pores, PIH/PIE, and texture ($p<0.001$). The improvements continued through week four and the product was well-tolerated by the test subjects.

Conclusion:

By combining the benefits of acne physical patches with the flexibility of a liquid formulation, this liquid patch

offers versatility and improved convenience, making it a valuable addition to acne management product offerings. Our clinical study demonstrated the effectiveness and gentleness of the liquid formulation in addressing active acne lesions and side effects associated with acne breakouts.

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Abstract N°: 3520

"From Mystery to Mastery: Neurological Sequelae of Minoxycline - Focus on Pseudotumor Cerebri in Dermatological Settings"

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Introduction & Objectives:

Pseudotumor cerebri, or idiopathic intracranial hypertension (IIH), features elevated intracranial pressure (ICP), presenting with headaches, papilledema, visual changes, or pulsatile tinnitus, despite normal neuroimaging and CSF studies. Commonly seen in young, overweight females aged 20 to 45, it can affect other demographics, notably obese reproductive-age women. Rarely, minocycline associates with elevated ICP, meeting IIH criteria. This study examines minocycline's neurological effects, especially its link with pseudotumor cerebri in dermatological contexts.

Materials & Methods:

This study reports a case of a 23-year-old female diagnosed with pseudotumor cerebri after three months of minocycline therapy for acne vulgaris. Clinical symptoms included visual obscurations, headaches, and pulsatile tinnitus. Diagnosis of minocycline-induced pseudotumor cerebri was confirmed after excluding other causes of elevated intracranial pressure. Evaluation comprised neurological assessment, fundus oculi examination revealing left-sided papilledema, and brain MRI showing no abnormalities.

The patient was hospitalized for approximately five days. Initial CSF pressure was 44 cm H2O. Minocycline was ceased, and systemic therapy with acetazolamide 500 mg twice daily and sodium bicarbonate 500 mg thrice daily was initiated. Clinical signs of pseudotumor cerebri improved, but after six weeks, a CSF leak developed, requiring readmission. Subsequent evaluations showed normal parameters, and discharge followed.

Unfortunately, a few days later, the patient presented to the emergency room due to acetazolamide-induced metabolic acidosis. The patient remains stable on acetazolamide 250 mg twice daily, with no permanent neurological damage observed.

Results:

Minocycline-induced intracranial pressure elevation resolves upon discontinuation, but severe cases with persistent symptoms or vision loss requiring surgery have been reported. Duration of minocycline treatment before pseudotumor cerebri diagnosis varies, with some patients experiencing symptoms shortly after initiation. Discontinuation usually resolves symptoms, but progressive worsening can occur post-medication cessation, emphasizing the need for vigilant monitoring and aggressive management to prevent vision loss. Minocycline's lipophilicity and blood-brain barrier penetration may contribute to its neurotoxic effects, although the mechanism remains unclear.

Conclusion:

In conclusion, while minocycline is commonly prescribed for acne vulgaris, its association with rare but severe neurological side effects, including pseudotumor cerebri, warrants consideration. First-line acne vulgaris treatment should prioritize safer alternatives, reserving minocycline for refractory cases. Given the potential for serious adverse events, including permanent vision loss, healthcare providers should vigilantly monitor patients on

minocycline therapy and promptly discontinue the drug if neurological symptoms arise. Further research is needed to elucidate the incidence and mechanisms of minocycline-induced pseudotumor cerebri, underscoring the importance of heightened awareness and vigilance among clinicians. Updating medication leaflets with warnings about these potential complications could enhance patient safety and informed decision-making.

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Abstract N°: 3616

Evaluation of the effects of 5% and 10% azelaic acid foam on sebum and acne lesions in Chinese acne patients

Jinghan Wang[1], Qian Yu[1], Yue Wang[1], Beilei Cai[1], Yi Pan[1]

[1]Sinomune clinic, dermatology, wuxi, China

Introduction & Objectives:

Azelaic acid is a commonly used topical medication for acne vulgaris. The penetration of the active ingredient into the skin and the release rate of the active ingredient are enhanced by the foam delivery system, as well as the reduction of skin damage and irritation compared to conventional formulations.The aim of this study is to evaluate sebum levels, comedone count and area and subjects self-assessment before, during and after application of 5% and 10% azelaic acid foam in Chinese acne patients.

Materials & Methods:

60 patients with facial acne were divided into two groups, one of which received 5% azelaic acid foam and the other 10% foam. Both groups applied the products to the entire face twice daily for 4 weeks. Subjects were evaluated before the test, on the third day, the seventh day, and the last day. The occasional sebum level was measured with the Sebumeter SM 815. The area of comedones was assessed using the VISIA-CR imaging system. The counting of comedone lesions is performed by a professional dermatologist.

Results:

After four weeks of treatment, sebum parameters of both groups showed a significant decrease from baseline. At the first follow-up (D3), a statistically significant difference ($p<0.05$) was observed in the amount of sebum in both groups, with a reduction of 16.43% and 14.08% in the 5% and 10% AZA foam groups, respectively, compared to baseline. The sebum parameter continued to decrease with the duration of treatment, and was 29.89% and 34.15% less than before, repectively. There was no statistical difference in sebum between the two groups at each measurement (Figure 1). Prior to treatment, the percentage of acne area in the 5% and 10% groups was 20.20% and 21.42%, respectively. The 5% foam group demonstrated a significant difference from baseline at the third follow-up, while the 10% foam group showed a significant decrease at the second follow-up. After four weeks of treatment, the percentage of acne area in the two groups decreased to 16.55% and 16.6%, respectively, which is 18.07% and 22.50% less than before (Figure 2).

A specialized dermatologist performed the assessment of the acne count. Before treatment, the average acne count for subjects in the 5% foam group was 6.93 and 6.17 in the 10% foam group, which was similar between the two groups. The count of acne lesions decreased progressively with the duration of treatment. At the first follow-up examination, the 5% foam group showed a significant decrease with a mean value of 6.57. The 10% foam group had a mean of 5.97 at the first follow-up, which was an improvement from baseline, but the difference was not statistically significant. At the end of treatment, the count of acne lesions in both groups decreased by 26.41% and 24.86%, respectively, which was a significant improvement from baseline. There was no statistically significant difference in the number of acne in either groups at any measurement (Table 1).

Conclusion:

This study demonstrated excellent efficacy of both concentrations of azelaic acid foam in reducing sebum

secretion and the number and area of comedone lesions. 10% azelaic acid foam is more suitable for acne patients with oily skin.

Figure 1

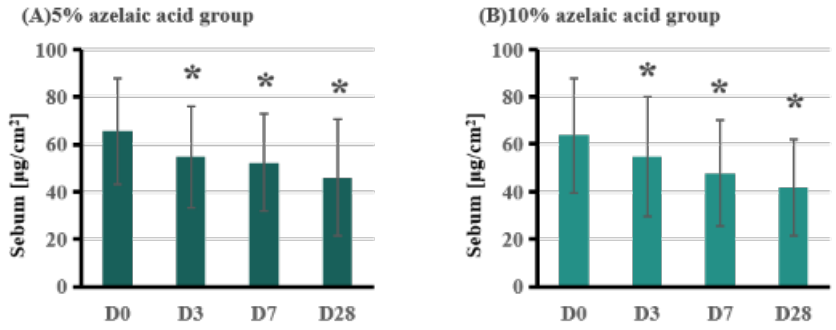

Figure 2

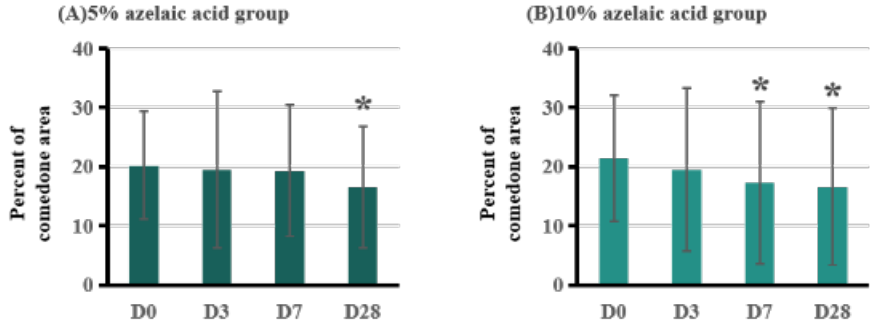

Table 1

	Before testing (D0)	D3	D7	D28
5% azelaic acid foam	6.17	5.97	5.43*	4.63*
Percentage reduction	/	3.24%	11.89%	24.86%
10% azelaic acid foam	6.93	6.57*	5.97*	5.10*
Percentage reduction	/	5.19%	13.85%	26.41%

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Abstract N°: 3640

Efficacy of fixed combination of Benzoyl Peroxide 4% and Niacinamide 4% cream in inflammatory rosacea: A prospective, assessor-blinded trial

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[1]Dermatology Clinic, Catania, [2]Dermatology Clinic, Catania, Italy

Introduction & Objectives:

We sought to assess the efficacy, local tolerability, and safety of a fixed combination of Benzoyl peroxide 4% and Niacinamide 4% cream vehiculated in polyvinyl alcohol and perfluoropolyether in subjects with mild/moderate inflammatory rosacea. The study was an 8-week prospective, assessor blinded trial with instrumental evaluation of erythema and inflammatory lesions.

Materials & Methods:

Sixteen subjects (6M/10F; mean age 44.9±13 range:31-67) with mild/moderate facial erythema/papulo-pustular rosacea with at least 5 inflammatory lesions were enrolled after their informed consent. The tested product was applied once daily in the evening for 8 weeks. The primary outcome was the evaluation of the Investigator Global Assessment (IGA) efficacy by a 7-point scale (IGA) (from 0 = clear to 6= severe lesions and erythema) at baseline and after 4 and 8 weeks. In 6 cases, secondary outcome was the reduction of erythema/inflammatory lesions assessed by VISIA digital photography equipped with the RBX system by a 4-point scale (from 0=no erythema/inflammatory lesions to 3=severe erythema/inflammatory lesions) at all time points.

Results:

Fifteen subjects (IGA score: 2.6±0.8; VISIA score: 2.1±0.4 for erythema and 8.5±6.2 for inflammatory lesions) concluded the study. At 4 and 8 weeks, IGA scores (1.8±0.9 and 1.3±0.9, respectively) showed a significant reduction from baseline (P=0.006; ANOVA), with was consistent with VISIA scores for inflammatory lesions (7.7±4.3 and 1.9±1.8, respectively) (P=0.0001; ANOVA test), corresponding to a 75% reduction in papule-pustules. Similar results were observed for erythema. VISIA scores matched with clinical observations showing objective improvement of papules/pustules and erythema. Only one subject dropped out due to mild skin irritation. Finally, the product was very well tolerated in the remaining treated subjects.

Conclusion:

In patients with mild/moderate inflammatory rosacea, an innovative topical formulation of benzoyl peroxide 4% in combination with niacinamide 4% vehiculated in polyvinyl alcohol and perfluoropolyether has been shown to be very effective and well tolerated in reducing erythema and inflammatory lesions, in improving IGA score as evidenced by clinical and VISIA evaluation and it was also well tolerated.

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Abstract N°: 3660

Evaluation of a cosmetic foam containing 15% azelaic acid for mild to moderate acne in Chinese patients

Jinghan Wang[1], Qian Yu[1], Yue Wang[1], Beilei Cai[1], Yi Pan[1]

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Introduction & Objectives:

Acne is a very common condition. Many studies have been conducted to compare acne patients of different ethnicities, although relatively few help management decisions for Chinese patients. We developed an azelaic acid foam specifically for this population. We aim to evaluation of the clinical efficacy and tolerance of a dermocosmetic product containing Bisabolol and 15% azelaic acid in Chinese acne patients.

Materials & Methods:

A single-center, open-label study was conducted in Shanghai, China, in a Chinese population with mild-to-moderate acne. The product was applied twice daily to the full face by 30 patients. The subjects were evaluated every 2 weeks for a total of 4 weeks. Efficacy was assessed by the Investigator's Global Assessment (IGA), counts of inflammatory acne lesions and investigator scores for symptoms of redness, itch severity and frequency,tolerance was assessed. The patients' self-assessment and patch test were also measured.

Results:

The IGA score reduced over the treatment duration showing it was a significant reduction at the second visit and further reduction at 4 weeks (Figure 1a). A similar trend was observed on the reduction of inflammatory papules showing a significant reduction in the number of papules at 4 weeks. The papules reduced by 77.88% with respect to the previous (Figure 1b). Investigator's assessment showed that the skin oiliness score was significantly reduced at 4 weeks, as well as a significant reduction in the symptom scores for redness and itching, with complete resolution of itching at 4 weeks (Figure 1c).

The 30 subjects in this study showed a significant increase in stratum corneum water content and a decrease in TEWL and sebum content over 4 weeks of use of the test product. TEWL showed a significant difference in week 2 and continued to decrease in week 4 (Table 1).

Changes were also noted in the self-assessment by the patients: intensity, frequency of skin tightness and overall skin health improved significantly after four-week treatment. Skin texture assessments for enlarged pores and greasiness improved by 20.35%. The number, extent, area, and size of comedone lesions improved compared to the baseline. (Table 2).

Conclusion:

The efficacy results after 4 weeks suggest a stable and continuous activity of the product in reducing the severity of acne, promoting the regression of the inflammatory papules, and improving barrier function.

Figure 1

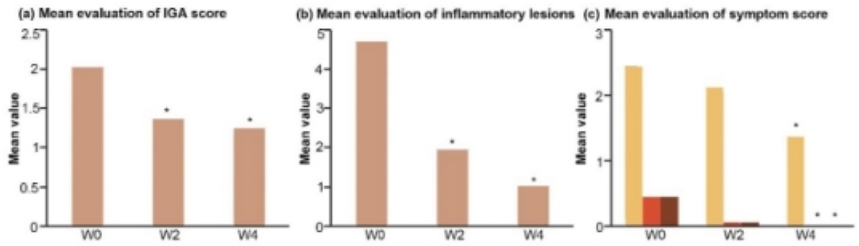

Table 1

	W0	W2	W4
skin hydration (%)	48.98±11.72	52.06±8.64	58.64±8.56*
TEWL(g/hm2)	27.07±7.73	23.27±6.28*	23.09±7.06*
casual sebum (μg/cm2)	148.44±51.38	140.44±49.24	118.59±44.81*

Table 2

	W0	W2	W4
Sensitivity	Skin tightness intensity	2.55	2.07□-18.90%↓□
	Skin tightness frequency	2.32	1.80□-22.50%↓□
	Skin turgor	0.35	0.20□-43.64%↓□
	Skin scale	0.45	0.33□-26.19%↓□
	Skin redness	0.42	0.33□-20.51%↓□
	Overall healthy	1.45	1.63□12.52%↑□
Skin texture	Coarse pore	1.94	1.73□-10.44%↓□
	Skin oiliness	1.90	1.53□-19.44%↓□
Comedones	Comedo number	1.74	1.50□-13.89%↓□
	Comedo area	1.45	1.33□-8.15%↓□
	Comedo extent	1.58	1.47□-7.21%↓□
	Comedo size	1.26	1.20□-4.62%↓□
	Overall	1.58	1.43□-9.32%↓□

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Abstract N°: 3684

Fibrosis quantification in hidradenitis suppurativa: Correlation of the quantitative shear wave elastography and the histopathological findings in sinus tracts

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition characterized by the presence of nodules, abscesses and sinus tracts (ST). Lesions may progress to fibrosis and scarring, impacting disease management and prognosis. Color doppler ultrasonography is considered a crucial part of the evaluation of patients with HS. However, the assessment of ST wall fibrosis is based on qualitative data and is operator dependent. Quantitative shear wave elastography (QSWE) is a non-invasive technique that measures tissue stiffness in kiloPascals (kPa). We have previously demonstrated significantly higher values in HS ST compared with healthy skin, but its correlation with histological findings has not yet been evaluated. Our aim was to analyze the correlation between QSWE and histological findings in HS ST in order to assess its validity in measuring ST fibrosis.

Materials & Methods: Descriptive cross-sectional study on those consecutive patients who attended the HS clinic at a tertiary hospital and were candidates for surgical excision of ST. Included patients underwent standardized cutaneous ultrasound equipped with specific software for QSWE on the ST to be treated and on contralateral healthy skin. The surgical procedure involved excision of the ST and healing by secondary intention and a 4mm punch biopsy from the contralateral area. Both samples were histologically analyzed by two experienced dermatopathologists. Fibrosis was subjectively graded into 0. absent, 1. mild; 2. moderate, 3. severe, based on findings from hematoxylin-eosin staining, and immunohistochemistry with alpha-actin. The Kruskal-Wallis test was used to correlate QSWE and histological results. Results are expressed in number (percentages) or as median (minimum-maximum). The study protocol was approved by our institution's ethical board.

Results: Fourteen patients were included, median age 31 (18-53) years. At the time of surgery, the Hurley classification was 2 in 12 (86) patients and 3 in 2 (14) patients, and the mean International Hidradenitis Suppurativa Severity Score was 10.5 (4-26). Seven (50) patients were receiving anti-inflammatory medical treatment at the time of surgery. ST were located in the inguinogenital area in 9 (64) patients, axillary in 2 (14), gluteal in 1 (7), and in the trunk or scalp in 2 (14) patients. Fibrosis was mild, moderate, and severe in 5 (36), 4 (28), and 5 (36) lesions, respectively. Fibrosis was absent in all cases of contralateral skin. Values (kPa) of QSWE of healthy skin and of the lesions with mild, moderate, and severe fibrosis were 5.5 (1-3-13.2), 20.5 (18.3-38.7), 30.55 (21.7-41.9), and 31.2 (21.1-35.1), respectively ($p<0.0001$).

Conclusion: Higher values on QSWE correlate with the histological finding of increased fibrosis. QSWE could represent a non-invasive test for quantitative evaluation of fibrosis in HS ST, laying the foundation for achieving the best therapeutic approach and monitoring of HS.

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Abstract N°: 3698

Safety and efficacy of product containing 20% of azelic acid enriched with anti-inflammatory complex in patients with acne and hyperpigmentations.

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Introduction & Objectives:

Azelaic acid is known to reduce the visibility of acne and exhibits enhanced action against post-inflammatory hyperpigmentation and melasma by reducing the intensity of discoloration and preventing the formation of new ones.

The aim of the study was to determine the effectiveness of product (no. 14017) containing 20% azelaic acid, enriched with antioxidant and inflammatory complex of polyphenols: magnolol and honokiol (MaHo) among individuals with acne and different types of skin discolorations in comparison with emulsion containing only 20% azelic acid.

Materials & Methods:

In vitro antioxidant activity (Radical Protection Factor - RPF) of the tested emulsion no. 14017 was determined using DPPH radical scavenging method.

Preliminary study in vivo: comparison of both emulsions was conducted in split-face study in a group of 9 volunteers (11-36 y. o.) who applied emulsion no. 14017 with azelic acid and MaHo complex on the right half of the face and emulsion only with azelic acid on the left side for 7 days. Skin instrumental evaluations of both sides were performed (melanin and erythema, sebum level, topography parameters, number of skin irregularities).

Group of 34 volunteers (12-50 y.o.) applied the product no. 14017 with azelaic acid and MAHO complex two times a day for 4 weeks. The change in the number of pores, porphyrins, spots, UV spots, irregularities (Visia) was assessed. Additionally, the dermatological assessment of acne severity on a 4-point scale on D0, D10 and D28 was performed.

At the end of each study volunteers completed a satisfaction questionnaire.

Results:

Emulsion exhibit antioxidant properties in vitro: DPPH assay value was 18,9 x 1017DPPH/g of cream.

In a split-face study, the product no. 14017 with azelaic acid and MAHO complex, soothed the skin better (8% reduction in erythema in objective measurements) indicating higher calming properties. However it showed similar sebo-regulating properties as well as smoothing out irregularities and reducing roughness to compare with product only with azelaic acid. According to respondents, emulsion with azelaic acid and MAHO complex was more effective in smoothing the skin surface in the area of acne lesions, in lightening discolorations and acne scars compared to product without MAHO.

Dermatological evaluation displayed acne reduction by 40% after 4 weeks of product no. 14017 usage. Moreover instrumental analysis showed significant reduction in the number of porphyrins and pores.

Among the group with melasma reduction in melanin by10%, decrease the number and size of spots was confirmed after 4 weeks of product application.

Conclusion:

Due to good soothing properties, the product with 20% of azelic acid enriched with MaHo can be recommended for the care of inflammed skin with mild and papulo-pustular acne as well as skin with melasma.

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Abstract N°: 3738

Efficacy, tolerability and lipidomic modification of new regimen with cleanser and corrective serum in women with acne prone skin

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Introduction & Objectives:

Acne-prone skin is a common condition in adult women affecting quality of life and self-esteem. This status is often associated with increased sebum production, visible pores and post-inflammatory hyperpigmentation. We investigated the efficacy and tolerability of a cosmetic combination regimen for face care (cleanser and serum) in terms of improvement of acne lesions, sebum production, mattifying effect, skin complexion evenness, pores occupied area, and composition of sebum (lipidomic analysis). The cleanser is composed by emollient, anti-irritation and anti-bacterial substances. The serum contains retinol, niacinamide and renewing compounds as lactic and glycolic acids.

Materials & Methods:

Twenty women with acne-prone mixed or oily-skin with or without sensitive skin showing significant acne imperfections (enlarged pores and hyperpigmentation) were enrolled after their informed consent in a prospective 42-day trial. Subjects were instructed to clean their faces with the cleanser and then rinse with water, twice a day, in the morning and evening. The application of the corrective serum on clean and dry skin in the morning and evening was indicated. Sebum content, skin radiance, skin profilometry, and evaluation of face area occupied by pores were evaluated at baseline and after 14, 28 and 42 days by means of instrumental analysis systems. Face lipidomic evaluation by skin stripping technique (ultra-performance liquid chromatography quadrupole time-of-flight mass spectrometry=ULPC-Q-TOF-MS) was performed at baseline and after 42 days. Self-assessment questionnaires at each visit were performed to collect subjects' opinion on efficacy and tolerability of the tested products.

Results:

Nineteen subjects completed the study. Both products were very well tolerated. Skin sebum content was significantly ($P<0.05$) reduced at each evaluation time points (-9.9% day 14, -19.4% day 28 and -23.7% day 42). The tested regimen significantly decreased the gloss parameter (mattifying effect) with a maximum reduction of 7.2%. Pores area measurement, evaluated by VISIA analysis, demonstrated a significant reduction at each check point evaluations in comparison with baseline. At day 42, the pores area was 10% ($P<0.001$) lower than baseline value. Acne lesions at baseline were 19±2 and were significantly reduced by 16% at day 28 and day 42 ($P<0.01$). Lipidomic analysis demonstrated this cosmetic face care regimen induced significant and positive effects in face sebum lipids composition. At the end of treatment period a significant increase of different ceramides and a significant decrease in fatty acid (FA) and oxidized-FA (OxFA) was observed. OxFA sebum content was reduced by 66%. The lipidomic analysis demonstrated that the tested products significantly increased the amount of triacyglicerols (TAG). Self-assessment questionnaires results demonstrated that 84% of the subjects reported a global clinical improvement. Ninety-five percent reported improvement in skin hyperpigmentation, pores reduction and reduction in skin imperfections.

Conclusion:

The tested face care regimen has demonstrated to be effective decreasing sebum production, reducing gloss parameter, area occupied by pores and reducing acne lesions in women with acne -prone skin. Interestingly this regimen has induced a relevant sebum composition modification, characterized by significant ceramides and triacylgliceroles increase and FA and OxFA decrease.

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Abstract N°: 3752

The prevalence of hidradenitis suppurativa in Sweden: An analysis from the Global Hidradenitis Suppurativa Atlas (GHiSA) initiative

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**ABSTRACT

The prevalence of hidradenitis suppurativa in Sweden: An analysis from the Global Hidradenitis Suppurativa Atlas (GHiSA) initiative**

Introduction & Objectives: Epidemiologic studies of hidradenitis suppurativa (HS) from Sweden are limited. Particularly, the prevalence of hidradenitis suppurativa in Sweden is unknown.

Materials & Methods:

This study was a part of the Global Hidradenitis Suppurativa Atlas (GHiSA) initiative. The study was multicentered and included apparently healthy adults accompanying a patient to the Department of either Endocrinology or Ophthalmology in two Swedish university hospitals. The study participants were invited to answer a validated screening questionnaire. Screen-positive and randomly selected screen-negative participants were clinically examined for HS by a dermatologist.

Results: 551 accompanying adults were approached of which 505 answered the questionnaire. The prevalence of HS in this sample was 0.99% (95% confidence interval [0.43%-2.30%]). There was a statistically significant difference in BMI between the HS- and control group, but not in relation to age or sex.

Conclusion: HS appears to be a common chronic disease in Sweden. Also, there is a strong association between overweight/obesity and HS.

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Abstract N°: 3817

TeleVersa (Telemedicine and acne inversa): Exploring the physical and the digital journey of Hidradenitis suppurativa patients in the German Healthcare System

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TeleVersa (Telemedicine and acne inversa): Exploring the physical and the digital journey of Hidradenitis suppurativa patients in the German Healthcare System

Introduction & Objectives:

Hidradenitis suppurativa (HS), also referred to as Acne inversa, is a chronic, inflammatory skin disorder with an estimated prevalence of approximately 0.5%. It is characterized by painful inflammation of the terminal hair follicles, accompanied by chronic, recurrent skin lesions, which can result in hypertrophic scarring. Besides skin lesion, HS is associated with various systemic comorbidities.

In Germany, the mean time from the onset of initial symptoms to HS diagnosis, is 10 ± 9.6 years, thus a long period of suffering with greatly reduced quality of life.

Early diagnosis is crucial to prevent irreversible tissue damage consisting of scar tissue and tunnel formation. Telemedicine tools such as “Ada Health” and “OnlineDoctor” are investigated in this project as real-world evidence approaches to reduce the time for diagnosis and improve standard-of-care.

The TeleVersa study intends to help characterize HS patients and better understand their individual patient journey through the healthcare system. Moreover, telemedicine tools will be investigated as aiding tools for minimizing delay in diagnosis and improve HS care.

Materials & Methods:

TeleVersa is a non-product driven multicenter prospective observational study. It involves the participation of 26 sites, including 6 hospitals and 20 dermatology centers. The study aims to recruit a total of 600 adult patients for a one-time visit, providing basic information of their disease. This includes 200 patients who have already been diagnosed with HS, 200 patients with suspected HS. Additionally, 200 patients with suspected HS that initially contact the participating physician via an online platform (OnlineDoctor) and will then be physically examined will be included (Study end ~ 12/2024).

Results:

At the time of the interim analysis, 209 patients were included (n=180 diagnosed with HS, n=29 suspected HS). 28.8 % of patients did not consult a doctor until 2 years after the onset of symptoms. Reasons given for this included “problem suppressed” (27.3 %), “shame” (22.9 %) and “self-treatment/home remedies” (26.3 %). The data obtained from the project showed that the genital area was one of the most frequently affected body regions in patients with a suspected diagnosis of HS which was confirmed (55.1 %) compared to patients with a HS diagnosis beforehand (38.9 %).

Conclusion:

HS patients usually have a long history of suffering before they are diagnosed. In this study, various causes for the delay in diagnosis were identified which could be related to the affected body regions or emotional conditions. In addition, TeleVersa evaluates telemedical diagnostic tools in order to offer patients an alternative way of disease diagnosis.

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Abstract N°: 3822

Tumor Necrosis Factor Antagonists in the Treatment of PASH Syndrome after Multiple Hidradenitis Surgeries

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Introduction & Objectives: PASH syndrome is a rare inflammatory disease characterized by pyoderma gangrenosum (PG), mild to severe facial acne, and hidradenitis suppurativa (HS). This syndrome has just a few reported cases available in the literature and validated treatment recommendation still do not exist. However, tumor necrosis factor (TNF)-alpha has been found to play an important role in the pathogenesis of these syndromes. Here, our objective is to relate a case of a patient previously treated with surgery for hidradenitis, who developed PASH syndrome, with a good response to adalimumab.

Materials & Methods: Female, 26, complained of painful and suppurative nodules in the axillary, inguinal and inframammary region for around 7 years. She refers that 3 years ago, several surgeries were performed to excise the lesions with improvement in the condition. 7 months ago, she reported the appearance of ulcerations in the same regions previously operated on above. She reported worsening of her condition for 1 week, with feverish periods and debilitating pain. The examination revealed nodules with drainage of purulent secretion, fistulae and ulcerations that were deep and with undermined violaceus edges, located in previously surgical scars. She also presented erythematous papules and pustules on the face and back. We performed 2 biopsies in the edge of the right axillar ulcer, that demonstrated epidermis with spongiosis and exocytosis of neutrophils, agranulosis and parakeratosis. In the dermis, there was lymphoplasmacytic infiltrate accompanied by numerous polymorphonuclear cells. The hypothesis of PASH syndrome was raised, given the coexisting condition of HS, acne, and PG. We chose to introduce azathioprine 50mg every 12 hours, maintaining an association with prednisone 80 mg/day. After 1 month, with no improvement in the condition, it was decided to introduce adalimumab and suspend azathioprine, and gradual weaning of the corticosteroid.**

Results: Despite PASH syndrome being increasingly diagnosed, there is a scarcity of studies regarding therapeutic approaches, especially in cases that are difficult to control and recurrent. There is evidence corroborating that the use of immunobiologicals, particularly TNF inhibitors, is effective when conventional immunosuppressants fail. Therefore, it was decided to combine adalimumab with corticosteroid therapy. After the introduction of anti-TNF, the patient's condition improved significantly, showing remission of HS lesions, re-epithelialization of PG ulcers, partial improvement of acne and successful weaning from corticosteroid therapy.

Conclusion: PASH Syndrome is difficult to control and treat, mainly due to the lack of studies with good evidence that address therapeutic guidelines. Our suggestion is when monotherapy or conventional immunosuppressive agents fail, combined therapy between these and anti-TNF inhibitors, such as adalimumab, be considered in this case.

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Abstract N°: 3855

Response to Upadacitinib in Hidradenitis suppurativa

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Title: Response to Upadacitinib in Hidradenitis Suppurativa

Introduction & Objectives:

Currently available therapeutic options for hidradenitis suppurativa (HS) are scarce and rely on the anti-inflammatory effects of doxycycline, corticosteroids, and more recently, biologic drugs. Among the latter, the only ones currently approved for HS are adalimumab (anti-TNF), secukinumab and bimekizumab (anti IL-17). However, there are drugs approved for other indications that have shown effectiveness in HS, such as upadacitinib.

Upadacitinib is a specific JAK-1 inhibitor, a pathway in which a wide variety of cytokines participate. Its use is approved in conditions such as atopic dermatitis (AD), inflammatory bowel disease, and rheumatoid arthritis. Currently, a clinical trial is underway in moderate to severe HS (NCT04430855).

The efficacy of upadacitinib in multiple comorbid pathologies opens up possibilities for therapeutic use, allowing for simultaneous management of inflammatory dermatoses and other systemic conditions. Besides, JAK inhibitors may be useful in the setting of eczematous-like reactions that appear during HS treatment with anti-TNF and anti-IL1. The primary objective is to evaluate effectiveness and safety of Upadacitinib in HS in patients which receive this treatment for any indication.

Materials & Methods:

Prospective multicentric observational study including patients from several Spanish hospitals undergoing treatment Upadacitinib for any indication, and who simultaneously present HS. Members of the Spanish Hidradenitis Suppurativa Group were contacted to inquire about cases meeting these characteristics.

Results:

Fourteen patients have been included to date. The results will be gathered and disseminated in poster format for the EADV congress.

Conclusion:

This study assesses the therapeutic potential of Upadacitinib in hidradenitis suppurativa, bringing new alternatives for its management in daily practice.

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Abstract N°: 3886

Surgical Management of Hidradenitis Suppurativa: single centre experience

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory disease of the pilosebaceous-apocrine unit characterized by the formation of abscesses, fistulas, and scars. Various studies support the role of surgery in this condition. Our primary objective is to assess whether surgery contributes to modifying the course of HS in our patients, reducing the number of outbreaks in the intervened or distant location. As secondary objectives, we analyzed the characteristics of the surgical interventions performed in our centre.

Materials & Methods: Retrospective study of patients with HS Hurley III, who underwent surgical wide excision, from February 2019 to February 2024 at our center. Demographic variables (age, sex, smoking, obesity, race), parameters related to the disease (age of onset, Hurley stage, location, clinical subtype, previous and current treatments), and those related to the intervention (type of surgery, location, reconstruction, post-surgical complications, recurrences) were studied. Comparative statistical analyses were performed using SPSS, employing the chi-square test.

Results: Seventy-two wide excision surgeries were performed on 66 patients (25 men, 65 women), with an average follow-up of 22.5 (2-57) months. The mean age at the onset of HS was 22.4 years, and the mean age at the time of intervention was 38.4 years. Forty-two interventions were conducted in the axillae, 17 in the groin/perineum, 3 in the inframammary region, 2 in the abdomen, 3 in various locations in the same surgical procedure, and 5 in other areas (face, areola, anterior thorax, and neck). 75% were closed directly, and the remaining 25% through secondary intention. The 61.1% of the lesions measured between 10 and 20cm, the 11.1% more than 20cm, and the 27.8% less than 10cm. 61.1% of patients had not received any prior biological treatment before the intervention. 50% had not received any medical treatment before the surgery. 83.3% of patients had no post-surgical complications. The most frequent complications included suture dehiscence (5 patients), fistula persistence (4), bleeding (2), and hypoesthesia (1). 77.8% did not require a new re-intervention in the same area during the follow-up period. No significant differences were found regarding the intervened area and percentage of recurrences or post-surgical complications; as well as the type of reconstruction and complications; nor prior biological treatment and recurrences.

Conclusion: Our results support the beneficial role of performing wide surgical excision in selected patients with severe HS, showing low recurrence and decreased number of outbreaks in the intervened location, even in patients without prior medical or biological treatment.

In our experience, surgical direct closure has proven to be a convenient option for the patient with few complications, thus it should be considered over other more complex reconstruction methods or second intention healing.

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Abstract N°: 3942

Long-term effectiveness and safety of secukinumab in patients with moderate to severe hidradenitis in real-world practice : a multicenter observational retrospective study

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Introduction & Objectives:

Secukinumab is a monoconal antibody targeting IL-17 A recently approved for the treatmet of moderate to severe hidradenitis suppurativa (HS). The aim of this study is to evaluate the effectiveness and safety of secukinumab in patientes with HS at weeks 16, 24, 36 and 48.

Materials & Methods:

A multicenter observational retrospective study including HS patients treated with secukinumab 300mg every 14 or 28 days was performed from 16 hospitals in Madrid (Spain). Treatment effectiveness was evaluated using the hidradenitis suppurativa clinical response 50 (HiSCR50) and the international hidradenitis suppurativa severity score system (IHS4) at weeks 16, 24, 36 and 48 weeks. Information about adverse events was also collected.

Results:

137 patients (59% female, 41% male) with moderate to severe HS were included for analysis, with a Hurley stage II (35%), or III (65%) and a mean IHS4 13,94 +/- 8,54. The mean age was 42,81 +/- 14,11 years-old and the body masss index was 31,09 +/- 6,68 kg/m^2 at onset of the secukinumab treatment. 39 patients were prescribed to 300mg every 28 days and 98 patients every 14 days. Taking into account only the patients who reached the different follow-up evaluated period, 80/137 (58%) reached HiSCR 50 and 9,3 +/-7,11 IHS4 at week 16, 37/69 (53,6%) reached HiSCR50 and 9,25 +/- 6,78 IHS4 at week 24, 22/47 (70,2%) reached HiSCR50 and 9 +/-7,20 IHS4 at week 36 and 29/39 (74,36%) reached HiSCR50 and 9,16 +/-7,22 IHS4 at week 48. 37 patients sttoped treatment with secukinumab, 7 due to adverse events, 24 due to primary failure, 2 due to secondary failure, 1 due to gestational desire and 3 due to loss of follo-up. Severe adverse events were not reported.

Adverse effects were described in 23 patients, including 6 cases of dermatitis-eczema, 5 of paradoxical psoriasis, 3 of candidiasis, 2 of fungal and bacterial skin infections, 2 of upper respiratory tract infections, 1 of cutaneous vasculitis, 1 of arthralgias, 1 of urinary infection, 1 of delayed hypersensitivity reaction and 1 of local reaction at the injection site.

The multivariate analysis demonstrated that a disease evolution time of less than 5 years and having previously surgical treatment, were potentially associated with a higher probability of HiSCR50 achievement

Conclusion:

Favorable long-term effectiveness and safety of secukinumab in the treatment of HS patients were observed. Disease evolution time of less than 5 years and having previously surgical treatment may be associated witha higher probability of achieving HiSCR50.

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Abstract N°: 3978

The Potential Role of Gut Microbiota in Acne Development: A Comparison of Trimethylamine N-oxide Levels

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Introduction & Objectives:

Acne affects around 9% of the global population, predominantly 85% of adolescents and young adults, leading to adverse psychological effects such as anxiety and depression. Cutibacterium acnes, a significant component of the skin microbiota, contributes to its inflammatory nature.

Recent research has highlighted the connection between diet and acne, with higher incidences observed in individuals consuming meat, dairy, and high-glycemic index foods. Trimethylamine N-oxide (TMAO), a bacterial metabolite associated with gut microbiota composition and inflammation, may exacerbate acne severity.

Evidence suggests that dysbiosis and dietary factors could influence acne development. This study seeks to examine serum TMAO levels in acne patients and age-matched healthy controls, aiming to elucidate their role in acne pathogenesis.

Materials & Methods:

The study involved 140 participants, with 70 acne patients and 70 healthy individuals. Exclusion criteria covered seborrheic dermatitis, polycystic ovary syndrome, or rosacea diagnoses. Demographic data and disease severity were noted, using the Global Acne Severity Index (GASI). Blood samples were taken to measure TMAO levels. Statistical analyses included SPSS 20.0, with $p<0.05$ as the significance threshold.

Results:

In this study, 140 participants were included: 70 in the patient group (46 female, 24 male) and 70 in the healthy control group (48 female, 22 male). Table 1 provides median age, BMI, and gender distribution for both groups. No statistically significant difference was found between the two groups.

A significant difference in TMAO levels was observed between them ($p<0.007$).

Table 1: Demographic Characteristics, TMAO Levels, and Acne Severity in Compared Groups			
Characteristics	**Case**	**Control**	**p**
Number of participants	70	70	
Age (year) (mean ± SD)	21.61 ± 3.77	20.76 ± 3.26	0.153
Gender [n (%)]			
Male	24 (34.3)	22 (31.4)	0.719
Female	46 (65.7)	48 (68.6)	
Body Mass Index(mean ± SD)	22.16 ± 4.43	22.02 ± 3.58	0.840
TMAO (mean ± SD)	16.74 ± 10.10	13.11 ± 4.28	**0.007**
GASI (mean ± SD) (min-max)	21.90 ± 8.65 (8-42)		
SD: standart deviation			
GASI: Global Acne Severity Index			

Disease severity in the patient group was assessed using the GASI, with 16 classified as severe, 25 as moderate, and 29 as mild (Table 2).

Table 2: Demographic Characteristics, TMAO Levels, and Acne Severity by Severity Groups				
Characteristics	**Severe**	**Moderate**	**Mild**	**p**
Number of participants	16	25	29	
TMAO (mean ± SD)	16.67 ± 10.89	13.28 ± 8.29	19.75 ± 10.45	0.062

A negative correlation between TMAO levels and GASI score was observed but not statistically significant (P=0.084, -0.208). Similarly, a weak negative correlation was seen between TMAO levels and BMI, but it was not statistically significant. Additionally, no difference in TMAO levels was found between females and males (p=0.950).

Conclusion:

Acne, particularly prevalent among adolescents and young adults, poses significant challenges both psychologically and in terms of treatment. Recently, interest has surged in the gut microbiota's potential role in acne development. Our study found higher levels of TMAO in acne patients compared to healthy individuals, suggesting a link between gut microbiota and acne.

Elevated TMAO levels are associated with changes in gut microbiota composition, notably an increase in Prevotella genus bacteria, aligned with diets rich in fats and animal-derived foods. This suggests a potential connection between acne and dietary patterns, though mechanisms remain unclear.

Additionally, TMAO may stimulate cytokine production, exacerbating inflammation and potentially worsening acne severity. This highlights the role of the gut microbiota and TMAO in acne pathogenesis.

Our findings suggest a significant role for the gut microbiota and TMAO in acne development, offering insights for novel treatment approaches. However, further research is needed to clarify mechanisms and explore dietary impacts on acne.

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Abstract N°: 3993

Saxophone penis, a forgotten entity in hidradenitis suppurativa

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Introduction: The term "saxophone penis"(SP) refers to a twisting deformation along the longitudinal axis of the penis, resulting in a conformation similar to a saxophone. It is caused by a chronic inflammation that promotes lymphatic fibrosis, compromising blood supply of the dorsal penis with connective tissue contraction and edema of its ventral aspect. Cases of SP in patients with primary lymphoedema, lymphogranuloma *venereum*, penile tuberculosis, filariasis and application of paraffin injections have been reported. Hidradenitis suppurativa (HS) is a chronic inflammatory condition which may result in fibrosis and deformation of affected areas, including the genital region. The prevalence of HS-associated genital lymphedema remains unknown. We report three cases of HS patients with a SP deformation.

Case report: Patient 1 is a 33-year-old man with a 15-year-old history of HS Hurley III. He presented with groin lesions and posterior progressive penoscrotal oedema, which developed to a SP deformity. After multiple surgical drainages and antibiotic courses, he was started on adalimumab (40mg/week), later suspended due to lack of response. Subsequently, genital reconstruction (penile degloving, scrotoplasty and infrapubic fat pad removal) was performed and the patient remains therapy free. Patient 2 is a 55-year-old man, Hurley II, who presented HS lesions on his axillary and genital regions - the latest with a clinical picture of a SP. After failing to improve under antibiotic regimens, he was treated with adalimumab (40mg/week) with great improvement in all areas except his genitals. Patient 3 is a 66-year-old man with a 41-year-old history of HS Hurley III. A SP deformity was present before treatment with adalimumab (40mg/week) and did not improve after 5 years of biologic therapy. All patients reported discomfort, hygiene issues and swelling. Patient 1 expressed problems with micturition and sexual dysfunction, the latter along with patient 3. After surgery, patient 1 was the only one whose penile deformity improved.

Discussion: The three patients achieved reasonable control of disease activity with adalimumab, however their SP deformations were refractory. In every case, adalimumab was introduced after the deformity was set, therefore we speculate that scar tissue and fibrosis respond poorly to the biologic agent, which is known to have the ability to control only active inflammatory lesions, but not scars or fibrotic tissue. To our knowledge, there is no effective medical treatment for saxophone penis. Aside from surgical reconstruction, which have proved successful both in the case of our patient and also in the literature, no effective medical treatment for SP has been reported.

Conclusion: SP may be a disabling consequence of HS, which does not respond to medical treatments such as adalimumab. Certain cases may be successfully treated with surgery. Early recognition and treatment are key to prevent these conditions.

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Abstract N°: 4068

demography and clinical features of hidradenitis suppurativa in Indian patients

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Introduction & Objectives: Despite global studies being in aplenty in respect to demography, clinical features and associations of hidradenitis suppurativa, insights specific to the Indian patients are limited. This cross-sectional study aimed at describing the clinicodemographic characteristics of Indian patients with HS and to study the frequency of metabolic syndrome in HS patients.

Materials & Methods: One hundred HS patients were evaluated for clinical characteristics, comorbidities, pain and suppuration scores, quality of life, and ophthalmological and dental abnormalities. Metabolic parameters, including anthropometry and blood markers, including fasting blood glucose, insulin, lipid profile were performed in all cases and 100 age- and gender-matched controls.

Results: The mean age of patients was 29.47 years, with a male predominance of 57%. HS predominantly affected combination of 2 or more classical sites (60%), with nodules as the primary lesion (95%). Quality of life was significantly impaired, with 49% experiencing a moderate impact as per DLQI. Metabolic derangements, represented by increased BMI, increased waist circumference, increased blood pressure, fasting blood sugar and fasting insulin were significantly more frequent in HS cases compared to controls ($p<0.001$). The frequency of metabolic syndrome in HS patients was 42%, significantly higher than controls (8%, $p<0.001$) with a relative risk of 5.25 (95% CI 2.68-10.58). No significant association was found between HS severity and metabolic syndrome components. Dental and ophthalmological abnormalities were observed in 35% and 21.7% of screened patients, respectively. Limitations of this study were cross sectional nature, no prospective assessment to determine evolution with time, and limited patient number are the limitations of the study.

Conclusion: A substantial association with metabolic syndrome and a considerable impact on the quality of life is seen in Indian patients with HS, emphasizing the need for metabolic screening and holistic management strategies.

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Abstract N°: 4099

Alopecia in Patients with Hidradenitis Suppurativa. Data from SCALPHS Project

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Introduction & Objectives: Hidradenitis Suppurativa (HS) is a chronic inflammatory skin disease affecting the apocrine glands distributed throughout the body. A less common location is the scalp. The classical tetrad of follicular occlusion has been described, associating HS with acne conglobata, pilonidal sinus, and dissecting cellulitis. Clinical practice in our specialized consultations shows that not only this type of alopecia is present. Therefore, we propose this pilot study, which aims to describe the most frequent scalp involvement in HS and the clinical characteristics of affected patients.

The objective of this study is to describe the clinical profile of HS patients with lesions on the scalp, identify the type of involvement, clinical and trichoscopic characteristics, and reflect on the most commonly used treatments in real clinical practice.

Materials & Methods: Cross-sectional study of patients seen in the HS specialized consultation at Reina Sofia Hospital in Córdoba from October 1, 2022, to October 1, 2023, with scalp involvement. The following variables were collected: 1) HS-related variables: demographics (age, sex, height, weight, BMI, family history), toxic habits, comorbidities (joint, digestive, psychiatric, and metabolic diseases), clinical features (Hurley stage, phenotype, affected locations, number of inflammatory lesions, pain, odor, PGA), therapeutic measures (previous systemic treatments, previous biologics, current treatments, surgical interventions); 2) Variables related to hair involvement: type, severity, location, previous surgeries, time relationship to HS onset, trichoscopy, treatment response, evolution, and impact on quality of life.

Results and conclusions: Patients included in our series will be presented, and findings will be discussed.

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Abstract N°: 4166

acneiform eruption to anti-tnf biosimilar for the treatment of inflammatory bowel disease

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Introduction & Objectives:

Adalimumab biosimilars have emerged as cost-effective alternatives for managing inflammatory bowel disease (IBD), mirroring the efficacy of the originator drug. However, adverse dermatological reactions, such as acneiform eruptions, are recognized complications. Herein, we present a case of an acneiform eruption in a patient switched to an adalimumab biosimilar for IBD and discuss the clinical management strategies.

Clinical Case:

A 38-year-old male with longstanding Crohn's disease developed severe acneiform eruptions on his face, chest, and back upon transitioning to an adalimumab biosimilar. Despite a trial of doxycycline, the lesions persisted, prompting initiation of isotretinoin and prednisolone. Remarkable improvement was noted within four weeks, with regression of erythematous papules and pustules, and resolution of pruritus and pain. Maintenance therapy with isotretinoin led to sustained remission of the eruptions, allowing continuation of IBD treatment with the adalimumab biosimilar.

Conclusion:

Acneiform eruptions associated with adalimumab biosimilars reflect the immunomodulatory effects of tumor necrosis factor-alpha (TNF-α) inhibition. Failure to respond to antibiotics suggests a primarily non-infectious etiology. Isotretinoin, a retinoid derivative, targets multiple pathogenic factors in acneiform eruptions and can be effective in recalcitrant cases. Concurrent prednisolone mitigates inflammation, providing rapid symptomatic relief. The successful management of our case underscores the importance of a multidisciplinary approach, integrating dermatological and gastroenterological expertise. Monitoring for relapse upon discontinuation of isotretinoin is advised to guide long-term management decisions.

Adalimumab biosimilars can precipitate acneiform eruptions in patients with IBD, necessitating prompt recognition and intervention. Isotretinoin, in combination with corticosteroids, represents a viable therapeutic option for refractory cases, facilitating the continuation of biologic therapy. Close collaboration between dermatologists and gastroenterologists is pivotal in optimizing treatment outcomes and patient quality of life. Further research is warranted to elucidate the mechanistic underpinnings and risk factors associated with dermatological adverse effects of TNF-α inhibitors and their biosimilars.

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Abstract N°: 4233

Practices and Attitudes of Community Pharmacists Regarding the Management of Acne in the Northern Region of Morocco .

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Introduction & Objectives:

Acne is an inflammatory dermatosis of the pilosebaceous follicle that can affect all ages. According to recent epidemiological data, it is classified as the eighth most common disease. The management of this condition is shared among the physician, pharmacist, and the patient themselves. Pharmacists and their teams can advise and provide appropriate dermo-cosmetics to the patient, accompany them with hygienic-dietary advice, and refer them to a dermatologist if necessary. This work aims to assess the knowledge, attitudes, and practices of community pharmacists regarding the management of acne in the Tangier region of Morocco.

The objective of this study was to evaluate the knowledge, attitudes, and practices of community pharmacists regarding the management of acne in the main regions of the Kingdom.

Materials & Methods:

We conducted a cross-sectional study over a period of 6 months, between February and August 2023, in the Tanger region. All community pharmacists and their staff who completed the entire questionnaire were included in this study. Data collection was conducted using a Google Forms questionnaire comprising several sections, analyzing sociodemographic and anamnestic data, as well as data on pharmacist conduct.

Results:

In total, 160 pharmacists responded to our questionnaire. The number of people seeking pharmacists for acne management is higher in rural areas (50 acne patients per week compared to 10 patients in urban areas). The majority of pharmacists prescribe dermo-cosmetics, local treatment, or oral antibiotics for acne. We also found that 46.9% of pharmacists recommended isotretinoin without medical advice, and 23% recommended cyclines for children under 8 years old. Regarding the types of acne treated in pharmacies, 69.1% of pharmacists even treated mixed acne, 50.1% treated inflammatory acne, and 40.3% treated retentive acne. The types of acne managed by pharmacists and their teams are mild forms (85.1%). In these forms, the most commonly used therapeutic approach was the prescription of local anti-acne agents (76.3%), while in moderate and severe forms, the majority of pharmacists and their teams referred their patients to a specialist (66.2% and 96.2%, respectively).

Conclusion:

In light of this study, it is concluded that awareness campaigns, continuous training, and control of the practices of community pharmacists and pharmacy assistants have great importance and help reduce the teratogenic effect, antibiotic resistance, and improper use of certain molecules.

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Abstract N°: 4252

familial hidradenitis suppurativa on a 4 year old girl and her 29 year old mother :a case report

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a recurrent inflammatory disease that affects intertriginous regions and is characterized by the presence of painful nodules, abscesses, and sinus tracts. Left untreated, HS leads to hypertrophic fibrotic scars and dermal contractures. Hs is rarely reported in the pediatric population, with the onset generally happening after puberty between 20 and 24 years old. Prepubertal onset before the age of 11 occurs in 2% of patients with HS. Early onset of HS is also related to a positive family history, with a predominance of girls. The youngest patient ever diagnosed with HS was 5 years old. Our aim is to dictate the significance of early management and diagnosis by presenting the case of a mother and her four-year-old daughter, who have both been diagnosed in our department and are currently being treated successfully, despite the challenges that arise from the young daughter's age.

Materials & Methods: We are presenting the case of a mother and her four-year-old daughter who were diagnosed with HS in our department. The mother, being an old patient in our department, sought help after her daughter presented perianal and gluteal lesions: inflammatory and non-inflammatory nodules, folliculitis, and papules.

Results: Our department succeeded in managing the little girl's condition, although we were really challenged due to the limitations in therapy that resulted from her young age. The mother, currently treated with a biologic agent, has been steady for the past 3 years.

Conclusion: HS is a disease that rarely affects children, but its early onset is related to a positive family history. A widespread form is also related to positive family history. Having that in mind, we understand that it can cause great distress to families when two or more members are affected by HS. Further study and research are essential to provide guidelines for the management of HS in the pediatric population and help understand the nature of its heredity.

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Abstract N°: 4292

A comparison of the psychological impacts and clinical characteristics of acne in adolescent and adult females

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Introduction & Objectives: Acne vulgaris, an inflammatory chronic skin disorder of the pilosebaceous follicles, is considered to affect primarily adolescents; however, recent epidemiological studies showed that acne prevalence increased in adults over 25 years, especially in women. The aim of this study is to analyze the differences between women and adolescent female acne from both an epidemiological and psychosocial perspective.

Materials & Methods: The study was conducted at the Ordu University Education and Research Hospital between May 2023 and March 2024. Demographic information, acne type,acne lesion type, body part affected, and factors contributing to acne were recorded. Acne severity was evaluated with global acne grading system. Patients were requested to complete the acne quality of life scale and the hospital anxiety and depression scales to evaluate the effect of acne on individuals.

Results: The study population consisted of two groups, each with 126 participants. The female patients aged 18–24 comprised the young acne group, and the female patients over 25 years of age comprised the adult acne group. The most frequently encountered acne type is persistent acne for young age groups and late-onset acne for adult group ($p = 0.044$). The ratio of patients with a positive history of adolescent acne was higher in the young acne group than in the adult acne group ($p = 0.005$). Forehead, cheek, nose, and chin involvement was more common in the young age group than in the adult acne group ($p = 0,002$), ($p = 0,006$), ($p = 0,000$), and ($p = 0,017$), respectively. The types and prevelance of elemantary lesions of acne was similar in both groups. The presence of erythema ($p = 0.000$) and acne scars (atrophic, hypertrophic, or icepick) ($p = 0.010$) was higher in young acne patients than in the adult group. The mean global acne grading system score was higher in the young acne group than adult acne ($p<0,001$). The proportion of patients with mild acne severity was significantly higher in adult acne, whereas the proportion of patients with moderate and severe acne was higher in the young female acne group ($p = 0.000$). Mild acne scars were more common in adult women, and moderate and severe acne scars were more common in young females ($p = 0.000$). The acne quality of life scale and the hospital anxiety and depression scales were similar in young and adult females.

Conclusion: In this study, the cheek, forehead, and chin were the most commonly affected body parts of adult women with acne, contrary to previous knowledge about the predominance of mandibular and chin area involvement. We found that acne severity and acne scar severity were higher in adolescent females than in women. Quality of life, depression, and anxiety scores were found to be similar between these groups, in contrast to previous studies that found that although their acne was less severe, adult women are more prone to the psychological effects of acne than female adolescents.

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Abstract N°: 4322

Challenges and Benefits of Isotretinoin for Acne Treatment in Transgender People – systematic review

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Introduction & Objectives: The treatment of acne in transgender individuals presents unique challenges and opportunities. This review aims to comprehensively explore the use of isotretinoin, a powerful acne treatment, within this population, focusing on its challenges and benefits, and considering the hormonal transitions that are often a part of transgender healthcare.

Materials & Methods: A thorough literature search was conducted across several databases including PubMed, Scopus, and Web of Science, from inception until April 2024, focusing on the studies that discuss the treatment of acne with isotretinoin in transgender patients. Original studies, case series and case reports were included in the systematic review, with an emphasis on outcomes related to the interaction between isotretinoin and hormone therapy.**

Results: This systematic review indicates that isotretinoin is effective in managing severe acne in transgender individuals, similar to its use in cisgender populations. However, transgender patients may experience unique side effects, particularly related to the concurrent use of hormonal treatments such as testosterone, which can exacerbate acne. Adjustments in isotretinoin dosing and careful monitoring of liver function tests and lipid profiles are recommended. Furthermore, psychological aspects of acne and its treatment in the transgender population require sensitive handling to ensure compliance and effectiveness.

Conclusion: Isotretinoin remains a valuable tool in the dermatological arsenal for treating severe acne in transgender individuals, provided that treatment protocols consider hormonal influences and the specific needs of this population. Dermatologists should be aware of the complex interplay between hormonal therapies and isotretinoin's mechanism of action, ensuring a holistic and individualized approach to acne treatment in transgender patients. Future research should aim to fill the current knowledge gaps regarding long-term outcomes and optimal management strategies in this unique cohort.

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Abstract N°: 4412

Interest of a dermo-cosmetic product containing Myrtus communis and Celastrol enriched plant cell culture (CEE) extracts in the management of mild to moderate inflammatory facial acne: a real-world, prospective, observational and multicentric study

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Introduction & Objectives:

Acne vulgaris (acne) is a chronic inflammatory disease prevalent among adolescents and adults with significant psychological effects. In this study we evaluate the perceived efficacy, tolerance and the effect on quality of life of a dermo-cosmetic cream containing Myrtus communis and CEE extracts used alone or in association with topical and oral acne treatments.

Materials & Methods:

This international, real-world, prospective, multicentric and observational study was conducted in 10 countries located in the Americas, Europe, and Africa. Adolescents and adults, with mild to moderate inflammatory acne and with all phototypes were included in the study. Subjects were followed for 3 months, and the study product was used alone or in combination with acne treatments according to usual practice of dermatologists.

Efficacy was evaluated using the GEA scale (from Clear – No lesion (0) to Very severe (5)). Tolerance was evaluated with a 4-points scale from "Bad tolerance" (0) to "Very good tolerance" (3). The Cardiff Acne Disability Index (CADI) was used to assess the impact of the subject's skin condition on their quality of life through self-evaluation. Change from baseline was analyzed for each endpoint.

Results:

A total of 1133 subjects, aged 12-61 years old (with a mean age of 24 years old) and representing all phototypes were enrolled. The main therapeutic scheme was the dermo-cosmetic cream associated with treatments for moderate acne (60%) and for mild acne severity, patient received mostly the dermo-cosmetic product alone (40%).

After 3 months of use and whatever the therapeutic scheme, a significant improvement of acne severity was observed. Use of the study product in monotherapy for mild acne led to a significant improvement with an almost clear skin observed after 3 months compared to baseline (p-value<0.001, -50% change). Combination therapy resulted in a significant improvement from moderate to mild acne in the same timeframe (p-value<0.001, -44% change).

The CADI score also decreased significantly in the course of the study (-67% and -57% for monotherapy and combination therapy, respectively; p-value˂0.001 for both groups)

To finish, dermatologists mostly rated tolerance as good to very good for both therapeutic scheme (99% for monotherapy and 98% for combination therapy).

Conclusion:

This Myrtus communis and Celastrol enriched plant cell culture extracts-based cream is an effective and well

tolerated option in monotherapy for mild acne, and in association with topical and oral treatments for moderate acne.

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Abstract N°: 4424

Role of Cutibacterium acnes-derived extracellular vesicles in acne: modulation by Myrtacine and Celastrol

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Introduction & Objectives:

Acne is a chronic inflammatory skin condition that involves the sebaceous gland, follicular keratinocytes, skin microbiome, and innate immunity. *Cutibacterium acnes* (*C. acnes*), a skin commensal bacterium, is classified into 6 phylotypes (IA1, IA2, IB, IC, II, and III), of which an overgrowth of phylotype IAI as compared to the other phylotypes is found in acne lesions. Studies have also shown that *C. acnes* secretes Extracellular Vesicles (EVs) which participate in the inflammatory activity in skin models.

Myrtus communis (Myrtacine®) plant extract is an ingredient targeting the biofilm of *C. acnes*, and Celastrol-enriched plant cell culture (CEE) extract has general and Th17-mediated anti-inflammatory activity which has been demonstrated *in vitro*.

In this study, we aimed to uncover the effects of Myrtacine® and Celastrol alone or in combination on the cutaneous innate immunity using human skin models exposed to EVs secreted by *C. acnes* from acne lesions or normal skin.

Materials & Methods:

EVs were isolated from two different strains of phylotype IA1 *C. acnes*: T5 (normal human skin) and A47 (inflammatory acne lesion). The EVs were used both on human keratinocytes alone (HaCaT cell line) and skin explants from abdominoplasty. Preventive treatment was comprised of addition of Myrtacine alone, Celastrol alone, or a combination of both to the cell lines or explants 24H prior to incubation with EVs for another 24H. In curative treatment, cells or explants were incubated with EVs for 24H prior to the addition of the reagents alone or in combination for another 24H. Subsequently, quantitative PCR (qPCR), ELISA, and immunohistochemistry were performed for human β-defensin 2 (hBD2), interleukin (IL)-6, IL-8, IL-17α, and IL-36γ.

Results:

We found that the EVs obtained from A47 induced a significant and strong increase in all of the pro-inflammatory and anti-microbial peptide markers at both transcript and protein levels. EVs derived from *C. acnes* T5 from normal human skin induced a significantly less increase of the expression of immune markers than with A47 EVs. Secondly, we found that preventive and curative treatments with a combination of Myrtacine and Celastrol significantly reduced the expression of hBD2 induced by A47 EVs, but not by T5 EVs. Preventive and curative treatments with Myrtacine or Celastrol alone, or the combination of both reagents decreased IL-8 expression induced by A47 and T5 EVs. Further, A47 EV-induced IL-6 and IL-36ɣ expression was significantly reduced by

preventive treatment with a combination of Myrtacine and Celastrol.

Conclusion:

Our results show that only *C. acnes* EVs from acne lesions significantly activate innate immunity of the skin confirming their role in the development of inflammatory acne lesions. Further, preventive and curative treatments with a combination of Myrtacine and Celastrol are able to significantly decrease the expression of immune markers, thus they may have anti-inflammatory properties, which may have implications in therapeutic use for acne.

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Abstract N°: 4457

Semaglutide for weight loss in obese patients as an adjunctive treatment for hidradenitis suppurativa: its impact on disease control and quality of life

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Introduction & Objectives:

Hidradenitis suppurativa (HS) has a significant impact on quality of life and mortality. Associations include smoking, insulin resistance and metabolic syndrome. The link between HS and obesity is well established. Semaglutide is a glucagon-like peptide (GLP)-1RA that enhances insulin secretion, reduces glucagon secretion, suppresses appetite and causes weight loss. It is licensed for diabetes and obesity (BMI>30kg/m2) and in patients with a BMI >27 kg/m2 and a complication of high BMI. We report the impact of semaglutide on disease control and quality of life in 30 obese patients in a HS clinic.

Materials & Methods:

Hurley stage, co-morbidities and other HS treatments were recorded. BMI, weight, dermatology life quality index (DLQI) value, flare frequency, and pain assessment pre and post commencing semaglutide were included. C - reactive protein (CRP), glucose, haemoglobin A1c (HbA1c), were collected. A mixed-effects analysis was undertaken to assess for significance prior to and following commencement of semaglutide with significance defined as $P<0.05$.

Results:

Data from 30 patients between June 2020 and March 2023 was analysed retrospectively. 27 were female and 3 male and with a mean age of 42 (SD=8.9). The majority (n=15) were Hurley stage II, then stage III (n=11) and stage I (n=4). All patients were prescribed concomittant HS treatments and ten were on treatment combinations. The mean duration of all current HS treatments prior to commencement of semaglutide was 14.9 months (SD=21.3). Specifically, the mean duration of treatment for adalimumab was 9.5 months (SD=9.6), infliximab 17.5 months (SD=23.3) and brodalumab 10 months (SD=13.4). Eight patients had a diagnosis of depression. Two had diabetes, two had inflammatory bowel disease and two had polycystic ovarian syndrome. Out of 30 patients, 12 were current smokers, 10 were ex-smokers and 8 never smoked. The mean duration of semaglutide treatment was 8.2 months (SD=7.2). The mean dose was 0.8mg once weekly (SD=0.4). The mean BMI fell from 43.1 (SD=7.6) to 41.5 (SD=8.6) (95% confidence interval (CI) -2.041 to 10.4, P=0.4818). The mean weight fell from 117.7kg (SD= 21.4) to 111.6kg (SD= 23.2) (95% CI 2.880 to 9.293, $P<0.0001$). One third (33.33%) of patients lost greater or equal to 10kg during this period. Following commencement of semaglutide the mean frequency of patient-reported flares decreased from once every 8.5 (SD=12.9) weeks to once every 12 weeks (SD= 13.1), with mean DLQI reduction from 13/30 (SD=8.7) to 9/30 (SD=8.2) (95% CI 1.696 to10.68, P=0.0014). One third (33.33%) had a DLQI reduction of four points or more, equalling or surpassing the minimal clinically important difference for this index. Improvements in mean serological values such as a reduction of HbA1C from 39.3 (SD=9.7) to 36.6 (SD=3.4) (95% CI 0.2234 to 9.696, P=0.0335) were noted. Average CRP decreased from 7.8 (SD=6.2) to 6.9 (SD=5.2) (95% CI -2.142 to 5.110, P=0.9503).

Conclusion:

This retrospective data suggests the addition of semaglutide to standard HS therapies results in improvement in quality of life and less HS flares. This is the first study to report the use of semaglutide in HS. It is important to note that the mean dose of semaglutide used was 0.8mg weekly compared to the licenced dose for weight loss which is 2.4mg weekly. This was primarily due to lack of availability. Placebo-controlled randomised trials should be done to assess the efficacy of semaglutide in this debilitating condition.

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Abstract N°: 4496

A Cross-Sectional Study On The Factors Associated With Social Media Use In Patients With Acne Vulgaris In The Philippines

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Introduction & Objectives:

Acne vulgaris, a prevalent dermatological condition, has sustained significant interest over time, permeating social media platforms as a prominent subject of discourse. This study aim to determine the association between acne severity, socioeconomic determinants, and the utilization of social media channels for information acquisition and self-medication practices within the context of acne vulgaris.

Materials & Methods:

A cross-sectional study was conducted among 120 patients diagnosed with acne vulgaris aged 18–50 years-old who sought care through both teledermatology and face-to-face consultations at Rizal Medical Center. Patients completed a validated self-administered questionnaire consisting of demographics, information sources, social media habits, consult triggers, and self-medication practices. Acne severity was assessed using the Global Acne Grading System by a dermatologist.

Results:

A total of 120 newly diagnosed patients with acne vulgaris were included in the study, with a mean age of 23.25 years, with a female predominance, household average monthly income less than PhP 10,957, with mild-moderate acne severity. Majority of the participants used social media to look for treatment options and to gain more knowledge about the disease. The most used platforms were Youtube, Facebook and Tiktok. Short videos were viewed more often and content from Dermatologists were preferred. Most commonly tried products were topical treatments. There was a significant association between the use of social media with age and educational attainment. Furthermore, a significant association between self-medication practices and average household monthly. No association was seen between acne severity, social media use and self-medication practices.

Conclusion:

In summary, our study reveals a correlation between social media usage and demographic factors among acne vulgaris patients. Specifically, younger individuals (18-25 years) and those with lower educational levels showed higher engagement with acne-related content online. Moreover, self-medication practices were notably linked to lower household incomes. However, demographic factors did not affect the verification of content credibility or consultation with dermatologists. These findings underscore the importance of tailored interventions to ensure accurate information dissemination and promote responsible self-care practices in acne management through social media.

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Abstract N°: 4575

Successful management of recalcitrant hidradenitis suppurativa with tildrakizumab

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a difficult-to-treat chronic inflammatory disease of the hair follicle characterized by painful nodules, abscesses, comedones, and scarring of surrounding skin. Although its exact pathogenesis is not well understood, evidence suggests involvement of the interleukin-23 (IL-23)/T-cell helper 17 pathway, as in other autoimmune diseases, including psoriasis, psoriatic arthritis, and pyoderma gangrenosum. Tildrakizumab is a selective IL-23 inhibitor targeting this pathway which is approved for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy or phototherapy. We describe the treatment response to tildrakizumab in patients who presented with hidradenitis suppurativa and comorbid psoriasis.

Materials & Methods:

We present a case series of 5 patients with Hurley stage I/II HS and comorbid psoriasis who failed conventional medical and surgical treatment modalities, including subcutaneous adalimumab and excision/deroofing. Treatment with tildrakizumab 100 mg was subsequently commenced at Weeks 0 and 4, then every 12 weeks thereafter.

Results:

Treatment with tildrakizumab appeared to improve psoriasis symptoms and reduce the frequency and persistence of HS lesions in all 5 patients. Despite the initial positive clinical response, HS recurred in these patients after an interval of approximately 2 months (with discussion of tildrakizumab dose interval reduction; implemented for 2 of 5 patients).

Conclusion:

Our case series demonstrates treatment efficacy and sustainability with tildrakizumab for recalcitrant HS. A shorter dose interval than that of its use for psoriasis may be indicated where greater clinical response is required.

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Abstract N°: 4622

Patient experience of pain in hidradenitis suppurativa: qualitative research on location, burden, impacts and management

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory disease characterized by recurrent, painful tunnels and abscesses predominantly located in intertriginous sites. This qualitative research aims to describe the severity, location, impact, and management of pain in patients with HS.

Materials & Methods:

Semi-structured qualitative interviews were conducted (November 2023-February 2024) among US adults (n=18) and adolescents (n=4) with confirmed diagnosis of HS Hurley Stage II or III. An International Review Board approved the protocol and discussion guide.

Results:

The mean age was 36 years for adults and 15 years for adolescents. The sample was diverse by including both female and male, 9 African American and 9 Hispanic patients. Education and employment status also varied across the sample. Concept saturation of symptoms and impacts was achieved. Pain was ranked as the most burdensome symptom by 13 of the 22 participants and within the top 3-5 most burdensome for 16 out of 22. Participants rated pain, at its worst during a flare, as 9.6 (mean, SD 0.9) on a 0 to 10 HS pain numeric rating scale (NRS) and 4.9 (SD 1.9) when they were not experiencing a flare. Pain was usually associated with the location of lesions, but 3 participants also mentioned body aches. Ten participants reported pain in the groin, thighs, and private area, while 17 participants noted pain in the armpits, arms, underarms, buttocks, belly, breast area, waist, sides of the body, and chest. Three participants noted that the severity of their pain varied according to the location of a flare. Most participants stated that pain varied from a few minutes to throughout the day and 2 participants noted that it was constant. Seventeen participants linked pain to physical impacts, including difficulty moving the upper body (n=8) and torso/lower body (n=6) and difficulty walking (n=5). Pain also interfered with daily life activities, such as work, ability to focus, sitting on the toilet, driving, grooming, lifting heavy things, or finding a comfortable position to sleep. Eleven participants connected pain to emotional impact such as feeling unmotivated, annoyed, or sad/depressed. Prescribed medications (opioids, corticosteroids mainly) and over the counter medications (Tylenol, ibuprofen, mainly) were used by 5 and 17 of the 22 participants, respectively. All 22 participants used non-pharmacological methods such as hot or warm compresses, covering the areas to reduce friction and mindfulness exercises to relieve pain.

Conclusion:

HS pain is mainly associated with lesions and its severity raises to nearly worst imaginable pain during flares. It severely limits patients in their daily activities and affects their emotional well-being. Despite the enormous burden of pain, patients have limited pharmacological options and mostly rely on alternative methods and adaptative behaviors. Durable and stable pain relief is an important unmet need in the development of new drugs for HS.

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Abstract N°: 4630

Patient experience of hidradenitis suppurativa: Ranking the burden of symptoms and impacts

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Introduction & Objectives:

Symptoms of hidradenitis suppurativa (HS) negatively impact patients' health-related quality of life (HRQoL). The aim of this qualitative interview study with patients was to update a literature-based conceptual model (CM) and rank the burdensomeness of symptoms and the impacts experienced by patients with HS.

Materials & Methods:

Semi-structured qualitative interviews were conducted (November 2023-February 2024) among US adults (n=18) and adolescents (n=4) with confirmed diagnosis of HS Hurley Stage II or III. An International Review Board approved the protocol and discussion guide.

Results:

The mean age of adult and adolescent groups was 36 and 15 years, respectively. The sample was diverse by including both female and male, 9 African American and 9 Hispanic patients. Education and employment status also varied across the sample. All concepts listed on the preliminary conceptual model were confirmed by patients with new concepts added. Concept saturation of symptoms and impacts was achieved. Pain was reported most frequently as most burdensome symptom (13/22), followed by drainage (5/22), fatigue (3/22) and swelling (2/22). Odors, heat/burning, itch and sleep disturbances were most commonly reported among the 3-5 most burdensome symptoms (8, 7, 6, 6 per 22 participants, respectively). Regarding daily life impacts participants most frequently ranked challenges with intimacy 3/18 (adults only), emotional well-being (3/22), difficulty moving (3/22), and feeling powerless or hopeless (2/22) as most burdensome. Among the top 3-5 most burdensome impacts, participants most commonly reported difficulty with sports/exercise (5/22), impact on social attendance (5/22), difficulties with self-care (4/22) and interpersonal difficulties (4/22), clothing limitations (3/22, due to possible drainage and to avoid irritation), impacts on holiday planning and traveling (3/22), and difficulties caring for children (3/22) . Several emotional wellbeing sub-concepts were ranked as 3-5 most bothersome, such as lack of motivation (3/22), low self-esteem (2/22), body image issues (2/22), embarrassment (1/22), feeling isolated (1/22) and feelings of shame (1/22).

Conclusion:

HS lesions are associated with high levels of pain, drainage and fatigue which interfere with patients usual activities and impose a high burden on patients' emotional well-being and quality of life. This qualitative research confirmed literature findings and provided a comprehensive account of patients' experiences and their ranking of the burdensomeness of symptoms and impacts. These findings may orient the development of new drugs in clinical trials.

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Abstract N°: 4645

Hidradenitis suppurativa community online across 7 countries converges on the need for disease awareness and effective treatment

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Introduction & Objectives:

Hidradenitis suppurativa (HS) affects approximately 1% of Western world population. Despite its prevalence, insight into the perspectives of patients with HS is limited. Online conversations involving these key stakeholders can provide valuable information regarding their real-world experience, journey, priorities and unmet needs.

Materials & Methods:

An observational social media listening search was conducted in 7 countries (US, UK, France, Germany, Italy, Spain and China). First, a search term syntax was developed containing disease and treatment keywords, HS hashtags, and public discourse exchange websites relevant to HS. A 12-month historical search (01 Dec 2022–01 Dec 2023) was conducted using the search term syntax to capture all HS-related conversation across publicly accessible social media and digital channels including forums, Twitter, blogs, Weibo, and Instagram. Artificial-intelligence-led data segmentation ('conversation clustering') and human-led coding were used to identify themes across the broader HS conversation. The data was manually sifted to isolate posts referencing the patient or caregiver experience for detailed analysis and before Natural language processing (NLP) was applied to analyze and measure the topics. Then, topics were explored manually to group into broader common themes. Human-led qualitative analysis and further manual trawling were performed to contextualize and validate the findings.

Results:

A total of 23 546 public posts went through NLP and sifted for qualitative analysis. Reporting a lack of awareness within healthcare system and general public, the HS online community primarily post to spread awareness about HS and educate using terms "disease" & "condition" used alongside hashtags such as #hswarrior and #hsawareness. Patients feel the need to shed light on the condition, and clarify it is not contagious. While focusing on patient experience, time consumed by HS (of which the specific topics 'years' and 'told' 35.2% and 10.7%, respectively) is the first topic discussed, then comes pain management (18.4%) and scarring (6.0%), these are associated with mobility limitations, mental health decline and burden on their loved ones. Treatment (8 NLP topics) are mainly discussed as ineffective and switch (14%), plus surgery as a treatment option that can be daunting (10%). All are associated with financial burden and untreated HS frequently resulted in physical and mental health decline. The latter impact is also associated with delays (4 NLP topics) to diagnosis which also elicits distrust in healthcare system.

Conclusion:

Writers of social media posts/blogs expressed concern regarding a lack of awareness about HS that comes as a barrier to diagnosis and management further adding to the burden of disease as delays and lack of effective treatment contribute to mental and physical decline. Increased widespread awareness of HS and need for effective treatments appear to be a demand of HS online community.

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Abstract N°: 4702

Comparative analysis of Socioeconomic Status in Hidradenitis Suppurativa and Psoriasis patients: a descriptive ecological study

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Introduction & Objectives:

Hidradenitis suppurativa (HS) has been significantly associated with a low socioeconomic status, similar to other chronic inflammatory skin diseases such as psoriasis. However, there are no published studies comparing both socioeconomic status. The objective is to describe if there are differences in socioeconomic status among the environments of patients with HS and those with psoriasis.

Materials & Methods:

Descriptive cross-sectional ecological study to define the sociodemographic characteristics of the populations in which patients with psoriasis and hidradenitis suppurativa (HS) reside, treated at the Dermatology Service of Hospital Universitario Virgen Macarena health area during the year 2023. We compared if there were differences between both groups. Among the study variables were the population rate over 64 years old, the foreign population rate, the population rate with higher education (Level 5-8 according to the CNED-2014), the unemployment rate, and the gross income per household in each population. The variables were collected dichotomously. All cut-off values were obtained from national and regional data collected by the INE updated in 2022. Statistical analysis was performed to compare both groups using the Chi-square test.

Results:

Population characteristics of 1446 patients were collected, including 1361 patients diagnosed with psoriasis and 83 patients diagnosed with HS. Patients with HS live in younger populations with lower levels of education than patients with psoriasis use to live. All patients with HS live in populations with higher unemployment rates than the national average, while only 71.8% of patients with psoriasis do. The 78.8% of patients with HS live in populations with incomes below the national median. This percentage is higher than patients with psoriasis. All differences were statistically significant with a $p < 0.05$. No difference was identified in terms of the foreign population rate in both populations.

Conclusion:

This study suggests that the quality of life indices of the population where patients with HS are located are inferior to those of the population where patients with psoriasis are located.

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Abstract N°: 4717

The state of the skin microbiome in patients with acne

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Introduction & Objectives: Acne (acne vulgaris) is a chronic relapsing skin condition, which occupies one of the leading places in the structure of dermatopathology, especially in young people of working age; it is a common cause of persistent scarring and negatively affects the psycho-emotional state of patients, their quality of life and performance at work. In the scientific works of domestic and foreign authors, there are indications of the relationship between the development, clinical course and severity of acne with the state of microbiota of the skin.**

Objective. To study and evaluate the degree of changes in the microbiocenosis of the skin in patients with acne, depending on their clinical course.

Materials & Methods: We examined 85 patients with acne aged 18 to 45 y/o, 49 (57.32%) women and 36 (43.87%) men, and 35 apparently healthy persons who made up the control group. The study of skin microbiocenosis was carried out by the method of microbiological study of the composition of the skin microbiota by the rinse test.

Results: According to the clinical classification of acne, 45 (51.8%) patients were diagnosed with papular acne, 31 (35.3%) with comedonal acne and 11 (12.9%) with nodular acne. 39 (44.7%) persons had acne for up to 1 year, and in 48 (55.3%) patients the duration of the disease was from 1 to 5 years.

In the microbiocenosis of the skin in patients with acne, an increase in seeding with associations of Streptococcus ά Haemolyticus + Staphylococcus Haemolyticus + Micrococcus was observed in 23 (27.05%) patients, Streptococcus β Haemolyticus + Staphylococcus Aureus + E.Coli + Candida albicans in 39 (45.88%) patients, especially in patients with papular acne and presence of Demodex folliculorum, and none of them was detected in the control group. Compared to the control group, where associations with the predominance of Staphylococcus Epidermidis were more often sown and there were no pathogenic cocci, a certain part belonged to monocultures of Staphylococcus haemolyticus and Staphylococcus aureus in patients with acne in the microbiocenosis. There was a significant increase in the growth of Streptococcus ά Haemoliticus (in 11 (12.94%) patients), Staphylococcus Haemoliticus (in 12 (14.12%) patients), Staphylococcus aureus (in 28 (32.94%) patients). In 13 (15.29) patients with acne, fungi of the Candida genus were cultured, and all of the above microorganisms were not cultured in the patients of the control group. The skin microbiocenosis disorders were observed in 20 (66.66%) patients with comedonal acne, in 37 (84.09%) patients with papular acne and in all patients with nodular acne.

Conclusion: In the examined patients with acne, the qualitative and quantitative changes in the parameters of microbiocenosis of the skin were determined, which depend on the clinical course of dermatosis. The most significant changes in the qualitative and quantitative composition of microbiota of the skin were found in patients with a chronic, severe and extremely severe acne and the presence of Demodex folliculorum. The different degrees of changes in the indicators of microbiota of the skin in patients with acne indicate the expediency of bacteriological and cultural studies of microbiocenosis of the skin in such patients for the purpose of timely informative diagnosis and prescription of a combination, differentiation and pathogenetically substantiated therapy.

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Abstract N°: 4734

Unveiling trends in Hidradenitis Suppurativa diagnosis delay: A retrospective registry-based study

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic, recurrent, debilitating, inflammatory skin disease, manifested by painful, deep-seated, inflamed lesions of the apocrine gland-bearing areas of the body. Predominantly affecting women, HS can, however, lead to more severe outcomes in males. Delayed diagnosis remains a significant global challenge, particularly for chronic conditions like HS, where early intervention can mitigate long-term, irreversible complications. We aimed to evaluate the typical diagnostic timeline of HS and analyze trends across a nine-year period in a specialized clinic.

Materials & Methods: In this retrospective registry-based study, conducted between 2015 and 2024, we reviewed and evaluated the medical records of 206 patients with HS, who attended the HS Clinic of our Academic Department. The investigation focused on assessing the duration from initial symptom onset to diagnosis, exploring fluctuations over the years and across different stages of the disease.

Results: An aggregate analysis spanning between 2015 and 2024 revealed that the mean diagnostic delay was 9.3 years. Interestingly, the average delay did not vary significantly between Hurley stages I-II (9 years) and stage III (9.5 years). Overall, a positive trend towards earlier diagnosis was documented. However, this progress appears to have stalled during the period 2020-2021. This interruption coincides with the COVID-19 pandemic, suggesting a potential impact on healthcare-seeking behavior during that time.

Conclusion: The reduction in diagnostic delays over time likely reflects growing awareness of HS among both the public and healthcare providers, as well as the improvements in specialized dermatological services. Despite this positive trend, the interruption during the pandemic underscores the vulnerability of HS patients to external healthcare system pressures. Continuing education on HS and strategic public health messaging are essential to sustain and enhance early diagnosis, ultimately improving patient outcomes.

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Abstract N°: 4741

An uncommon case of follicular occlusion triad with challenging treatment outcome: a case report

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Introduction & Objectives: Follicular occlusion triad (FOT) represents a syndrome encompassing three dermatological conditions sharing a common pathogenic mechanism of follicular hyperkeratinization: hidradenitis suppurativa (HS), acne conglobata (AC), and dissecting cellulitis of the scalp (DCS). While each condition typically presents independently, their co-occurrence is uncommon. FOT is a debilitating condition because of its chronic recurrent course, complications such as sinus formation with drainage of purulent discharge, chronic pain, scar formation with disfigurement; and association with other comorbidities, including psychological distress. Treatment involves long-term medical, destructive, and surgical therapies with generally unsatisfactory outcomes due to its recurrent nature.

This is to report on a 35-year-old man who had this condition and also suffered the psychological burden of a dysfunctional family due to his state

Case summary: A 35-year-old man, a chronic cigarette smoker presented with a 3-year history of recurrent boils across multiple body regions and enduring psychological distress due to family dysfunction exacerbated by his condition. Clinical examination revealed scarred nodulocystic lesions with sinus tracts and purulent drainage in various areas, consistent with FOT. Physical examination revealed band-like scarred nodulocystic tender lesions with sinuses draining pus on the vertex and occipital scalp with cicatricial alopecia, diffuse nodulopustular lesions with multiple pitted and hypertrophic scars on the beard area of the face, and similar nodulocystic and scarred lesions with interconnecting sinuses on the perineal, groin and perianal regions. Despite prior antibiotic treatments, the patient's symptoms persisted.

Management and outcome: Laboratory work-up showed normochromic, normocytic anaemia of packed cell volume of 33%, normal fasting blood glucose, lipid profile, liver function test, renal function test, and hepatitis B, C and retroviral screen were negative.

The patient was managed with medications that included oral and parenteral antibiotics (intravenous ceftriaxone-sulbactam, oral clindamycin, oral dapsone), oral isotretinoin, and oral prednisolone. He had serial incision and drainage procedures over 5 days. On discharge, there was a remarkable clinical improvement and he was very cheerful. He, however, represented 4 weeks later on a follow-up visit with the same lesions and had a repeat incision and drainage and an increased dose of dapsone in addition to the previously given medications. He was billed for a plastic surgery review and intervention but defaulted clinic visit on account of dissatisfaction with the non-curative management when contacted over the phone.

Conclusion: FOT presents a significant clinical challenge due to its chronic, debilitating nature and association with psychosocial distress. Despite advancements in therapy, management remains unsatisfactory compared to the treatment of individual components. This case highlights the incidence of this uncommon syndrome and the need for more research into therapeutic options specifically tailored to address FOT and its associated comorbidities, aiming to improve patient outcomes and quality of life.

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Abstract N°: 4742

Defining the window of opportunity in hidradenitis: unraveling predictors of sustained clinical remission (encore)

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disorder associated with significant morbidity and comorbidity. Predicting favorable responses to biological and surgical interventions in HS remains a challenge due to limited data. This study aimed to identify predictors of remission in a survival cohort comprising 540 HS patients undergoing adalimumab (ADA) treatment.

Material & Methods:

A retrospective observational study spanning from 2015 to 2023 with an 8-year follow-up period was conducted. The cohort consisted of 540 HS patients receiving ADA treatment across 11 Spanish hospitals. Data on demographic and clinical characteristics, prior treatments, as well as efficacy, safety, and concurrent therapies during ADA therapy were collected. Factors leading to ADA discontinuation due to HS remission were analyzed. Kaplan-Meier curves were generated, and univariate and multivariate Cox regression analyses were performed to identify predictors of remission.

Results:

Nineteen out of 540 patients (3.5%) ceased ADA therapy due to sustained complete remission, categorized as super-responders (SR). The mean time to ADA discontinuation among SR patients was 32.6 (25.3) years, whereas the mean overall survival from the entire cohort was 56.2 (95% CI 51.15-80.25) years. SR patients exhibited distinct clinical, demographic, and therapeutic profiles compared to the entire cohort. At the European Academy of Dermatology and Venereology (EADV) meeting, detailed characteristics of SR patients will be presented alongside corresponding significant differences observed in univariate analysis. Multivariate analysis revealed that major predictors for remission included body mass index (BMI) < 28.7, time elapsed from HS onset to initial biologic prescription < 34.4, and basal draining tunnel count < 3.

Conclusion:

This study underscores significant predictors of ADA discontinuation due to complete response in HS, including BMI, time from HS onset to initial biologic therapy, and basal sinus tract count. These findings contribute to the

search for factors predictive of favorable response to medical and surgical interventions in HS, in order to accurately define the *window of opportunity*.

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Abstract N°: 4769

Assessment of Clinician Knowledge on Hidradenitis Suppurativa: Insights from a Multidisciplinary Survey Study

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a detrimental disorder afflicting apocrine glands regions of the skin.The reported point prevalence of HS worldwide ranges between 0.0003% and 4.1%.The wide variations in prevalence may indicate that not all cases are correctly recognized or just possibly misclassified. Approximately 7-10 years pass for the diagnosis to be established, and specifically, 65% of HS patients underwent at least 5 physician visits prior to receiving a diagnosis.

The aim of this study was to confirm of the assumed hypothesis, indicating that HS is insufficiently recognized and inaccurately classified among clinicians, may pave the way for future initiatives aimed at raising awareness about this clinical entity.

Materials & Methods:

The cross-sectional survey was conducted with the participation of dermatologists, gynecologists, urologists, general surgeons, and family medicine practitioners. Anonymous surveys were personally distributed at scientific conferences using QR codes, tablets, and paper-based questionnaires.

The questionnaires included images depicting skin lesions of HS at various stages according to Hurley Score System. The first question was an open-ended inquiry soliciting the diagnosis of the disease, followed by subsequent closed-ended questions offering a selection among several proposed differential diagnoses. Additionally, physicians were asked to suggest redirecting the patient to a specialist in another field, including family medicine, dermatology, gynecology, urology, or general surgery.

Results:

In the study, 655 physicians participated, comprising 142 dermatologists, 154 surgeons, 137 family medicine practitioners, 112 gynecologists, and 110 urologists.The initial question was an open-ended query concerning the depicted male axillary region exhibiting Hurley III lesions. The most frequently suggested diagnoses included HS at 58.17% and furunculosis at 15.27%. HS was properly diagnosed by 96.48% of the dermatologists.

In response to the subsequent question regarding genital area of male patient (Hurley II), the distribution of the most frequent responses was as follows: 34.5% of all surveyed physicians identified HS, 25.65% indicated furunculosis, and 16.18% venereal granuloma.

In the subsequent question featuring an photograph displaying the anogenital area of a female patient (Hurley I), surveyed physicians most frequently identified HS in 29.92%, 23.36% as furunculosis, and 14.35% as multiple sebaceous cysts. Among dermatologists, only 58.45% identifiedHS.

The last question pertained to a photograph illustrating a buttocks lesions (Hurley III) . The most commonly indicated diagnoses were HS, pilonidal cyst, and cutaneous manifestation of Crohn’s disease. Dermatologists accurately diagnosed HS in 76.76%of the cases. Other diagnoses encompassed tuberculosis colliquativa (6.34%), and pilonidal cyst.

Conclusion:

HS is characterized by multifaceted diagnostic challenges across diverse medical specialties, even dermatologists. Visiting multiple healthcare providers often results in various misdiagnoses for patients, causing frustration, and sometimes leading to improper treatments. Targeted educational interventions should aim to bridge the gap of knowledge of HS, striving for earlier and more accurate HS diagnoses to facilitate timely and effective therapeutic interventions, thereby improving patient outcomes.

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Abstract N°: 4818

Differences in Acne Treatment Among Transgender Individuals During and After Gender Reassignment

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Introduction & Objectives:

Acne vulgaris is the most common skin condition that affects adolescents and adults worldwide, yet it holds particular significance for transgender and gender-diverse individuals. This group faces unique challenges related to acne treatment during and after the gender reassignment process due to hormonal therapy which has an impact on the function of sebaceous glands. Transgender person is someone whose gender identity differs from the sex they were assigned at birth. Dermatologists play a crucial role in supporting transgender and gender-diverse patients by enhancing their understanding of gender identity and incongruence. Improved comprehension of gender-affirming medical care, including hormone treatment and puberty suppression, can significantly contribute to superior patient outcomes. The objective of our study was to comprehensively review existing literature on acne treatment differences during the process of sex reassignment and highlight variations in acne management among transgender patients.

Materials & Methods:

The authors conducted a systematic review of the literature on differences in the treatment of acne vulgaris in transgender population by searching the Pubmed, EMBASE and Gogle Scholar databases with the following keywords: “transgender”, „acne”, „acne treatment”. Of the 30 articles identified, 13 were selected for inclusion in the review, covering publications from the period: November 2015 to April 2024.

Results:

Acne vulgaris is a common adverse effect of testosterone treatment in transgender patients. According to the collected data, it occurs in about 80% of transgender men and appears within the first 6 months of testosterone initiation. There are no established guidelines for acne treatment in

this group of patients but the ones for cisgender population (which include local and oral antibiotics, isotretinoin and, in women, spironolactone) can be used with good results. Although it is important to inform transmasculine patients (if they are before gender reassignment surgery) about potential pregnancy and using 2 forms of contraception or abstinence while on oral isotretinoin.

Conclusion:

Acne is a huge problem in a group of trangender patients. It mostly affects transgender male and it is correlated with testosterone therapy. The guidelines for acne treatment in cisgender population can be successfully used in transgender patients.

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Abstract N°: 4823

Challenges and Benefits of Isotretinoin for Acne Treatment in Transgender People – systematic review

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Introduction & Objectives:

The treatment of acne in transgender individuals presents unique challenges and opportunities. This review aims to comprehensively explore the use of isotretinoin, a powerful acne treatment, within this population, focusing on its challenges and benefits, and considering the hormonal transitions that are often a part of transgender healthcare.

Materials & Methods:

A thorough literature search was conducted across several databases including PubMed, Scopus, and Web of Science, from inception until April 2024, focusing on the studies that discuss the treatment of acne with isotretinoin in transgender patients. Original studies, case series and case reports were included in the systematic review, with an emphasis on outcomes related to the interaction between isotretinoin and hormone therapy.

Results:

This systematic review indicates that isotretinoin is effective in managing severe acne in transgender individuals, similar to its use in cisgender populations. However, transgender patients may experience unique side effects, particularly related to the concurrent use of hormonal treatments such as testosterone, which can exacerbate acne. Adjustments in isotretinoin dosing and careful monitoring of liver function tests and lipid profiles are recommended. Furthermore, psychological aspects of acne and its treatment in the transgender population require sensitive handling to ensure compliance and effectiveness.

Conclusion:

Isotretinoin remains a valuable tool in the dermatological arsenal for treating severe acne in transgender individuals, provided that treatment protocols consider hormonal influences and the specific needs of this population. Dermatologists should be aware of the complex interplay between hormonal therapies and isotretinoin's mechanism of action, ensuring a holistic and individualized approach to acne treatment in transgender patients. Future research should aim to fill the current knowledge gaps regarding long-term outcomes and optimal management strategies in this unique cohort.

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Abstract N°: 4855

Bakuchiol - a safer alternative to retinoids or just a halfway in the treatment? - analysis of a survey study

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Introduction & Objectives:

The primary objective of this study was to compare the real-world usage of retinoid and bakuchiol products within the Polish population. The analysis considered subjective user experiences and the factors influencing their selection of specific product groups.

Materials & Methods:

The study was conducted using an online survey consisting of 33 questions (single and multiple choice). The survey was conducted online from February 24, 2024, to March 9, 2024, among a population of young women aged 19–42 years (median age 24 years). A total of 84 complete responses were included in the study. The data collected during the study were statistically processed using the Statistica program.

Results:

In terms of therapeutic interventions, a majority of the cohort (55, 67.07%) exclusively utilized retinoids, whereas 15 individuals (18.29%) solely employed bakuchiol. Additionally, a subset of 11 patients (13.41%) utilized both retinoids and bakuchiol concurrently. Among users of retinoids, the predominant indication for usage was acne treatment (n=41, 74.55%), with the preferred formulations being gel (n=20; 36.36%) and oral administration (n=20; 36.36%). Conversely, among bakuchiol users, the primary indication was wrinkle reduction (n=9, 60.00%), predominantly administered in gel form (n=6, 40%). The frequency of application varied, with the majority of retinoid users applying the treatment once daily (n=26; 47.27%) for durations exceeding 3 months (n=38, 69.09%). Conversely, most bakuchiol users applied the substance once daily (n=10; 66.67%) for a period ranging between 2 and 4 weeks (n=5, 33.33%). Subjective assessments of treatment efficacy revealed that patients utilizing retinoids reported a superior improvement in skin condition compared to those using bakuchiol, as assessed on a scale ranging from 1 to 5 (median score of 4, IQR 2 vs. median score of 2, IQR 2; p=0.03). However, a higher proportion of patients utilizing retinoids reported experiencing side effects in comparison to those employing bakuchiol (46, 83.64% vs. 1, 6.67%; p<0.001).

Conclusion:

The above analysis shows that despite the still dominant position of retinoids, bakuchiol as an alternative is becoming increasingly popular. Its subjective effectiveness is lower, but the negative effects of its use noticed by patients are significantly smaller. This fact, combined with the greater safety of preparations containing bakuchiol, constitutes an interesting alternative to retinoids in less severe conditions.

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Abstract N°: 4907

A Physiologically Relevant In Vitro Model for Acne Vulgaris: The SEBO662AR Sebocyte Cell Line

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Introduction & Objectives:

Sebocytes play a key role in the synthesis and secretion of sebum in the skin, contributing to its distinct lipid composition, including the presence of wax esters and squalene. The common skin disorder acne vulgaris is characterized by dysregulated sebum production. Factors such as hormonal changes, imbalances in the skin microbiota, and specific dietary patterns, especially consumption of dairy and high glycemic index foods common in a Western diet, can influence sebum synthesis. We aimed to analyze sebocyte differentiation and lipid metabolism in acne vulgaris using the SEBO662AR cell line as a physiologically relevant *in vitro* model.

Materials & Methods:

The sebocyte cell line SEBO662AR, which stably expresses a functional androgen receptor, was previously developed by us. Using a mixture designed to mimic hormonal and dietary imbalances (Diff Mix), we induced the differentiation of sebocytes. This approach was evaluated by analysis of gene expression using RT-qPCR, as well as assessments of protein and lipid synthesis, specifically focusing on squalene epoxidase (SQLE), the enzyme critical for the conversion of squalene into cholesterol.

Results:

Our research revealed that the Diff Mix significantly altered the expression of certain sebocyte-associated genes, elevating levels of MUC1 and RASD1 while reducing KRT5 and BCL2. During the differentiation process of SEBOAR662, the expression of SQLE was slightly modulated. SQLE was functional, as demonstrated by the significant increase in squalene accumulation (> 500%) and reduction in cellular cholesterol content by 50% following treatment with the SQLE activity inhibitor NB-598. A lipid-specific probe showed a significant increase in neutral lipid accumulation by 760%, and LC/MS analysis showed a 100% increase in squalene accumulation. The effect of the Diff Mix was found to be reversible through the application of inhibitors such as enzalutamide or rapamycin.

Conclusion:

Our results indicate that the SEBO662AR cell line serves as a functional model for acne research. This is the first introduction of a commercially available model to study modulators that affect squalene synthesis.

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Abstract N°: 4919

Using diseased skin organ culture to gain further insight into the mechanisms of Secukinumab in ameliorating the inflammatory phenotype of hidradenitis suppurativa lesions

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Introduction & Objectives:

There is a growing need for clinically relevant preclinical research platforms to evaluate the efficacy and investigate the mechanisms of action (MoA) of novel therapeutic candidates for hidradenitis suppurativa (HS). Recently, the FDA approved Secukinumab (Secu) to treat moderate to severe HS. Here, we further elucidated how Secu improves the lesional HS phenotype using our optimized lesional HS skin organ culture model.

Materials & Methods:

Full-thickness skin punches from lesional (fistula-containing) and peri-lesional skin were obtained from three HS patients (two male, one female) and cultured with either Secu (10µg/ml) or IgG control (10µg/ml) in a defined, standardized, serum-supplemented proprietary medium for two days.

Results:

First, gene expression changes between IgG-treated lesional skin and IgG-treated peri-lesional skin were assessed. Their transcriptional signatures were significantly different including dysregulated genes genes associated with B- and T-cell activation, T- and NK-cell cytotoxicity, leukocyte extravasation, and the inflammasome. These findings were confirmed by gene set enrichment analysis (GSEA) and gene ontology (GO) biological process (BP) term analysis, as GO-BP terms, correlating to B- and T-cell activation and -differentiation, B-cell mediated immunity as well as Th17 cell differentiation, were significantly enriched and activated in IgG-treated lesional skin. Next, we compared Secu-treated lesional skin with IgG-treated lesional skin and identified six significantly down-regulated genes following Secu treatment, including FCGRA2 (FCγ-receptor 2A), PIK3AP1 (PI3K/Akt signalling), Integrin subunit alpha X (CD11c), GRIN2A (NMDA-R signalling), LAIR1 (Leukocyte associated immunoglobulin like receptor 1), and ITGB2 (LFA-1), all of which are involved in immune cell activation. Additionally, GSEA revealed suppression of IL-1 and TNFα signalling following Secu treatment. Interestingly, activation of the IL-17RA/IL-17RC receptor can induce IL-1 and TNFα signaling, and IL-17A interacts with both pathways to modulate the expression of pro-inflammatory mediators. To draw further conclusions on how Secu improves the lesional HS phenotype, we compared the transcriptomic profiles of Secu-treated lesional skin vs. IgG-treated peri-lesional skin with those of IgG-treated lesional skin vs. IgG-treated peri-lesional skin. Interestingly, selected pathways that were enriched and activated in IgG-treated lesional skin vs IgG-treated peri-lesional skin, including B-cell activation, Th17 differentiation and chemotaxis, were found to be less activated or even suppressed in Secu-treated lesional skin vs IgG-treated peri-lesional skin.

Conclusion:

Our data show maintenance of the lesional HS phenotype during ex vivo organ culture, supporting its use as tool for efficacy testing and MoA studies of novel HS therapeutics. Additionally, they offer further insight how Secu

improves the inflammatory phenotype of HS patients with clinical effectiveness.

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Abstract N°: 4923

Treatment-seeking behavior for acne among adolescents in Moshi, Tanzania

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Introduction & Objectives:

Acne vulgaris is a chronic inflammatory disease of the pilosebaceous unit, it is a prevalent dermatological condition affecting about 85% adolescents globally. Due to its significant impact on quality of life, adolescents often resort to self-treatment due to various beliefs and perceptions surrounding acne. Understanding treatment-seeking behavior for acne is crucial for effective management and prevention of potential complications. This study aimed to highlight the treatment-seeking behavior of adolescents with acne in Moshi, Northern Tanzania

Materials & Methods:

A cross-sectional study was conducted among secondary school students in Moshi, Northern Tanzania from October 2022 to May 2023. A total of 585 students from three secondary schools were randomly selected to participate. Data on the students' treatment-seeking behavior was collected by using questionnaires

Results:

The study revealed a high prevalence of 77.5% of the students sought treatment for their acne. However, despite the availability of effective treatments, a significant proportion of students demonstrated delayed health-seeking behaviour by opting for alternative treatment or self-medication. Various sources, including family members, friends and the internet, influenced their decision-making regarding acne management.

Conclusion:

The study highlights the need for targeted interventions to improve awareness and access to appropriate acne management among adolescents in Moshi. Further research should focus on studying the myths and misconceptions surrounding acne and the psychosocial impact of acne to enhance health literacy among adolescents and their families.

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Abstract N°: 4936

Treatment of mild to severe acne vulgaris with a 650-microsecond 1064-nm Nd:YAG laser

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Introduction & Objectives:

To evaluate the efficacy and tolerability of a 650-microsecond, pulsed 1064-nm Nd:YAG laser therapy for mild to severe facial acne vulgaris.

Materials & Methods: Human subjects with mild, moderate, or severe acne enrolled in the prospective, single-center study. Subjects received 5 treatments at 2-week intervals with the 650-microsecond pulsed 1064 nm Nd:YAG laser (Aerolase Neo Elite, Tarrytown, NY) without topical anesthetic. Follow-up visits were 30 days and 90 days after the final treatment. At each visit skin analyses, adverse event inquiries, subject global assessments, lesion counts, investigator's global assessments [IGA]), and safety appraisals were performed.

Results: The median percent reduction in lesion counts was 83.72% at 6 weeks (treatment 3) and 86.67% at 90 days. No subject discontinued the study due to treatment discomfort. Most subjects noticed improvement on or before treatment 3. Clearance reached a median of 90% at the 30-day follow-up. Median IGA values decreased rapidly and reached a plateau (1.0) at week 6. Ninety percent of subjects were slightly to highly satisfied at week 6 and 90% slightly to strongly agreed that their acne treatments improved their self-esteem. Adverse events were not observed.

Conclusion: The 650-microsecond, pulsed 1064-nm Nd:YAG laser safely improves mild to severe facial acne vulgaris with high subject satisfaction.

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Abstract N°: 4941

Exploring the journey to diagnosis in hidradenitis suppurativa: a real-world survey in the United States and Europe

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition characterised by recurrent outbreaks of painful nodules, abscesses, and tunnels. Early diagnosis and treatment of HS is crucial to reducing disease progression and managing symptoms. There is a paucity of data regarding HS diagnosis from the patient's perspective. We aimed to explore physician-reported challenges in, and the patient journey to, HS diagnosis.

Materials & Methods:

Data was drawn from the Adelphi Real World HS Disease Specific Programme™, a cross-sectional survey, with elements of retrospective data collection, of dermatologists and their HS patients in the United States (US) and four European countries (France, Germany, Italy, and Spain) from November 2020 and April 2021. Dermatologists provided their perceptions on barriers to identifying and diagnosing HS and reported data on demographic and clinical characteristics for 5–7 consecutively consulting HS patients. Patients were then invited to voluntarily complete a patient self-completion form detailing diagnosis, management, and attitudinal statements measured on a scale from 1 (completely disagree) to 10 (completely agree), with patient agreement determined as a score of ≥6. Numerical outcomes were compared using t-tests, reported as mean [standard deviation]. Categorical outcomes were compared using Fisher's exact tests.

Results:

In total, 262 dermatologists (US, n=81; Europe, n=181) and 565 patients (US, n=188; Europe, n=377) reported data for this analysis.

The top dermatologist-reported challenges to identifying and diagnosing patients with HS were "HS signs have similarities with other conditions" (29%), "low awareness of HS" (24%) and "lack of education available for identifying and diagnosing HS" (20%), with no significant differences between the US and Europe.

A higher proportion of US dermatologists believed that "increased awareness/education of patients" could help facilitate early identification of HS compared to European dermatologists (69% vs 27%, p<0.001). Conversely, "increased awareness/education of physicians" was reported by fewer US dermatologists (72% vs 88%, p=0.001). Other factors reported by all physicians stated that "disease information availability" (42%), and "availability of diagnostic tests" (34%) could help facilitate the early identification and diagnosis of HS.

US patients took longer than European patients to first talk to a doctor about their symptoms (1.8 [4.3] years vs 1.2 [2.2] years, p=0.044). Time from first consultation to diagnosis of HS was 1.8 [5.5] years for US patients and 1.5 [3.5] for European patients (p=0.49). Out of all patients, 40% reported a delay in being seen and treated by an HS specialist once they were diagnosed, which was reported in more US patients compared to Europe (46% vs 37%, p=0.043).

Out of all patients, 54% agreed with the statement "I feel that more needs to be done to speed up diagnosis of

HS". More patients in the US completely disagreed compared to European patients (25% vs 11%, $p<0.001$). Overall, 91% of patients agreed with the statement "I knew nothing about HS before I was diagnosed with the condition".

Conclusion:

HS heterogeneity, lack of awareness and lack of education, alongside availability of tests, are key barriers that delay diagnosis of HS. There is an unmet need for patient education and also to further physician awareness to decrease time to diagnosis.

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Abstract N°: 4944

Exploring knowledge and awareness of hidradenitis suppurativa amongst dermatologists and their patients: a real-world survey in the United States and Europe

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, inflammatory, skin disease characterised by recurrent outbreaks of painful nodules, abscesses, and tunnels. Knowledge surrounding the pathophysiology and awareness of HS is limited. We aimed to explore physician and patient awareness of the disease, to elucidate unmet educational needs within a cohort of dermatologists and patients with HS.

Materials & Methods:

Data were drawn from the Adelphi Real World HS Disease Specific Programme™, a cross-sectional survey, with retrospective data collection, of dermatologists and their HS patients in four European countries (France, Germany, Italy and Spain) and the United States (US) from November 2020 – April 2021. Physicians reported their awareness and experience managing HS. Patients were invited to voluntarily complete a questionnaire detailing their management and support received for their HS. Patient agreement to attitudinal statements was measured on a scale from 1 (completely disagree) to 10 (completely agree). Numerical outcomes were compared using t-tests, reported as mean [standard deviation]. Categorical outcomes were compared using Fisher's exact tests.

Results:

In total, 262 dermatologists (US, n=81, Europe, n=181) and 565 patients (US, n=188, Europe, n=377) reported data.

Overall, 50% of dermatologists were female and 63% were HS specialists (US 43%, Europe 71%, $p<0.001$). On average, dermatologists spent 15% of their time managing HS, with 90% of their patients being referred from other healthcare professionals.

"Disease prevalence" (51%), "lack of access to information or support materials" (46%), and "funding" (31%) were selected by physicians as factors that limit education and awareness of HS. The top solutions to overcome these limitations were "public awareness campaigns" (66%), "increased research into HS" (55%), "improved understanding of HS pathophysiology" (45%) and "increased training and tools available to aid diagnosis and monitoring" (45%). "Participation in relevant scientific congress" was selected as a solution significantly less frequently by US dermatologists compared to Europe (15% vs 43% respectively, $p<0.001$).

More US physicians recommended HS websites to their patients than European physicians (64% vs 49%, $p=0.023$). Of all physicians, 51% recommended HS support groups, however 92% of patients were not involved with any support groups/organisations at data collection. Fewer US patients received information about their HS from one or more of their current doctors compared to Europe patients (74% vs 85%, $p=0.002$), with a larger percentage of patients finding their information via online research instead (46% vs 36%, $p=0.041$). US patients agreed more with the statements "I would like more support with management of my HS and other conditions" (mean agreement score 4.8 [3.0] vs 3.7 [2.5], $p<0.001$) and "It is important for me to be able to connect with other HS

patients" (4.0 [2.8] vs 3.5 [2.5], p=0.046) compared to patients in Europe.

Conclusion:

Though dermatologists emphasised the importance of support groups, most patients were not involved with them, with a large proportion of patients supplementing their education online. Despite differences in HS knowledge between the US and Europe, our findings heighten the importance of continued research, awareness, and education in HS globally, providing dermatologists with the knowledge to provide optimal care and education to patients affected by HS.

EA DV CONGRESS
AMSTERDAM 25-28 SEPTEMBER 2024
EUROPEAN ACADEMY OF DERMATOLOGY & VENEREOLOGY

Abstract N°: 4971

Skin expression of pro-inflammatory interleukins in adult female acne lesions

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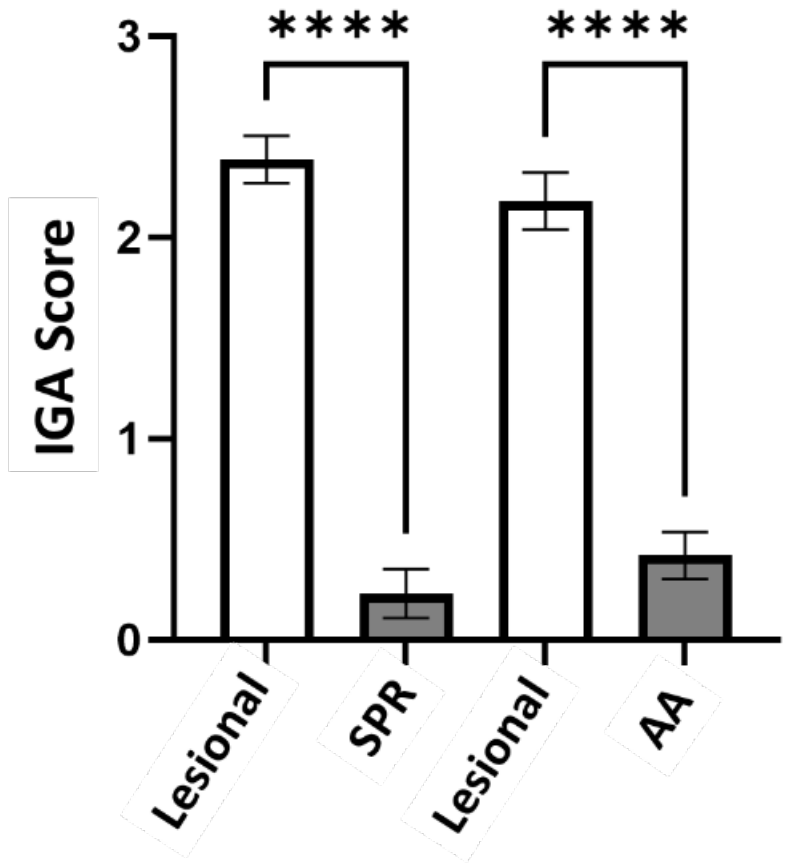
Introduction & Objectives: Adult female acne (AFA), a multifactorial disease, affects women over the age 25 years and it is characterized by prolonged duration.1 Inflammation plays a key role in the etiopathogenesis of acne. Among the various pro-inflammatory interleukins (ILs), IL-6 has been implicated in acne.2-4 In addition, IL-8 acts as an important pro-inflammatory cytokine and a powerful chemoattractant.5 The immunological aspects of acne are not yet completely understood. Previous studies have focused on severe acne vulgaris. Regarding AFA, for most patients, the severity of the disease is mild to moderate and has particularities.6 Our objective was to analyze the expression of ILs in inflammatory lesions, in comparison with perilesional skin, in AFA; and its modification after two therapeutic modalities.

Materials & Methods: A therapeutic, interventional, randomized and comparative study including 40 women, aging from 25 to 44 years old, with mild to moderate acne, was conducted after approval by Institutional Research Ethics Committee. They were randomized into two treatment groups, for six months: 1- azelaic acid (AA) 15% gel twice a day; 2- spironolactone (SPR) 100 mg/day. At baseline a 3-mm punch biopsy was performed under local anaesthesia in the submandibular region (inflammatory lesion and perilesional).** After treatment, a third skin biopsy was performed, in a location close to the first. A total of 112 biopsies were prepared using the hematoxylin-eosin (HE) staining method. The inflammatory score analysis was performed using photomicrographs.7 To prepare the slides for immunohistochemistry, we used antibodies: IL-6 polyclonal antibody (Novus Biologicals, code NB600-1131-0.2 ml), diluted 1/50; IL-8 polyclonal antibody (Novus Biologicals, code NBP2-16958-0.1 ml), diluted 1/100. The analysis of IL expression was analyzed using the Image J program, totaling around 700 images from our sample. In addition, the Investigator's Global Assessment (IGA) of acne severity was performed before and after 6 months of treatment.

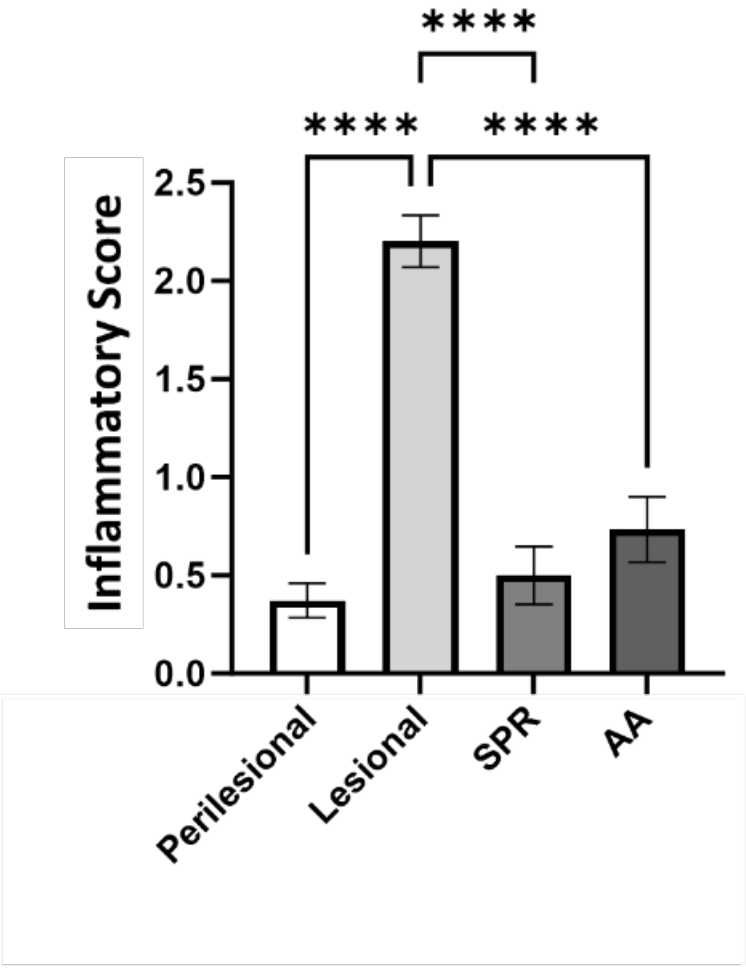
Results: Both treatments resulted in significant clinical improvement ($p<0.0001$) (Graphic 1). Skin with acne lesions was characterized by the presence of an intense inflammatory infiltrate in the dermis; after both treatments there was a significant reduction, with no statistical difference between them ($p<0.0001$) (Graphic 2). There was strong expression of IL-6 ($p<0.0001$) and IL-8 ($p<0.05$) in the acne lesion area, low expression in normal skin, and its modulation after both treatments, with no significant difference between them (Graphics 3 and 4).

Conclusion: This study allowed us to better understand the histology of AFA. A significant decrease in IL-6 and IL-8 expression after six months of both treatments was observed, which was parallel to clinical improvement. Thus, the reduction of inflammation and consequent therapeutic efficacy was demonstrated.

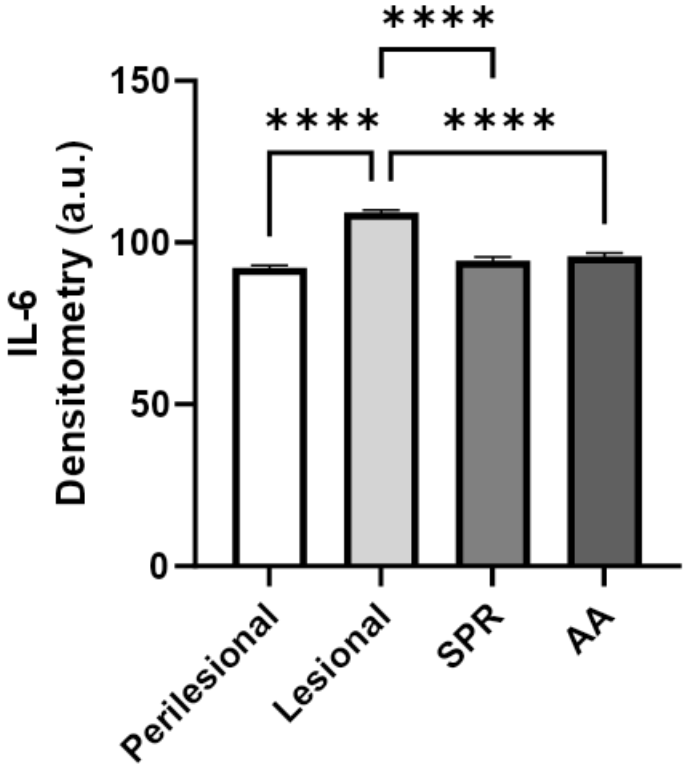
Graphic 1. IGA score. Data represented by mean ± SEM of IGA score ($p<0.0001$).



Graphic 2. Inflammatory score. Data represented by the mean ± SEM of the inflammatory score ($p<0.0001$).



Graphic 3. Densitometry of IL-6 expression in the skin. Data shown as means ± SEM of cytokine expression in arbitrary units (a.u.) ($p<0.0001$).



Graphic 4. Densitometry of IL-8 expression in the skin. Data shown as means ± SEM of cytokine expression in arbitrary units (a.u.) ($p<0.05$).

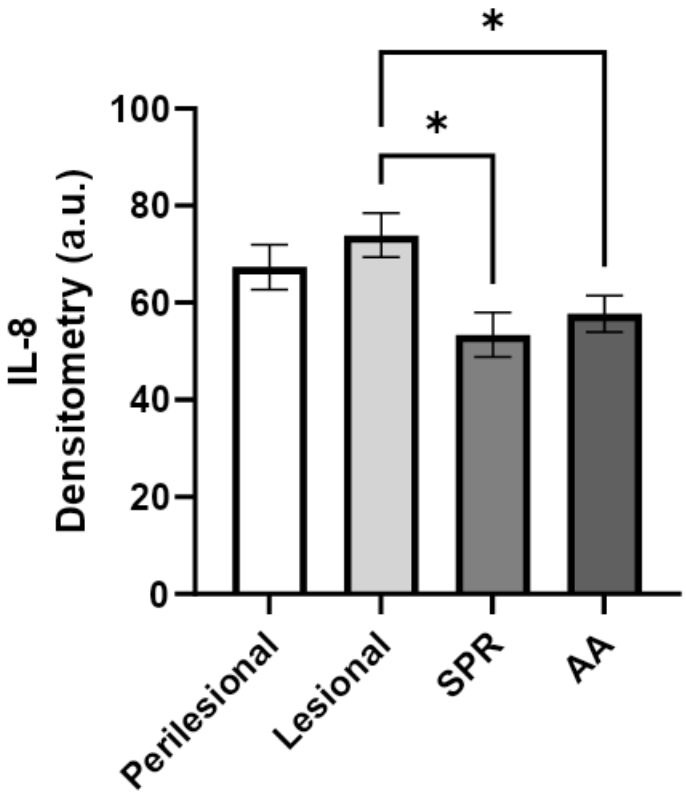


Figure 1. Examples of slides from patients in group AA.

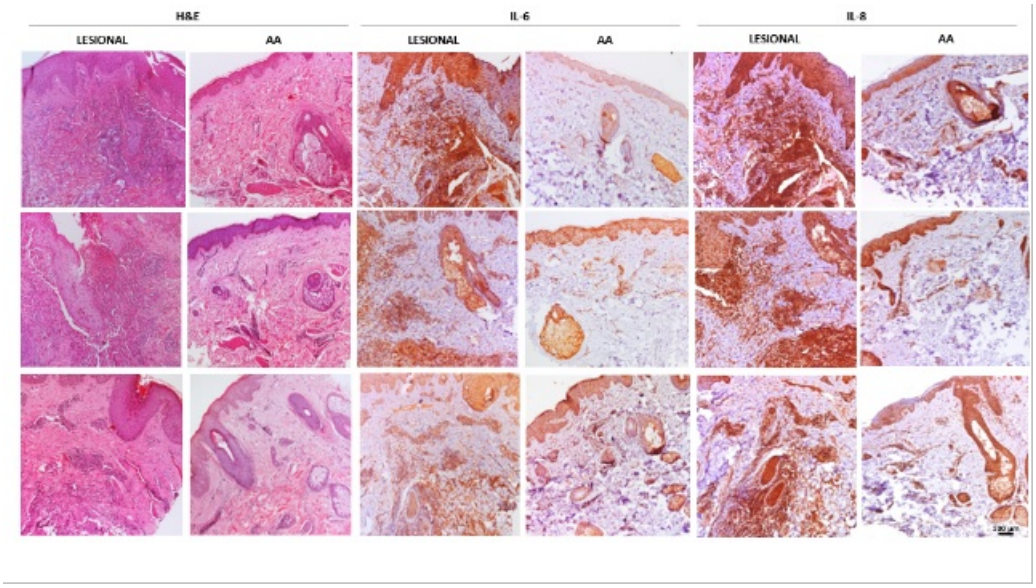
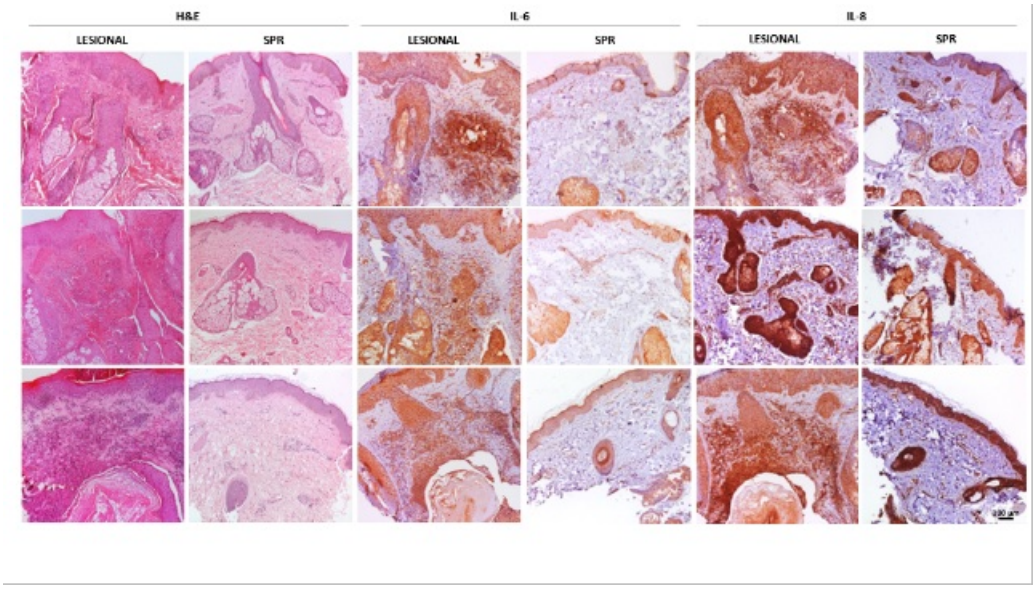


Figure 2. Examples of slides from patients in group SPR.



EADV CONGRESS
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Abstract N°: 5128

Follicular Dowling degos disease with Hidradenitis suppurativa – a case series of 3 patients

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Introduction & Objectives:

Dowling degos disease (DDD) is an autosomal dominant reticulate hyperpigmentary disorder characterized by small, hyperkeratotic, dark brown macules over intertriginous areas. Hidradenitis Suppurativa (HS) is characterized by multiple, recurrent painful nodules, draining sinuses and abscesses predominantly in skin folds containing terminal hair and apocrine glands. HS represents an additional feature seen in a variant of DDD with presenilin enhancer protein 2 gene (PSENEN) mutation. This is a rare association and has been reported in less than 100 cases in the literature. here we review three such interesting cases

Materials & Methods:

Patient visiting dermatology OPD with classic features of Dowling degos disease were examined , skin biopsy and other relevant investigations were done

Results:

Case 1: A 48-year-old female, presented with multiple pitted scars and comedones over face, back, axilla, hyper pigmented macules over bilateral axilla, neck, sub mammary area, medial aspect of thigh, multiple painful nodules over axilla, back, abdomen, gluteal region since childhood. Scalp, nail, oral mucosa was normal

Case 2: A 22-year-old female with multiple pitted scars over the forehead, nose, perioral area, comedo like lesion over the back, bilateral cubital fossa, face and multiple nodules present in axilla, buttocks, scars for 6 years. Oral cavity, palms, soles, nails spared.

Case 3: A 30-year-old male presented with multiple pitted scars over the forehead, nose, perioral area. comedo like lesion over the back , bilateral cubital fossa , face .multiple nodules were present in axilla , buttocks .Healed scar over the buttocks since 7 years . Oral cavity, palms, soles, nails spared.

Skin biopsy in all three patients showed dilated follicular infundibulum filled with keratin and filiform antler like rete ridges involving the follicular area, confirming the diagnosis of follicular Dowling degos disease with hidradenitis suppurativa. case 1 was started on Cap Isotretinoin 20mg BD, case 2 & case 3 were started on cap doxycycline 100mg bd and were evaluated for oral retinoids.

Conclusion:

Follicular Dowling- degos disease with hidradenitis suppurativa is a rare reticulate hyperpigmentary disorder, less than100cases have been reported in literature . Our case series reports this rare association. gene mutation studies are advised in such cases to confirm the variant of Dowling degos disease associated with hidradenitis suppurativa, same could not be done in our patients due to lack of resources.

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Abstract N°: 5135

Assessment of the mental status of patients with rosacea

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Introduction & Objectives:

Rosacea is a common chronic skin disease that significantly impairs patients' quality of life. Various phenotypic characteristics and the localization on the face can have a negative impact on mental health and socialization, causing anxiety and depression in patients with rosacea. The aim of the study was to determine baseline levels of anxiety and depression in patients with erythematotelangiectatic telangiectatic and papulopustular rosacea and their combination and to compare the effect of combination therapy on patients' psychoemotional state.

Materials & Methods:

We observed 45 patients with a diagnosis of erythematotelangiectatic rosacea and papulo-pustular subtypes of mild and moderate severity and their combination. Patients were divided into three groups according to the choice of combination of treatment methods: In group No. 1, – 15 patients received botulinum toxin therapy with topical azelaic acid 15% plus ivermectin 1%. In group No. 2, - 15 patients received pulsed dye laser (PDL) 595 nm in combination with the topical therapy azelaic acid plus ivermectin. In group No. 3, - 15 patients received incobotulinumtoxinA in combination with PDL 595 nm and topical azelaic acid therapy in combination with ivermectin. The course of treatment was three months.

Results:

All patients tolerated the treatment satisfactorily; no side effects were registered, which indicates the possibility of combined use of azelaic acid and ivermectin preparations in combination with botulinum therapy with incobotulinumtoxinA and PDL 595nm.

According to the developed questionnaire, 26.7 % of the patients included in the study showed a deterioration in skin appearance due to emotional strain and stress.

All patients at baseline showed subclinical manifestations of anxiety and depression according to the Hospital anxiety and depression scale (HADS). In addition, the mental state and anxiety of patients with rosacea can be significantly improved after treatment. Combination therapy with ivermectin, azelaic acid, PDL 595 nm and botulinum therapy brings maximum results in normalizing the psychoemotional state.

Alleviating the clinical manifestations of rosacea helps to reduce the level of anxiety and depression in patients with rosacea.

Conclusion:

The psychosocial effects of rosacea can be severe and debilitating and lead to anxiety and depression. It is important for clinicians to recognize the psychological impact of this disease, to use and implement combined treatment methods. The combination of topical therapy, botulinum therapy and PDL 595 nm, reducing the clinical manifestations of rosacea, normalizes the level of anxiety and depression. Improvement of the psychoemotional status of patients, reduction of anxiety and depression in patients with rosacea can increase the periods of

remission of the disease, improve the quality of life.

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Abstract N°: 5188

Association between air pollutant exposure and acne severity in a multiethnic adolescent cohort in the south-west of The Netherlands

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Introduction & Objectives:

Acne vulgaris is a prevalent multifactorial inflammatory skin condition. Recent evidence suggests that exposure to air pollution might aggravate acne symptoms by altering sebum production and damaging the skin barrier. However, large population-based studies exploring the effect of air pollutants on acne severity are lacking. The objective was to examine the association between air pollution exposure and acne severity in adolescents.

Materials & Methods:

This study was embedded in the Generation R Study from Rotterdam, the Netherlands. Adolescents with available data on air pollution exposure and physician-graded acne severity were included (N=4422). Average exposure levels of six pollutants (different sizes of particulate matter (PM) and nitrogen oxides (NO)) at participants' home addresses three months prior to acne evaluation were estimated using land-use regression models. Acne severity at a median age of 13.5 years was physician-graded using the Global Evaluation of Acne severity score and subdivided into three ordinal categories: (almost) clear, mild, and moderate/severe. Adjusted odds ratios were obtained from single-pollutant ordinal logistic regression models and were adjusted for child sex and ethnicity, maternal education level and smoking habit, net household income and neighborhood socio-economic status. Results were corrected for multiple testing.

Results:

Half the adolescents had mild or moderate/severe acne. Exposure to higher levels of PM10 and PM2.5-10 was associated with lower odds of more severe acne: adjusted odds ratios 0.76 (95% confidence interval 0.64;0.90) and 0.73 (0.59;0.89), respectively (*Table 1*). No associations were found for exposure to PM2.5, PM25abs, NO2 or NOx.

Conclusion:

Exposure to higher levels of air pollution was not associated with more severe acne in our study. Observed associations are likely due to negative residual confounding, chance, or selection bias. Further research should consider individualized air pollution levels for more comprehensive exposure measurements and longitudinal methods to enable exploration of potential causal relations.

Table 1. Unadjusted and fully adjusted associations between exposure to a unit increase in various air pollutants and acne vulgaris severity

Air pollutant (per unit of change)	Unadjusted Odds Ratio (95% confidence interval)	Adjusted Odds Ratio (95% confidence interval)
NOx (Δ20 µg/m3)	0.98 (0.93; 1.03)	0.97 (0.92; 1.02)
NO2 (Δ10 µg/m3)	0.98 (0.91; 1.05)	0.95 (0.88; 1.03)
PM10 (Δ10 µg/m3)	0.79 (0.67; 0.93)*	0.76 (0.64; 0.90)*
PM2.5-10 (Δ5 µg/m3)	0.84 (0.70; 1.02)	0.73 (0.59; 0.89)*
PM2.5 (Δ5 µg/m3)	0.91 (0.81; 1.02)	0.90 (0.80; 1.01)
PM2.5abs (Δ1 10-5 m-1)	0.90 (0.78; 1.05)	0.89 (0.76; 1.04)

The unadjusted odds ratios and adjusted odds ratios (and their 95% confidence intervals) are obtained from univariable and multivariable ordinal logistic regression analyses, respectively. The multivariable analyses were adjusted for biological sex and ethnicity of the child, maternal education level and smoking habit, net household monthly income, neighborhood socio-economic status. An asterisk (*) indicates statistically significant associations with a p-value <0.0125 (adjusted for multiple testing). Analyses are based on the pooled result of 25 imputed datasets.

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Abstract N°: 5198

A Phase 2 Multicenter, Randomized, Double-Blind Placebo-Controlled Study to Evaluate the Safety and Efficacy of Lutikizumab in Adult Patients with Moderate to Severe Hidradenitis Suppurativa Who Have Failed Anti-TNF Therapy

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This Abstract is an encore from AAD 2024

Introduction & Objectives:

The Primary Objective of the Study: Assessment of the safety and efficacy of lutikizumab 300 mg every week (EW), 300 mg every other week (EOW), and 100 mg EOW versus placebo (PBO) for the treatment of signs and symptoms of moderate to severe HS in adult patients who have failed anti-TNF therapy.

The Primary Efficacy Objective: The primary endpoint is the achievement of HiSCR 50 at Week 16.

The Secondary Efficacy Objective: The secondary endpoint is the achievement of at least a 30% reduction and at least 1-unit reduction from baseline in worst skin pain (maximal daily pain) at week 16, as assessed by the Patient's Global Assessment (PGA) of Skin Pain (Numeric Rating Scale [NRS] 30) among patients with baseline NRS ≥ 3.

Introduction:** This study evaluates lutikizumab, a dual-variable-domain interleukin (IL) 1α/1β antagonist, in adult patients with moderate to severe HS who have failed anti-TNF therapy.

Materials & Methods:

Adult patients with a clinical diagnosis of HS, who failed anti-TNF treatment, were centrally randomized at baseline in a 1:1:1:1 ratio to one of 4 treatment groups, each with a planned N = 40: lutikizumab 300 mg every week (EW); lutikizumab 300 mg every other week (EOW); lutikizumab 100 mg EOW; placebo (PBO) EW. The study drug was administered at baseline, Weeks 1-15; final efficacy was evaluated at Week 16.

Results:

153 patients were randomized across 54 sites. Most patients (70.6%) had severe baseline Hurley Stage 3 disease. While the response rate for lutikizumab 100 mg was 27.0%, both lutikizumab 300 mg EOW (59.5%) and 300 mg EW (48.7%) showed greater response rates over PBO (35.0%) in the primary endpoint, HiSCR 50 at Week 16, with a posterior probability of observing a positive treatment difference versus placebo of 98.5% and 89.3%, respectively. Greater efficacies were also observed in the secondary endpoint - achievement of pain NRS30 among baseline NRS ≥ 3 (34.5% and 34.8%, respectively, versus 12.9% of PBO) and an additional endpoint, HiSCR 75 (45.9% and 38.5%, respectively, versus 17.5% of PBO). All doses were generally safe and well-tolerated.

Conclusion:

In this hard-to-treat moderate-to-severe HS patient population that has failed anti-TNF therapy, lutikizumab 300 mg EW and 300 mg EOW showed positive results versus PBO.

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Abstract N°: 5203

Bimekizumab impact on draining tunnels: A dynamic assessment in patients with moderate to severe HS using pooled Week 48 results from BE HEARD I & II

Tzellos Thrasyvoulos* , Thrasyvoulos Tzellos[1, 2], Jennifer Hsiao[3], Martina Porter[4], Farida Benhadou[2, 5], Falk G. Bechara[2, 6], Melinda Gooderham[7, 8], Hidetoshi Takahashi[9], Christos C. Zouboulis[2, 10], Ingrid Pansar[11], Robert Rolleri[12], Nicola Tilt[13], Christopher J. Sayed[2, 14]

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a recurrent, inflammatory skin disease characterised by painful skin lesions in the folds of the skin and deep, dermal abscesses that join to form chronically draining tunnels (DTs; including fistulas and sinus tracts).1,2 DTs may be a large contributor to the significant impact of HS on patients' (pts) quality of life.3,4 Bimekizumab (BKZ) is a humanised IgG1 monoclonal antibody that selectively inhibits IL-17F in addition to IL-17A, which are both abundant in lesional skin.5,6 Here, we dynamically assess the effect of BKZ on DT outcomes over 48 weeks in BE HEARD I&II.7,8

Materials & Methods:

Pooled data from the randomised, double-blind, placebo (PBO)-controlled, multicentre BE HEARD I&II trials included an initial (Week 0–16) and maintenance (Week 16–48) treatment period. Adult pts were randomised 2:2:2:1 (initial/maintenance) to receive BKZ 320 mg every 2 weeks (Q2W)/Q2W, BKZ Q2W/every 4 weeks (Q4W), BKZ Q4W/Q4W or PBO/BKZ Q2W. Select concomitant rescue medications were permitted. Proportions of pts with ≥1 and ≥3 DTs at baseline achieving 0, 1–2, 3–5 or >5 DTs are reported as observed case data to Week 48.

Results:

Across both studies, 1,014 pts were randomised to BKZ Q2W/Q2W (N=288), BKZ Q2W/Q4W (N=292), BKZ Q4W/Q4W (N=288) or PBO/BKZ Q2W (N=146). At baseline in pts with ≥1 DT at baseline, proportions of pts with 1–2 DTs ranged from 34.2% (BKZ Q2W/Q4W) to 37.4% (BKZ Q2W/Q2W & BKZ Q4W/Q4W). Proportions of pts with 3–5 DTs ranged from 27.0% (BKZ Q2W/Q2W) to 36.9% (BKZ Q2W/Q4W), and proportions of pts with >5 DTs ranged from 28.8% (BKZ Q4W/Q4W) to 35.5% (BKZ Q2W/Q2W). In pts with ≥3 DTs at baseline, proportions of pts with 3–5 DTs ranged from 43.2% (BKZ Q2W/Q2W) to 56.1% (BKZ Q2W/Q4W), and proportions of pts with >5

DTs ranged from 43.9% (BKZ Q2W/Q4W) to 56.8% (BKZ Q2W/Q2W).

At Week 16, a higher proportion of pts with ≥1 DT at baseline receiving BKZ achieved 0 DTs vs the PBO group (BKZ Q2W/Q2W: 35.4%, BKZ Q2W/Q4W: 35.4%, BKZ Q4W/Q4W: 33.1% vs PBO: 24.7%). At Week 48, the proportions of pts on continuous BKZ that achieved 0 DTs increased to 45.5%, 48.8%, 46.8% respectively; similar trends were seen for the PBO/BKZ Q2W switchers (46.3%) (**Figure 1**).

Similarly for the group of pts with ≥3 DTs at baseline, at Week 16 a higher proportion of pts receiving BKZ achieved 0 DTs vs the PBO group (BKZ Q2W/Q2W: 24.6%, BKZ Q2W/Q4W: 26.8%, BKZ Q4W/Q4W: 21.7% vs PBO: 11.5%). At Week 48, the proportions of pts on continuous BKZ that achieved 0 DTs increased to 35.0%, 42.2% and 36.0% respectively. Pts who switched from PBO to BKZ Q2W achieved similar levels at Week 48 (38.0%), with a more favourable increase from Week 16 to Week 48 compared with the PBO/BKZ Q2W switchers with ≥1 DT at baseline (**Figure 2**).

Conclusion:

At Week 16, a higher proportion of pts with ≥1 DT at baseline achieved 0 or only 1–2 DTs when treated with BKZ vs PBO. Similar trends were seen for pts with ≥3 DTs at baseline.

For both pts with ≥1 DT at baseline and pts with ≥3 DTs at baseline, regardless of treatment arm, the proportions of pts who achieved 0 or 1–2 DTs increased to Week 48.

References:

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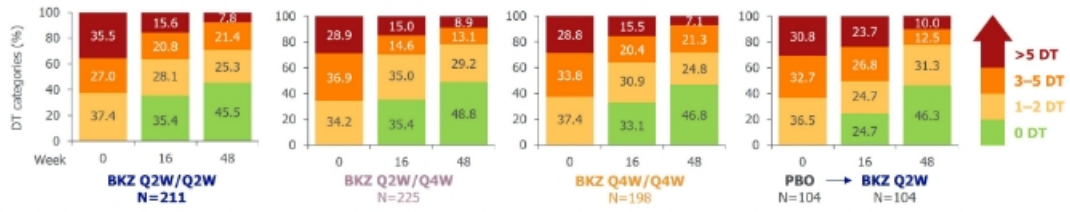
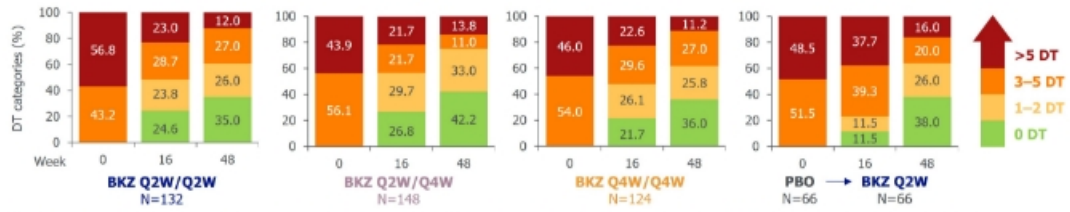
Figure 1. DT categories to Week 48 for patients with baseline DT count ≥1 (OC)



Randomised set, N=1,014; included patients had a baseline DT count ≥1. Treatment switch after the initial treatment period for the PBO/BKZ 320mg Q2W group started at Week 16.
BKZ: bimekizumab; DT: draining tunnel; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks.

Figure 2. DT categories to Week 48 for patients with baseline DT count ≥3 (OC)



Randomised set, N=1,014; included patients had a baseline DT count ≥1. Treatment switch after the initial treatment period for the PBO/BKZ 320mg Q2W group started at Week 16.
BKZ: bimekizumab; DT: draining tunnel; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks.

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Abstract N°: 5268

Global perspective of adult acne in association with sensitive skin through a multiethnic online survey

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Introduction & Objectives: Acne is one of the most common inflammatory skin conditions, on a global scale being the eight most frequent disease, and affects individuals of all ethnicities, races, genders, and ages. Primarily affecting seborrheic areas, acne occurs due to hair follicle obstruction and often exhibit inflammation and compromised skin barrier function, common grounds for increased skin sensitivity. Sensitive skin syndrome is a frequent complaint in the general population, defined as a hyperreactive state of the skin to innocuous external stimuli expressed by unpleasant sensations. It may be associated with underlying impaired skin barrier or neuro-inflammation, causing acne in subjects with sensitive skin to be more challenging. This study aimed to investigate adult acne in association with sensitive skin and explore their related attributes in individuals worldwide.

Materials & Methods:

An online survey was completed by 16641 individuals from 12 countries in the 5 world regions: USA, Brazil, Germany, India, China, Philippines, Australia, Nigeria, South Africa, Kenya, Tunisia, Egypt. The participants were selected based on nationally representative quota aged 18 to 75 years old (interlocked age and gender). Collected data addressed physiological, psychological, sociocultural, lifestyle and environmental and included sensitive skin and acne experience and history. The prevalence and overall severity of skin sensitivity was assessed through direct querying while the associated symptoms and their intensity through Sensitive Scale-10 questionnaire, a validated assessment tool for sensitive skin.

Results:

On average, 21% (n=3498) of the overall study population self-declared experiencing acne within their lifetime. The prevalence variation ranges from 10% in China to as high as 30% in India, Brazil and Egypt. Among this acne population, 66% self-declared having sensitive skin (“sensitive” to “very sensitive”), indicating a high incidence rate of Acne with Sensitive (AS) skin profile. The AS population experience on the face a greater severity of skin irritation (average of 6.4 on a 0-10 scale) than the Acne with Non-Sensitive skin (ANS - average of 3.3) and express higher rate of symptoms such as itch (60%), redness (39%) and burning (28%) related to the ANS population (46%, 16%, 12% respectively group). Furthermore, AS displays higher risk of other skin conditions, notably eczema (22%) and hyperpigmentation (21%) versus ANS (10% and 12% respectively). Adulthood face acne is more widespread in sensitive skin (66% declare to “still have it” and “partially resolved”) vs. ANS (31%), and steadily decreases with age by 30% between 18-54 years old. Ongoing acne (declaring to “still have it”) is exacerbated in females (66%) vs. males (34%), and in darker (25%) vs. lighter skin tones (13%).

Conclusion:

There is a high incidence rate of acne with sensitive skin, that is associated with greater severity of skin irritation, higher prevalence of other skin conditions and adulthood incidence, notably correlated with age, gender and skin tone. Addressing acne and sensitive skin association is essential to develop effective prevention strategies or improve their management setting and outcomes. This data encourages future research focused on young children and adolescents, which display the highest incidence of acne, to better understand the pathophysiology of acne with sensitive skin as a unique dermatologic experience.

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Abstract N°: 5271

Dermal patch: acne-prone skin management in modern dermatology

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Introduction & Objectives:

Acne affects >80% of adolescents and young adults. Even in mild forms, acne has a detrimental psychological effect. Around 75% of people with facial acne expect to see fast results from overnight solutions and 50% show insufficient compliance which leads to frustration and dissatisfaction. Local and quick delivery of ingredients via dermal cutaneous patches represent an alternative solution to help subject compliance in acne-prone skin. The objective of the present studies is to evaluate the efficacy and the tolerability of a single use dermal patch containing Salicylic Acid, Canadian Willowherb and *Centella Asiatica*** applied on papules in acne-prone subjects.

Materials & Methods:

Study 1: 42 adults (18 -34 y.o, male & female) with acne prone skin were included in an open comparative randomized clinical study. At the inclusion, subjects had a minimum of 4 papules at the same stage on the face. 3 papules were treated with the dermal patch respectively for 4, 6 and 8 hours. 1 papule, without any patch was used as the untreated control. All volunteers with acne treatment during the study and 3 days before the inclusion visit were excluded and subjects were requested to avoid the application of any cosmetic products other than the usual cleanser or water. Efficacy was assessed using clinical grading (4-point scale), self-assessment scoring, satisfaction questionnaire and 3D pictures with a digital dermoscope (C-Cube).

Study 2: A consumer test was conducted on 61 subjects with at least 2-3 active acne lesions (male & female, 18-60 y.o). Efficacy was based on a questionnaire filled out after 4, 6 and 8 hours of dermal patch application.

Results:

The dermal patch was well tolerated with no adverse reactions reported. Compared to baseline, the dermatologist scored a statistically significant reduction of erythema intensity by -28%, -30% and -23%, inflammatory appearance by -25%, -29% and -26%, as well as volume by -23%, -29% and -16% for the treated papules respectively after 4, 6 and 8 hours (Wilcoxon test, $p<0.05$). No significant improvement was observed on the non-treated papule, and improvements seen with the dermal patch were statistically significant vs non-treated papule. 3D pictures illustrated these results.

Self-evaluation showed a statistically significant reduction of 20% and 27% in inflammatory appearance, 18% and 19% in erythema intensity and 20% and 26% in relief intensity for the papules treated for 4 and 8 hours respectively in comparison with the control lesion (Wilcoxon test $p<0.005$). In the consumer test, after 4hours, 89% of subjects agreed that the dermal patch helped to sooth emerging spot and 82% said that the volume of the pimple looked reduced. After 6hours, 80% of the subjects agreed that dermal patch reduced redness, 85% agreed that the volume of the pimple looks reduced and that the patch helped to shrink the spot. Globally, 97% of the subjects agreed that the dermal patch was comfortable and easy to use without any irritation.

Conclusion:

Acne solutions with fast and visible improvements are expected in order to satisfy consumers. This clinical study and consumer test demonstrated the very good tolerability and quick efficacy of a dermal patch containing

targeted ingredients in the local treatment of acne prone lesions.

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Abstract N°: 5297

Bimekizumab impact on patient-reported outcomes in patients with moderate to severe hidradenitis suppurativa: Pooled Week 48 results from BE HEARD I&II

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Introduction & Objectives:

Compared to other chronic skin diseases, hidradenitis suppurativa (HS) has a substantial negative effect on patients' lives.1 Debilitating symptoms, such as intense pain, fatigue, draining and odour, lead to an overall low quality of life (QoL).1,2 Bimekizumab (BKZ) is a humanised IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A, and has previously shown clinical efficacy in the phase 3 BE HEARD I&II trials.3,4 Here, the impact of BKZ on patient-reported outcomes (PROs) in patients with moderate to severe HS in BE HEARD I&II is reported.

Materials & Methods:

Pooled data from two identically designed, randomised, double-blind, placebo (PBO)-controlled, multicentre trials (BE HEARD I&II) included an initial (Weeks 0–16) and maintenance (Weeks 16–48) treatment period. Adult patients were randomised 2:2:2:1 (initial/maintenance) to receive BKZ 320 mg every 2 weeks (Q2W)/Q2W, BKZ Q2W/every 4 weeks (Q4W), BKZ Q4W/Q4W or PBO/BKZ Q2W. HS Symptom Questionnaire (HSSQ; each symptom item scored on a 0–10 numeric rating scale) mean values are reported to Week 48 for all items: skin pain, itch, smell or odour and drainage or oozing. Proportions of patients achieving minimal clinically important difference (MCID) for Dermatology Life Quality Index (DLQI; scored 0–30; improvement from baseline score ≥4) were reported at Week 16 and Week 48. Data are reported as observed case (OC).

Results:

Overall, 1,014 patients were randomised to BKZ Q2W/Q2W (N=288), BKZ Q2W/Q4W (N=292), BKZ Q4W/Q4W (N=288), PBO/BKZ Q2W (N=146). Within each of the four HSSQ items, similar baseline scores were observed across treatment groups (**Figure 1**). At Week 16, for skin pain, itch, smell or odour and draining or oozing, greater improvements (i.e. score reduction) from baseline over time were seen in BKZ treated groups compared to PBO-treated patients (**Figure 1**). HSSQ item scores were substantially reduced from Week 16 to Week 48 in patients who switched from PBO to BKZ treatment at Week 16; further decreases were still observed in those continually treated with BKZ (**Figure 1**). At Week 16, MCID in DLQI was achieved in a numerically greater proportion of BKZ treated patients overall (BKZ Q2W/Q2W: 64.6%; BKZ Q2W/Q4W: 54.9%; BKZ Q4W/Q4W: 63.5%) versus those

receiving PBO (PBO/BKZ Q2W: 49.1%) (**Figure 2**). At Week 48, patients continually treated with BKZ achieved MCID in DLQI in an even greater proportion of patients compared to Week 16, whilst patients who switched from PBO to BKZ at Week 16 attained similar proportions (BKZ Q2W/Q2W: 73.4%; BKZ Q2W/Q4W: 63.5%; BKZ Q4W/Q4W: 74.5%; PBO/BKZ Q2W: 76.5%) (**Figure 2**).

Conclusion:

At Week 16, patients treated with BKZ achieved a reduction from baseline of HS symptoms: skin pain, itch, smell or odour, and drainage or oozing. Additionally, clinically meaningful improvements from baseline in healthrelated QoL were observed. Such improvements were maintained or slightly improved through Week 48. After switching from PBO to BKZ, patients experienced improvements in PRO responses from Week 16 to Week 48 and achieved comparable outcomes at Week 48 to patients continually treated with BKZ.

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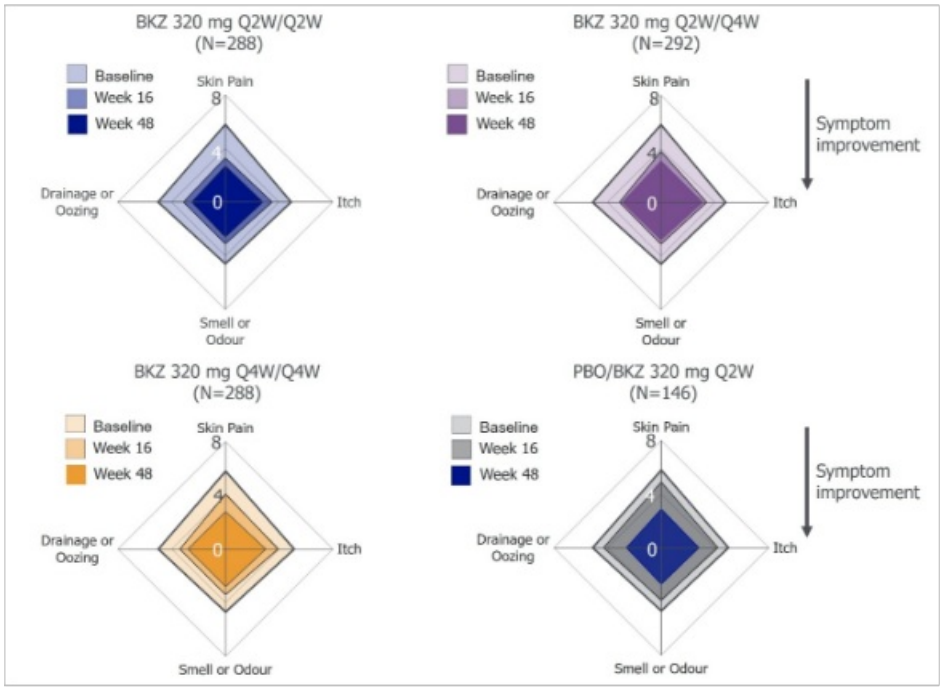
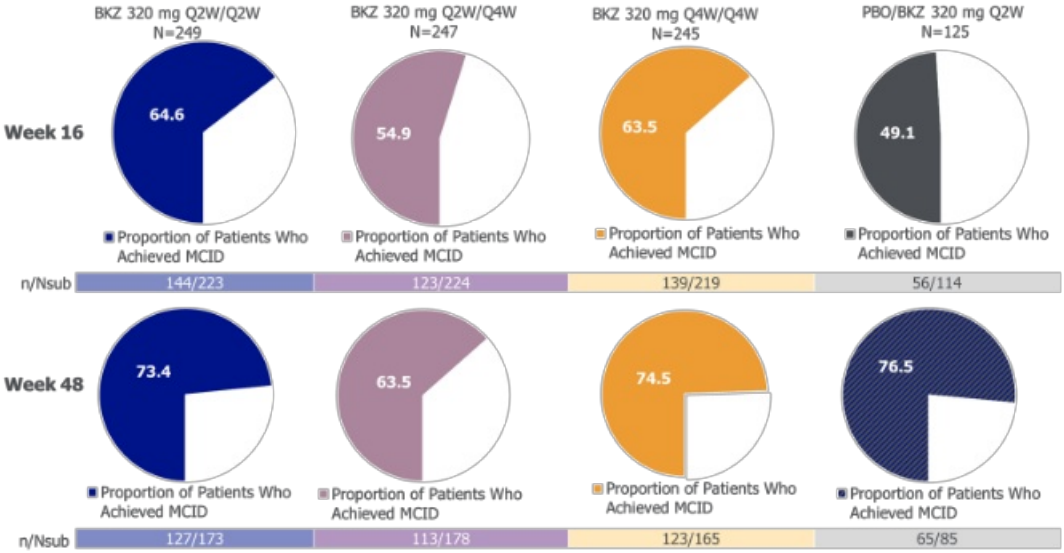
Figure 1. HSSQ mean scores by item at baseline, Week 16 and Week 48 (OC)



Total number of patients initially randomised to each treatment group are displayed within the figure, n values for HSSQ assessment for BKZ Q2W/Q2W, BKZ Q2W/Q4W, BKZ Q4W/Q4W and PBO/BKZ Q2W were at baseline: 285, 284, 285, 144; Week 16: 256, 262, 257, 135; and Week 48: 203, 209, 193, 101, respectively. BKZ: bimekizumab; HSSQ: Hidradenitis Suppurativa Symptom Questionnaire; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks.

Figure 2: Proportion of patients achieving MCID for DLQI at Week 16 and Week 48 (OC, %)



MCID in DLQI is defined as the improvement of DLQI score from baseline score of 4 or more. Only participants with a baseline DLQI score of 4 or greater were included. OC, n/Nsub denominator represents number of patients with a DLQI total score assessment in the given week, and percentages were calculated accordingly. BKZ: bimekizumab; DLQI: Dermatology Life Quality Index; MCID: minimal clinically important difference; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks.

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Abstract N°: 5314

Steatocystoma Multiplex Successfully Treated by a Long-Term Low- Dose Oral Isotretinoin - a Case Report

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Introduction & Objectives:

A 30-year-old male was referred to our Dermatologic Clinic by a practical dermatologist because of a supposed diagnosis of acne lasting for 8 years and worsening during the last month. A treatment with peroral and local antibiotics was not sufficient. The patient was healthy with no permanent medication, family history was positive for cystic acne in both parents. Objectively, on a face above the left eye, a rose bumpy arch up to 3 centimetre in the diameter was present. On the neck, small nodules- cysts 3-10 milimetre in the diameter could be seen, without inflammation. On the chest, cysts and small nodules were present. An excision of one cyst on the right side of the neck and histological analysis were done. Usual tests before the beginning of the peroral isotretinoin therapy were performed.

Materials & Methods:

A histological examination revealed steatocystoma multiplex. All blood tests were within normal limits. The treatment with a low-dose of oral isotretinoin was started (0.3 mg/ kg/ day). Local anti-inflammatory treatment on inflamed lesions was added. Check-ups were performed in a one-month interval. The clinical stage and the side effects of the oral isotretinoin treatment were monitored.

Results:

Cysts of steatocystoma multiplex have been diminishing very slowly. The dose of isotretinoin was decreased to 0.2 (after 10 months) and later (after 20 months) to 0.1 mg/ kg/ day The isotretinoin therapy has been very well tolerated, only some lip dryness has been present up till now. The big bumpy arch on the face was excised. Only small cystic formations are present now. A prolonged low-dose-isotretinoin treatment is planned. The patient is very satisfied.

Conclusion:

Steatocystoma multiplex is a rare condition. It is a benign but cosmetically very unpleasent disease, an inflammation of formations can be present. It can be misdiagnosed as acne nodulocystica. No improvement during a lifetime happens. Only a few treatment possibilities with a low effect are known. With this casuistics, we want to point out that this diagnosis is necessary to be considered. Besides, a treatment with a low dose of isotretinoin can bring a possible effect, but the long-time treatment is necessary.

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Abstract N°: 5324

Disease perception, treatment seeking behavior and psychosocial impact of acne vulgaris amongst university students – a cross sectional study.

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Introduction & Objectives:

Acne is a common chronic inflammatory disease. Misconceptions hinder effective management. This study aimed to explore disease perception, treatment seeking behaviour and psychosocial impact of acne.

Materials & Methods:

A cross-sectional study was conducted in four universities. A self-administered questionnaire was developed and validated. Clinical examination determined acne severity using Comprehensive Acne Severity Scale (CASS) and the Cardiff Acne Disability Index (CADI) questionnaire assessed psychosocial impact.

Results:

400 students with acne aged 20 ±1.62 years participated, 62.5% were females. Self-perceived acne severity was consistent with CASS in 54.4%, 37.5% perceived it as worse. Majority (80.5%) correctly recognized acne as a disease while beliefs about its chronicity varied. Aggravating factors reported were food (92.8%), genetic predisposition (92.8%), stress (91.3%), hygiene (86.3%), and menstruation (84.8%). Acne information sources were family (79.7%), online social media platforms (60.2%) and friends (58.5%). Consulting a doctor was significantly associated with correct perception of acne, severe disease and higher psychosocial impact. Cost was the commonest deterrent for seeking treatment (63.8%) and discontinuation of treatment (43.2%). Psychosocial impact was predominantly mild (71%). CADI domains most affected were feelings and psychological state. Predictors for higher psychosocial impact were objective [OR 2.29 (95% CI 1.45, 3.61)] and self-perceived acne severity [OR 4.83 (95% CI 2.79, 8.35)].

Conclusion:

Misconceptions on acne as a disease were not prevalent, aggravating factors other than food were correctly identified. Common sources of information may further perpetuate misconceptions. Financial barriers to treatment should be addressed especially in patients with severe acne and psychosocial impacts.

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Abstract N°: 5338

Innovative Treatment of Active Acne Vulgaris by Chemical Peeling Using TCA 35% and 88% Lactic Acid

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Introduction & Objectives:

The pathogenesis of acne vulgaris is multifactorial, and therapy can be directed at many of these factors, singly or in combination. There are different modalities of treatment of active acne vulgaris but they are often long lasting which could not be accepted by many patients. This study is to evaluate the effectiveness of chemical peeling using 35% TCA solution and 88% Lactic Acid solution in the treatment of active acne vulgaris.

Materials & Methods:

This clinical, interventional, therapeutic study was done at the Department of Dermatology, Baghdad Teaching Hospital during the period from January 2021 to March 2022. The patients were divided into 2 groups, the 1st group were 18 patients with active acne, they were 10 (55.6%) females and 8 (44.4%) males, ages ranged from 15 to 35 years, 12 patients were associated with acne scars. Chemical peeling with 35% TCA used in this group in one session regarding active acne and three sessions in patients with scarring.

The 2nd group were 25 patients with active acne, 15 (60%) females and 10 (40%) males, ages ranged from 16-36 years, 15 patients were associated with acne scars. Three sessions peels with 88% lactic acid solution used in this group in 2 weeks apart for patients with active acne with or without scarring.

History & examination were performed for all patients regarding all demographic data related to the disease. Scoring for active acne vulgaris & acne scar was done for each case before & after peeling to evaluate the severity of acne lesions and scarring. All patients were skin types III and IV. Patients were followed up every 2 weeks for 12 weeks after starting therapy & every 4 weeks for 12 weeks after stopping the treatment to watch improvement, side effects and relapse.

Results:

Regarding 1st group (35% TCA) scoring for active acne including papules & pustules showed highly significant reduction after 2 weeks of therapy (p<0.0001), while in the acne scar scoring reduction ranged from 26% to 50% in 2 patients and 50% to 75% in 2 patients while more than 75% in 8 patients were with significant reduction (p=0.000002). All patients had full satisfaction with the results of operation. PIH was observed in 2 patients few weeks after peeling but follow-up showed complete clearance of pigmentation with lightening and tightening of skin. No relapse of active lesion was recorded after 12 weeks follow-up. In the 2nd group (88% Lactic Acid), scoring for active acne vulgaris including papules and pustules showed highly significant reduction after 2 weeks of therapy (p=0.0001), after 4 weeks (p=0.0001) and after 6 weeks (p=0.0001), with percent reduction 87.2% for papules and 94% for pustules after end of sessions while after 3 months follow up the reduction rate for papules 93.8% (p=0.001) and for pustules 97.6% (p=0.0001). While the scarring reduction was moderate in 3 (20%) patients, marked in 3 (20%) patients and excellent in 9 (60%) patients with significant reduction (p=0.002). All patients had full satisfaction

about the results of peeling. PIH was observed few weeks after peeling but follow up for 3 months showed complete clearance of pigmentation with lightening and tightening of skin.

Conclusion:

Chemical peeling by TCA 35% and 88% Lactic Acid are a cost-effective modes of therapy for active acne vulgaris and acne scar with low down time in patients with dark complexion.

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Abstract N°: 5410

Engagement of acne-related social media influencers and bloggers for patients with acne under treatment: a worldwide study in 20 countries : Results of the ALL Project.

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Introduction & Objectives:

Social networks have emerged as pivotal platforms for dermatological and therapeutic guidance. The influence of social media personalities is increasingly prominent in disseminating health-related information and shaping health-related behaviors. It is particularly pertinent to examine the impact of interactions with these influencers during periods when individuals are more susceptible to influence. Currently, there is limited data on the importance of engaging with influencers specializing in acne content for patients undergoing acne treatment. This study aims to assess the frequency of engagement with Acne-Related Social Media Influencers (ASMIs) among acne patients, analyze the effects of ASMIs on concern levels and adherence to treatment, and evaluate satisfaction with dermatological care

Materials & Methods:

Patients with acne were selected through an online survey of the general population over the age of 16 in 20 countries worldwide. Acne was self-reported by patients on the basis of a doctor's diagnosis. The questionnaire was developed in partnership with patient organisations and continues to focus on the patient's experience. A comparison was made between those who did and did not use the Internet to obtain information or discuss their condition with ASMI to assess predictors of engagement with ASMI such as socio-demographic and clinical characteristics, type of treatment, fear of side effects…

Results:

A population of 4441 patients with acne [as a unique skin disease] was identified 1850 (41.6%) men and 2591 (58.3%) women (mean age 33.6+/-13.2. min 16-85 years).

687 (15.5%) of the 4421 respondents were ASMI users: 1811(26.3%) had consulted a dermatologist in the previous 12 months [No-ASMI: 25.3%] . Over the same period, 21.7% (n = 149) said they had not had any treatment [No-ASMI: 32.2%] and 54.3% (n = 373) said they had received at least one medicinal treatment [No-ASMI: 50.5%] and 35.8% (n = 246) declared that they had had at least one dermo cosmetic treatment. [No-ASMI: 21.0%]

Comparison with No-ASMI, the ASMI users were younger (32,29 (± 12,5) vs 33,84 (± 13,34), $p \leq 0.004$). The prevalence was higher in women (17.9% vs 12.1%, $p \leq 0.05$. In multivariate analysis, being young (less than 40 years old) (OR=1.23, [1.0 ; 1.51], p= 0.04), fearing the side effects of treatment or being tired of them (OR=1.32, [1.09 ; 1.61], p= 0.004), using dermo cosmetics (OR=1.91, [1.58 ; 2. 3], p <0.0001), being a woman (OR=1.43, [1.19 ; 1. 72], p= 0.0001), using meditation (OR=1.56, [1.16 ; 2.09], p= 0.003), or yoga (OR=1.67, [1.27 ; 2.19], p= 0.0002), were associated with "Acne-Related Social Media Influencers"

.Conclusion:

This study is the first to explore engagement with ASMI among acne patients. It’s important to recognize that influencers possess a unique capacity to affect the emotions, thoughts, and behaviors of their followers, both consciously and unconsciously. Given the considerable physical, emotional, psychological, and social hurdles, including feelings of isolation, encountered by acne patients, they are particularly susceptible to the potential influence of social media influencers. Further research is imperative to thoroughly comprehend the substantial impact of acne patients’ engagement with social media influencers.

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Abstract N°: 5459

Combination of PRP, chemical peeling and IPL in controlling Acne – A multimodality approach

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[1]Antiage Lifestyle Clinic, Lahore, Pakistan

A common skin condition, Acne Vulgaris is a disease affecting the pilosebaceous glands. The common occurrence is on the face, back and arms but it can present in other areas as well. The problem with treating acne is the long-term treatment that leads to less compliance and frustration amongst patients. Platelet rich plasma is an autologous concentration of platelets. The growth factors released from activated platelets have the ability in controlling inflammatory process, angiogenesis, and wound healing. Chemical peels are exfoliative agents having the ability to regenerate healthy skin and have been used to treat acne for decades. Intense pulse light has an antibacterial ability and controls the erythema.

Aim: The aim of the study was to evaluate the efficacy of combining PRP, chemical peeling and IPL in patients who were noncompliant to topical or oral medication.

Methods: 5 patients with inflammatory acne lesions were included. All these patients were noncompliant to the medication either because of their own reasons or side effects of the medication. 4 females and 1 male patient between the age of 18 to 30 years were part of the treatment. In total 6 sessions were done at a weekly interval. In the first, third and sixth session IPL was done followed by chemical peeling and then PRP microneedling. In the second, fourth and fifth session IPL followed by PRP microneedling were done. Pictures were taken on the first and sixth session to make a comparison.

Results: There was a significant improvement in all 5 patients. The satisfaction rate of the patients was good.

Conclusion: A combination of modalities is an effective way to handle acne. In clinic procedures helps patient compliance and gives them an objective way of seeing improvement. Alone or in combination with topical or oral medication a multimodality treatment in the clinics can help the patients fight acne in a better form. Larger, randomized clinical trials are need

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Abstract N°: 5460

CHEMABRASION: TREATMENT OF DIFFICULT ACNE AND ACNE SCARRING

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Introduction & Objectives:

Acne affects more than 70% of adolescents with variable severity, having increased sebum excretion rate (SER), Obstructive horny plugs, inflammation, cysts, pigmentation and scarring. This study is to treat acne and scarring with a new idea where microdermabrasion is combined with immediate chemical peeling called CHEMABRASION.

Severity of acne is directly proportional to SER. Raised SER is often due to end organ hypersensitivity i.e sebaceous glands, mostly at normal levels of circulating androgens. Our hypothesis is that the end organ is attacked directly and selectively in this procedure to cause partial destruction or shrinkage of sebaceous glands. So chemabrasion causes a decrease in no. and size of sebaceous glands.

Materials & Methods:

A study of chemabrasion was done over 100 patients, 13 males,87 females. 1ncIusion and exclusion criteria,result criteria and study Performa with follow-up details was formed.Before and after photos taken.AII patients had 4-5 chemabrasion sessions with interval of 10-14 days.Before each session skin of face dried intensely for better abrading. During each session microdermabrasion done with aluminum oxide crystals followed by immediate chemical peeling. Topical antibiotic prescribed. Most patients healed in 2-3 days.

Results:

All Patients had remarkable improvement. Number of new lesions and greasiness of skin (SER) decreased (measured by casual level method). Open Pores and scars

improved much.

Proposed result criteria:

Complete response(80-100%):rare new lesions in 12 months,obvious decrease in SER.

Partial response(50-80%):few small lesions 4-5 per month,healed fast without pigmentation or scarring,SER decreased.

No response(less than 50%):new lesions continued,SER same.

Our results were:CompIete response in

77%,PartiaI response in 23%, No response in 0%.

Conclusion:

Chemabrasion proved safe and effective treatment for acne and acne scarring. The main point is that the microdermabrasion produces controlled removal of skin layers in successive sessions and chemical peeler (Jessner’s solution) absorbed selectively through abraded follicular openings causes partial destruction

of sebaceous glands.

Ref:

https://biomedgrid.com/pdf/AJBSR.MS.ID. 000702.pdf

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Abstract N°: 5492

Bimekizumab effect on the need for concomitant rescue interventions by HiSCR response level in patients with moderate to severe hidradenitis suppurativa from BE HEARD I&II

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, systemic, inflammatory skin disease characterised by deep, painful lesions that negatively impact patients' quality of life.1 These lesions are difficult to treat and require a multifaceted treatment approach, including the need for rescue interventions alongside conventional therapy.1

Bimekizumab (BKZ) is a monoclonal IgG1 antibody that inhibits interleukin (IL)-17F in addition to IL-17A.2 Here, the relationship between increasingly stringent HS Clinical Response (HiSCR) levels achieved with BKZ treatment and the proportion of patients not requiring rescue concomitant interventions is investigated.

Materials & Methods:

Pooled data are presented from the randomised, double-blind, placebo (PBO)-controlled, multicentre, phase 3 BE HEARD I&II trials maintenance treatment period (Weeks 16–48).3,4 Adult patients were randomised 2:2:2:1 (initial/maintenance treatment period) to receive BKZ 320 mg every 2 weeks (Q2W)/Q2W, BKZ Q2W/every 4 weeks (Q4W), BKZ Q4W/Q4W or PBO/BKZ Q2W. Here, data are reported individually for all arms where patients were randomised to receive BKZ at baseline, with data also pooled across these arms (BKZ Total).

These BKZ-randomised patients were grouped by achievement of mutually exclusive HiSCR levels (<50% improvement from baseline [<HiSCR50]; 50–<75% improvement [HiSCR50–<75]; 75–100% improvement [HiSCR75–100]) at Week 16.

The incidence of patients not requiring any concomitant rescue interventions for HS during the maintenance treatment period, including medical (antibiotics, analgesics) and procedural (incision/drainage, intralesional triamcinolone injection) interventions, are reported. Data are reported as observed case (OC).

Results:

Overall, the 868 patients randomised at baseline to BKZ (BKZ Total group) were assigned to BKZ Q2W/Q2W (N=288), BKZ Q2W/Q4W (N=292) or BKZ Q4W/Q4W (N=288) in BE HEARD I&II.

In the BKZ Total group, 76.0%, 83.2% and 89.1% of patients in the HiSCR<50, 50–<75 and 75–100 bands,

respectively, did not receive a rescue intervention in the maintenance treatment period (Weeks 16–48), demonstrating a numerical increase with increasing HiSCR bands (**Figure**).

Comparable trends across HiSCR bands were observed over the same period in patients receiving BKZ Q2W/Q2W (79.8%, 90.0% and 90.9%), BKZ Q2W/Q4W (75.0%, 78.3% and 89.0%) or BKZ Q4W/Q4W (73.3%, 81.4% and 87.1%) in the HiSCR<50, 50–<75 and 75–100 bands, respectively (**Figure**).

Similar trends were also observed moving from the lowest to highest HiSCR bands when separating into any medical or procedural interventions (**Table**).

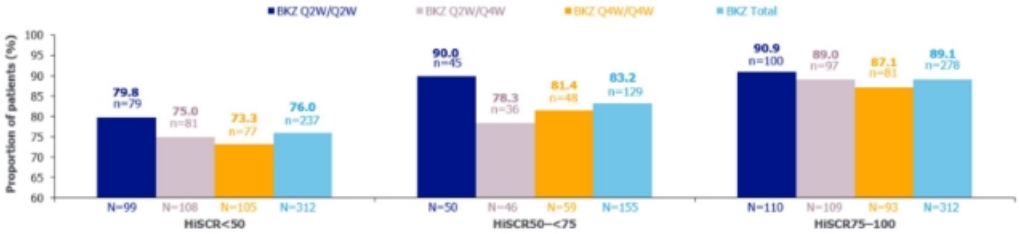
Conclusion:

Overall, the majority of BKZ-randomised patients did not require any concomitant rescue medical or procedural interventions during the maintenance treatment period (Weeks 16–48). The proportion of patients not requiring concomitant rescue interventions increased with increasingly stringent HiSCR bands.

These data highlight the additional value to patients of a decreased need for concomitant rescue interventions when they achieve higher HiSCR response levels.

References:

Figure. Patients not requiring any concomitant rescue interventions by HiSCR level[a] through Weeks 16–48 (OC[b])



[a] HiSCR banding at Week 16; [b] N represents the total number of patients achieving each HiSCR band and n represents the number of patients not requiring an intervention within each HiSCR band. BKZ-randomised patients (BKZ Total, N=868); all patients randomised to receive BKZ at baseline (Week 0) are pooled in the BKZ Total group. Any intervention includes all patients who had ≥1 rescue intervention during the maintenance treatment period (Weeks 16–48). BKZ: bimekizumab; HiSCR: Hidradenitis Suppurativa Clinical Response; HiSCR<50/50–<75/75–100: <50/50–<75/75–100% change from baseline in abscess and inflammatory nodule count with no increase from baseline in abscess or draining tunnel count; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks.

1. Zouboulis C. J Eur Acad Dermatol Venereol 2015;619–44; **2.** Adams R. Front Immunol 2020;11:1894; **3.** BE HEARD I: www.clinicaltrials.gov/study/NCT04242446; **4.** BE HEARD II: http://www.clinicaltrials.gov/study/NCT04242498.

Table. Patients not requiring any medical or procedural rescue interventions by HiSCR level[a] through Weeks 16–48 (OC[b])

n/N (%)	BKZ Q2W/Q2W N=288	BKZ Q2W/Q4W N=292	BKZ Q4W/Q4W N=288	BKZ Total N=868
No medical intervention				
HiSCR<50	83/99 (83.8)	86/108 (79.6)	81/105 (77.1)	250/312 (80.1)
HiSCR50–<75	47/50 (94.0)	39/46 (84.8)	50/59 (84.7)	136/155 (87.7)
HiSCR75–100	103/110 (93.6)	101/109 (92.7)	86/93 (92.5)	290/312 (92.9)
No procedural intervention				
HiSCR<50	88/99 (88.9)	95/108 (88.0)	93/105 (88.6)	276/312 (88.5)
HiSCR50–<75	47/50 (94.0)	40/46 (87.0)	54/59 (91.5)	141/155 (91.0)
HiSCR75–100	107/110 (97.3)	103/109 (94.5)	86/93 (92.5)	296/312 (94.9)

[a] HiSCR banding at Week 16; [b] N represents the total number of patients achieving each HiSCR band and n represents the number of patients not requiring an intervention within each HiSCR band. BKZ-randomised patients (BKZ Total, N=868); all patients randomised to receive BKZ at baseline (Week 0) are pooled in the BKZ Total group. Medical interventions include rescue analgesics or rescue systemic antibiotics as determined by the principal investigator. Procedural interventions include incision/drainage and intralesional triamcinolone injection. BKZ: bimekizumab; HiSCR: hidradenitis suppurativa Clinical Response; HiSCR<50/50–<75/75–100: <50/50–<75/75–100% reduction in the total abscess and inflammatory nodule count with no increase from baseline in abscess or draining tunnel count; OC: observed case; Q2W: every 2 weeks; Q4W: every 4 weeks.

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Abstract N°: 5509

Bimekizumab impact on flare in patients with moderate to severe hidradenitis suppurativa: Pooled Week 48 results from BE HEARD I&II

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease characterised by recurrent nodules, abscesses and skin tunnels, with patients (pts) often experiencing periodic worsening of symptoms, known as flares.1,2 Achieving disease control is important to reduce the frequency and severity of flares.1,2 Bimekizumab (BKZ) selectively inhibits IL-17F in addition to IL-17A and has previously demonstrated its efficacy in pts with HS, in the phase 3 BE HEARD I&II trials.3,4 Here, the impact of BKZ on flares in pts with moderate to severe HS over 48 weeks (wks) in BE HEARD I&II is presented.

Materials & Methods:

Data were pooled from the BE HEARD I&II trials. Adult pts were randomised 2:2:2:1 (initial/maintenance) to receive BKZ 320 mg every 2 wks (Q2W)/Q2W, BKZ Q2W/every 4 wks (Q4W), BKZ Q4W/Q4W or PBO/BKZ Q2W. Flare at a visit was defined as ≥25% increase in abscess and inflammatory nodule (AN) count with an absolute increase in AN count of ≥2 relative to baseline. The proportion of pts who experienced a flare at the given visit (single point) and the cumulative proportion (any visit up to and including the given timepoint) of pts who experienced a flare over 48 wks are reported. The cumulative proportion of pts who remained flare-free was calculated as 100% minus the cumulative proportion who did experience a flare. Data are reported as observed case (OC).

Results:

Overall, 1,014 pts were randomised to BKZ Q2W/Q2W (N=288), BKZ Q2W/Q4W (N=292), BKZ Q4W/Q4W (N=288), or PBO/Q2W (N=146) in BE HEARD I&II. At every visit until and including Wk 16, fewer BKZ-treated pts experienced flares than PBO-treated pts. At Wk 16: BKZ Q2W/Q2W (4.6%) n=12/259, BKZ Q2W/Q4W (6.5%) n=17/263 and BKZ Q4W/Q4W (9.3%) n=24/257 vs PBO (17.0%) n=23/135 (**Figure 1**). After switching from PBO to BKZ at Wk16, the number of pts with a flare decreased rapidly, to the level observed in those continuously treated with BKZ from baseline, through Wk 48 (**Figure 1**). A substantial proportion of pts continuously treated with BKZ remained flare-free by Wk 48: BKZ Q2W/Q2W (83.4%) n=236/283, BKZ Q2W/Q4W (81.7%) n=236/289 and BKZ Q4W/Q4W (79.8%) n=225/282 (**Figure 2**). After switching from PBO to BKZ Q2W at Wk 16, the proportion of pts who remained flare-free to Wk 48 was sustained (**Figure 2**).

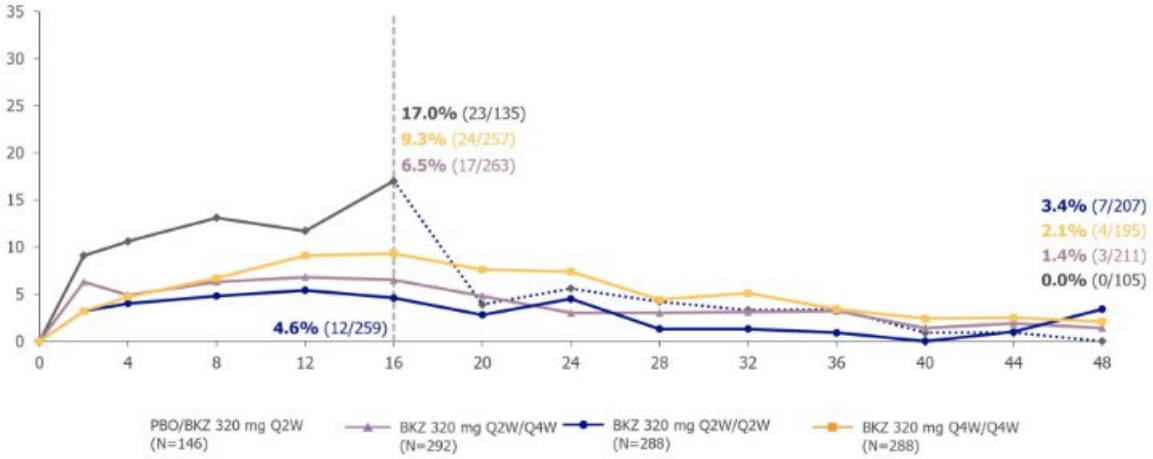
Conclusion:

Overall, fewer pts treated with BKZ experienced flares to Wk 16 compared to pts treated with PBO. After switching from PBO to BKZ the proportion of pts who experienced a flare at a given visit was reduced rapidly, with results comparable to pts receiving continuous BKZ from baseline. In this OC analysis, ~80% of pts continuously treated with BKZ from baseline were flare-free at Wk 48. After switching from PBO to BKZ, pts without flares sustained their flare-free status. In summary the analysis indicates that BKZ is effective in reducing flares of HS.

References

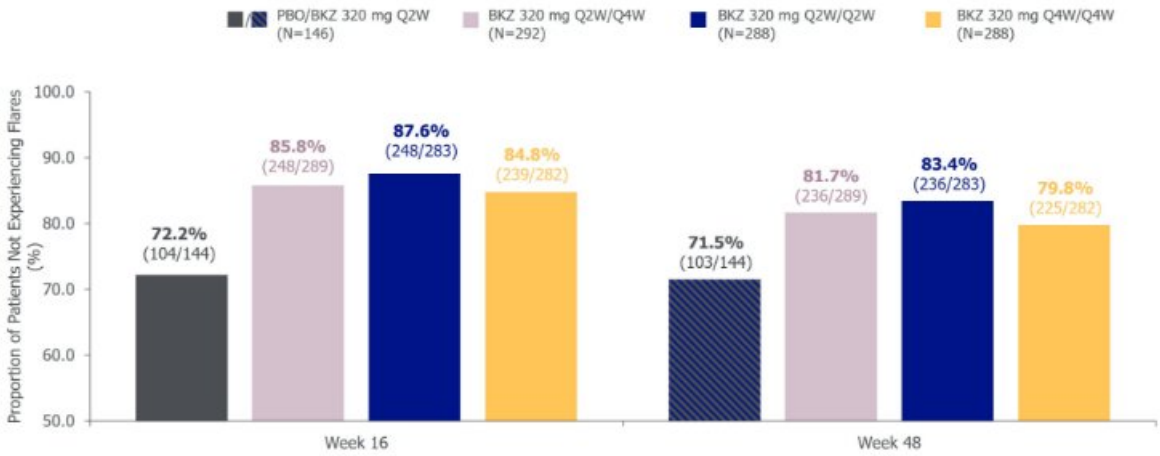
1. Masson R. Skin Appendage Disord 2023; epub; https://doi.org/10.1159/000536094;**2.** Kirby JS. Br J Dermatol 2020; 182;24–28; **3.** BE HEARD I: https://www.clinicaltrials.gov/study/NCT04242446; **4.** BE HEARD II: https://www.clinicaltrials.gov/study/NCT04242498.

Figure 1. Proportion of patients who experienced a flare at a given visit (OC)



Flare was defined as ≥25% increase in AN count with an absolute increase in AN count of ≥2 relative to baseline. Treatment switch after the initial treatment period for the PBO/BKZ 320mg Q2W group started at Wk 16. OC does not account for participants who discontinued study follow-up. AN: abscess and inflammatory nodule; BKZ: bimekizumab; OC: observed case; PBO: placebo; Q2/4W: every 2/4 wks; wks: weeks.

Figure 2. Cumulative proportion of patients remaining flare-free (OC)



Proportion of pts who have not experienced a flare at Wks 16 and 48 (100% minus proportion who have experienced a flare). Flare was defined as ≥25% increase in AN count with an absolute increase in AN count of ≥2 relative to baseline. Treatment switch after the initial treatment period for the PBO/BKZ 320mg Q2W group started at Wk 16. OC does not account for participants who discontinued study follow-up. AN: abscess and inflammatory nodule; BKZ: bimekizumab; OC: observed case; PBO: placebo; pts: pa-tients; Q2/4W: every 2/4 wks; wks: weeks.

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Abstract N°: 5514

Comparison of outcome of Daily use of Micro needling with topical insulin vs micro needling with intradermal platelet rich plasma once a month for treatment of post acne atrophic scars.

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Introduction & Objectives: Treatment of acne scars involves multiple treatment options. Procedures like micro-needling along with platelet rich plasma help in collagen stimulation and scar remodelling. The aim of this study was to compare the outcome of micro-needling with PRP done in the outpatient department once a month versus micro-needling with topical insulin done at home on a daily basis in post-acne atrophic scars, as topical insulin is natural component of body, cheap, easy to use, minimally invasive and a new therapy for post-acne scars that showed good results in the studies mentioned. The objective is to To compare the outcome of micro-needling with autologous platelet rich plasma versus micro-needling with topical insulin in the treatment of post-acne atrophic scars

Materials & Methods: in group A, under antiseptic measures and topical anaesthesia, microneedling, using a dermaroller with 1.5-mm length and 192 needles on a roller drum, was performed in a standard manner on both sides of the face. 1 to 2 mL of autologous Protein rich plasma, prepared using the standard method, was applied. An ice pack was applied over the treated areas, and the face was cleaned after 30 minutes.

In group B , patient was advised to follow aseptic precautions and use a 0.5mm length 192 needle derma roller daily night at home on both sides of the face follow by application of topical insulin (Human. Mixtard) 20 Units (0.5ml) on both sides daily night

Preprocedural and post procedure blood glucose levels were measured. Adverse effects were noted. Patients were advised to follow photoprotective measures. All patients of group A received 3 microneedling sittings at monthly intervals and were monitored until 3 months after the last sitting. All patients of group B were asked to follow up on a monthly basis The qualitative Global Acne Scarring System was used to compare treatment-associated improvement.

Results: In group-A, 7(75.0%) were males and 3(75.0%) were females, while in group-B, 6(32.5%) were males and 4(67.5%) were females. The mean age of patients in group-A was 24.68±5.03 years and 22.48±3.75 years in group-B. The mean duration of scar in group-A was 2.5±2.1 years and 3.2±2.3 years in group-B. The mean percentage reduction in grades of scar in group-A was 23.42±12.74% and 55.33±16.79% in group-B.

Conclusion: Daily use of Micro-needling along with insulin appears to show better outcome than monthly sessions of micro-needling with PRP for the treatment of acne scars. The result could also widely depend on the daily use of microneedling in group A with topical insulin in comparison to the monthly use of microneedling with PRP in Group B This combination procedure does not require expensive equipment and could be done in all skin type patients as post-inflammatory hyperpigmentation is rarely seen after the therapy. Also, this novel combination procedure is convenient for both doctors and patients as no high skills are required, no need to take I/V line and less time consuming. A combination of both these techniques will show cumulative effects in the long run .

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Abstract N°: 5518

Hidradenitis suppurativa : Aggravating factors experienced by patients in a global study. Results of the ALL Project.

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Introduction & Objectives:

Hidradenitis suppurativa [HS] poses a significant obstacle in modern dermatology, primarily due to the complexities surrounding its diagnosis. Characterized by painful nodules and recurring abscesses, this chronic inflammatory skin ailment is frequently misunderstood or inaccurately diagnosed. The intricate nature of its symptoms and the diverse ways it manifests clinically often result in diagnostic delays, which hinder patients from receiving prompt and suitable treatment.

Materials & Methods:

The ALL PROJECT is a large-scale study of individuals representative of the adult population in 20 countries on 5 continents: Europe [France, Italy, Germany, Poland, Portugal, Spain, Denmark; n=17500], Latin America[LA] [Brazil, Mexico; n=6501], Asia [China, India, South Korea; n=10500], North America [NA] [Canada, USA; n= 7500); Middle East [ME] [Israel, United Arab Emirates; n=2750], Australia [Australia; n=2000] and Africa [Kenya, South Africa, Senegal; n=1800]. In each of the 20 countries surveyed, representative and extrapolable samples of the general population aged 16 and over were interviewed. This methodology ensures that the results of the study can be generalised to the entire population of each country included in the project, thus providing a global and diversified perspective of the subjects studied. Patients reporting only HS as confirmed by a healthcare professional, were identified to avoid attributing effects to another skin condition. Statistical analysis was performed with EasyMedStat (version 3.34; www.easymedstat.com).

Results:

The prevalence of HS disease in Europe is 1%. In Asia and the Middle East, the prevalence is 2.0% and 3.3%, respectively. These two regions stand out statistically, with significantly higher prevalences than in Europe. In, NA, Africa and Australia, the prevalence is significantly lower, with respective values of 0.7% for the first, 0.5% for the second and 0.4% for the third. The prevalence in AL was also lower, at 0.8%. In order to avoid any potential bias, patients who reported no other skin disease than HS disease were identified in order to describe their course of care (n=95). Notwithstanding these regional disparities, stress was identified as the main factor contributing to HS exacerbation, with 40% of respondents indicating this as a significant factor [34.7% in Europe]. Alimentation was identified as the second most significant factor, with 37.9% of respondents indicating this. It is also notable that one in three women (34.3%) identified hormonal variations as a factor in the exacerbation [50% in Europe]. In addition, smoking was identified as an aggravating factor by 24.2% of respondents [22.4% in Europe] and alcohol consumption was claimed by 17.9% [18.4% in Europe].

Conclusion:

This study has identified several factors that contribute to exacerbation of HS according to patients' own experience, based on a cohort of patients who reported no skin disease other than HS. The analysis highlights general trends in aggravating factors. It shows that stress (40%) and diet (37.9%) are the main factors exacerbating HS with notable hormonal variations in women (34.3%). Smoking (24.2%) and alcohol (17.9%) are also significant. These results point to the importance of personalised care, including stress management, appropriate diet and advice on addictions such as smoking and alcohol.

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Abstract N°: 5532

Efficacy, Tolerability, And Acceptability of A 2.6% Benzoyl Peroxide Acne Cleanser Specifically Designed for Sensitive Skin

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Introduction & Objectives:

Mild-to-moderate acne is common among adults and benzoyl peroxide (BPO) has a long history of efficacy in reducing acne lesions. The efficacy of BPO is comparable for concentrations from 2.5% to 10%, but tolerability, overall, is best at lower concentrations. This study assessed efficacy and safety of a 2.6% BPO cleanser (complexion clearing acne cleanser, CCAC) in mild-to-moderate acne.

Materials & Methods:

Single center, open-label 4-week study of subjects aged 18-45 years with self-perceived sensitive skin and mild-to-moderate acne. CCAC was applied twice daily (morning/evening) on damp skin. Assessments included clinical grading of lesion counts, clinical photography with and without ultraviolet fluorescence to visualize porphyrins, patient self-assessment questionnaire, and standard tolerability ratings.

Results:

Total lesion counts were significantly reduced by week 1 of cleanser use (-25.2%, $P<0.05$); at week 4, acne lesions were reduced though not statistically significantly. Additionally, there was a significant reduction of porphyrin counts at week 1 (-19.4% right side face, -28.8% left side, $P<0.05$ vs baseline). CCAC was well tolerated with no significant increase in tolerability ratings at any timepoint compared to baseline and patients reported good satisfaction.

Conclusion:

CCAC was efficacious in reducing acne lesions in as little as one week, and a trend in reduction was shown through week 4. Due to the cyclic nature of acne, fluctuations can be expected. Additionally, this 2.6% BPO cleanser was also shown to be very well tolerated and well-liked by subjects with self-perceived sensitive skin.

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Abstract N°: 5587

Epidemiology and health care of juvenile and late-onset acne – claims data analysis

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Introduction & Objectives: Acne is the most frequent chronic inflammatory skin condition in adolescence but occurs also in later age. The aim of our study was to characterise the epidemiology, geographical distribution, comorbidity and health care of acne juvenilis (AJ) and acne tarda (AT).

Materials & Methods: Statutory health insurance (SHI) data from 2016 to 2020 were analysed for prevalence rates, comorbidities and use of pharmaceutical drugs.

Results: In 2020, the prevalence of acne in Germany was 2.4%, equaling about 1.96 mil. people, mean age 31 years, 68.6% female. This included 1.5% prevalence of AT (>25 years) and 3.9% of AJ (≤25 years). The highest prevalence (13.0%) was observed at the age of 17. Gender differences were higher in AT (73.8% in women versus 26.2% in men) then in AJ (64.6% in women vs. 35.5% in men).

Compared to persons not affected, individuals with acne - in particular with AT - showed significantly higher rates of skin related comorbidities including folliculitis (RR 8.9), pyoderma (RR 7.3) and rosacea (RR 5.5), and non-skin-related comorbidities, such as ovarian dysfunction (RR 2.4), allergic rhinitis (RR 1.8) and Crohn's disease (RR 1.8). Preferred systemic therapeutics prescribed were anti-infectives in AT (46.9%) and retinoids in AJ (52.4%). In the majority of cases, dermatologists were involved in the treatment for acne (AT 65.8%; AJ 76.3%) and they most commonly prescribed topical combinations like adapalene with benzoyl peroxide (AT 87.7%; AJ 85.8%) and systemic isotretinoin (AT 81.2%; AJ 90.1%), while general practitioners were more likely to prescribe anti-infectives, especially topical antibiotics like chlortetracycline (AT 52.4%; AJ 44.4%) and systemic antibiotics, especially minocycline (AT 58.3%; AJ 67.5%).

Conclusion: Acne affects a relevant proportion of the German population not only in adolescence and management of this inflammatory skin disease does not naturally follow medical guidelines or specialist recommendations. These findings emphasise the importance of specialised care and comprehensive therapeutic management that should also consider the exploration of comorbidities.

EADV CONGRESS
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Abstract N°: 5637

Macrocomedones extraction with co2 laser assisted by the plastic tip of the insulin syringe.

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Introduction & Objectives:

Despite the advances in the treatment of acne, the treatment of persistent comedones remains a challenge for patients and physicians. The term macrocomedone refers to comedones larger than 1-2 mm in diameter that contain cornified material. Because these lesions are not true cysts, extraction is an effective treatment method. Some physical modalities have been used to treat macrocomedones, including the use of a needle, electrocautery, or hyfrecator; however, none of them were fully effective, in addition to the unwanted side effects.

Materials & Methods:

Macrocomedones could remain resistant for months or years, causing significant cosmetic distress. Also, macrocomedone extraction prior to the beginning of isotretinoin could prevent severe flares.

The surgical hand of the CO2 laser was used to make a small hole in the centre of the macrocomedones, followed by extraction of the comedic material with the plastic tip of the disposable insulin syringe.

Results:

CO2 laser use in treating macrocomedones was found to have multiple advantages, including a precise incision with minimal risk of thermal damage, less post-procedure pain because of the sealing of nerve ends, and many lesions that can be treated in one session.

In addition, the disposable insulin syringe could be a better option for macrocomedone extraction because it is sterile and can be pressed in a vertical and angulated manner.

Conclusion:

A combination of making a pinhole in the centre of macrocomedones using CO2 laser followed by its extraction with an insulin syringe was found to be an effective, safe, and rapid treatment modality for this stubborn condition, which helped in improving the quality of life of patients.

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Abstract N°: 5641

Building the Future of Hidradenitis Suppurativa Support Networks – A Grassroots Approach

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) is a chronic inflammatory skin condition characterised by painful abscesses and scarring in the skin folds, typically in intimate areas such as the armpits, groin, breasts and buttocks. HS is a complex heterogenous condition that can be underdiagnosed and misunderstood due to the relative lack of awareness of the real-world issues faced by patients. HS is formally recognised as a disability in the UK, and the COVID-19 pandemic further exacerbated challenges faced by HS patients, relating to the hindrance of access to specialist services and long-term psychological support. We aim to build a community for patients living with HS and provide a safe network for honest conversations, support and social interaction with other HS patients. To better understand what is important for HS patients, we organised a focus group to learn directly from patients to provide invaluable insights into how we can build an effective HS support network.

Materials & Methods:

The focus group was organised by dermatologists and medical students with an interest in dermatology, involving a diverse group of women at various stages in their journey with Hidradenitis Suppurativa. Honest reflections and mindfulness activities allowed the opportunity for discussion on patient experiences of life with HS, delving into the medical and psychosocial aspects of the condition. We summarised the discussion and evaluated it using the qualitative Framework method analysis to identify key themes and interpretation.

Results:

8 HS patients from multi-cultural backgrounds attended the focus group. Several themes emerged from the active discussions including a) stereotypes of HS including obesity, poor diet and lack of exercise, b) insufficient psychological support and c) uncertainty over treatment options. Further discussions identified access to resources, such as dressings, antiseptic washes and suitable clothing, placed heavy financial burden on patients. It was evident from the discussion the serious biopsychosocial impact of HS.

Conclusion:

The focus group discussion and reflections led to the identification of key themes that HS patients are living with, which have previously been reported. Our own reflections highlighted the importance of improving awareness of the need for a holistic approach to HS management. Developing a sustainable and effective support network requires a holistic approach involving key stakeholders, including patients and the multi-disciplinary team of healthcare professionals who look after HS patients. HS is a physically debilitating condition where patients may not be able to travel and therefore offering virtual support is equally important. This grassroots approach to building the future of HS support networks has provided the impetus to seek funding to pilot a range of in-person and virtual HS patient social gatherings.

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Abstract N°: 5650

Giant acne keloidalis nuchae: A case report

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Introduction & Objectives:

Acne keloidalis nuchae (AKN) is an inflammatory disease that is characterized by the formation of fibrotic papules and plaques on the nape of the neck and occiput. In some cases, AKN can progress to form substantial tumor-like masses. We present a case of a giant AKN lesion treated with surgical excision, and discuss potential causes underlying the emergence of this extensive form.

Materials & Methods:

Not Applicable

Results:

A 29-year-old patient with Down syndrome, obese, with a medical history of hidradenitis suppurativa (HS), presented with a 3-year history of "keloid scar (KS)" on the nape of the neck. He underwent multiple local treatments (cryotherapy, phenolization, intralesional corticosteroid injections) with initial improvement then progressive extension in his "KS" reaching 40 * 20 cm with ulceration and pus discharge. The swelling extended to the back, impeding neck mobility. The mass was excised. Histopathology revealed rarefaction of pilosebaceous appendages with ulceration foci covered in fibrinoleukocytic material. The dermis displayed thick bundles of randomly arranged hyalinized collagen, sparse fibroblasts aligned along collagen fibers, and interstitial edema. A polymorphous inflammatory infiltrate, rich in plasma cells and neutrophils, was observed. Foreign body granulomas, along with chronic and acute suppurative folliculitis lesions, were present alongside pilary debris.

The diagnosis of tumour-stage AKN was made. After one month of follow-up, there was no recurrence of symptoms.

Conclusion:

AKN is an inflammatory chronic disease of the hair follicles with progression to keloidal papules, plaques, and scarring alopecia mostly on the nape of the neck and occiput. In rare cases it may grow to form giant tumours as in our case.

A new large study (Kridin et al.) has confirmed the link between AKN and metabolic syndrome which was associated with widespread keloidal lesions extending beyond the nape and occipital scalp. The presence of morbid obesity in our patient may explain the giant form he presented. It has been suggested that obesity may increase the risk of friction and excessive moisture in scalp skin folds, mainly in the occipital and posterior neck regions, and consequently increase the risk of follicular occlusion in AKN. Moreover, disorders involving follicular occlusion, such as HS and acneiform eruptions have shown an increased prevalence in patients with Down syndrome.

Surgery for AKN is reserved for advanced cases that has been refractory to medical management, as in our case.

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Abstract N°: 5707

The impact of secukinumab on psychiatric comorbidities in patients with moderate to severe hidradenitis suppurativa: A post hoc analysis of the pooled data from SUNSHINE and SUNRISE Phase 3 trials

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Introduction & Objectives:

Patients with hidradenitis suppurativa (HS) often experience multiple comorbidities, including psychiatric comorbidities such as depression, anxiety, and suicidal ideation.1,2 Recent findings indicate that patients with HS have an approximately two-fold higher risk of experiencing depression and anxiety disorders compared to those without HS.3 The SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) Phase 3 trials of secukinumab in patients with moderate to severe HS previously reported sustained efficacy, including improvements in quality of life (QoL), with a favourable safety profile.4 A post hoc analysis of pooled data from these Phase 3 trials was performed to evaluate the impact of secukinumab on changes in psychiatric comorbidities up to week 52.

Materials & Methods:

In both trials, patients with moderate to severe HS were randomised to receive subcutaneous secukinumab 300 mg every 2 (SECQ2W) or 4 weeks (SECQ4W), or placebo (PBO) in a 1:1:1 ratio between weeks 0 and 16. Patients receiving PBO were switched to SECQ2W or SECQ4W while those receiving SECQ2W or SECQ4W remained on the same treatment from weeks 16 to 52.4 Psychiatric comorbidities assessed at baseline screening visit were analysed. Mood was assessed via the 'anxiety/depression' question of the European QoL 5-Dimenstion (EQ-5D) questionnaire through week 52. Additionally, patients were asked to report how negatively their emotions were impacted by HS during the past 24 hours using an HS symptom and impact diary, through week 52. The diary, developed for the study, utilised a 0–3 scale (0=not at all; 1=a little bit; 2=moderately; 3=a great deal). The incidence of new onset or worsening of psychiatric adverse events (AEs) by preferred terms (PTs) and based on the Medical Dictionary for Regulatory Activities version 25, are also reported through week 52. All endpoints are reported as pooled data from SUNSHINE and SUNRISE and data are presented as observed. No statistical testing was applied as analyses were exploratory.

Results:

Overall, 1084 patients were enrolled in SUNSHINE and SUNRISE (SECQ2W [N=361]; SECQ4W [N=360]; PBO [N=363]) with an overall mean (SD) age of 36.2 (11.5) years, with 56.3% (610/1084) of patients being female. Depression (9.8%; 106/1084) and anxiety (7.1%; 77/1084) were among the most commonly reported comorbidities in this study at baseline. At week 16, a higher proportion of patients in the secukinumab groups reported being 'not anxious or depressed' versus placebo (SECQ2W [53.7%]; SECQ4W [54.7%]; PBO [44.7%]). These improvements were sustained through week 52, with PBO-switchers also exhibiting improvements (**Figure**

1). At week 16, patients in the secukinumab groups reported reduced negative emotions compared to placebo; these improvements were sustained through week 52 (**Figure 2**). The incidence of psychiatric AEs through weeks 16 and 52 were low and are detailed in **Table 1**. The most frequently reported AEs through week 52 were depression (Any SECQ2W [2.3%]; Any SECQ4W [1.5%]) and anxiety (Any SECQ2W [0.6%]; Any SECQ4W [0.8%]).

Conclusion:

Treatment with secukinumab was associated with improvements in mood and feelings of anxiety and depression, along with a low incidence of psychiatric AEs. These findings highlight the positive benefits of secukinumab in the treatment of HS, particularly with respect to its positive impact on patients' mental well-being, which significantly contributes to the overall QoL in patients with HS.

References:

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2. Machado MO et al. JAMA Dermatol. 2019; 155(8):939–945.
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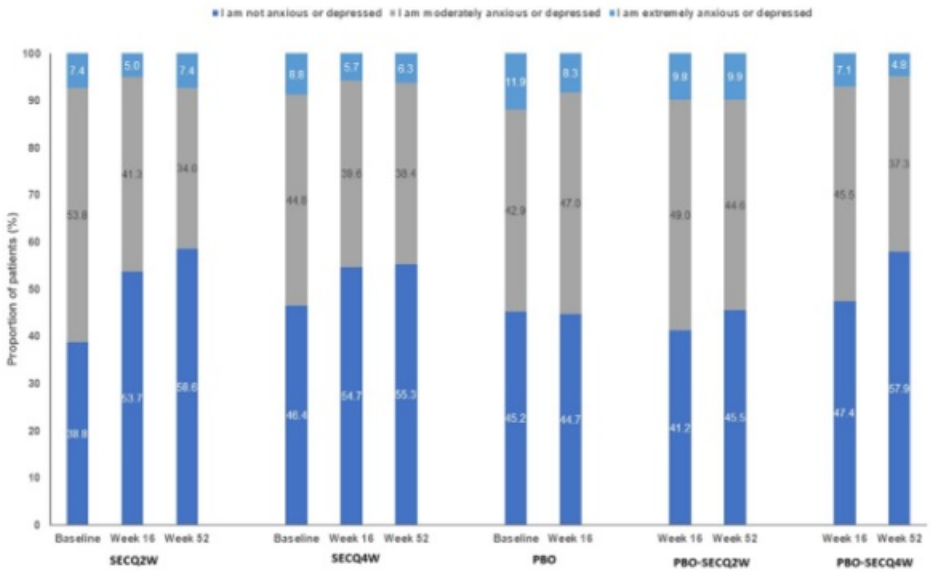
Table 1: Summary of adverse events

Adverse event, n (%)	SECQ2W (N=361)	SECQ4W (N=360)	Placebo (N=363)	Any SECQ2W (N=527)	Any SECQ4W (N=533)
Psychiatric disorders (SOC)					
Treatment emergent AEs (PT) up to week 16					
Depression	3 (0.8)	1 (0.3)	6 (1.7)	-	-
Anxiety	1 (0.3)	2 (0.6)	3 (0.8)	-	-
Depressed mood	0 (0.0)	2 (0.6)	1 (0.3)		
Attention deficit hyperactivity disorder	0 (0.0)	1 (0.3)	0 (0.0)	-	-
Mixed anxiety and depressive disorder	0 (0.0)	1 (0.3)	0 (0.0)	-	
Panic attack	0 (0.0)	1 (0.3)	0 (0.0)	-	-
Treatment emergent AEs (PT) up to week 52					
Depression	10 (2.8)	7 (1.9)	-	12 (2.3)	8 (1.5)
Anxiety	1 (0.3)	4 (1.1)	-	3 (0.6)	4 (0.8)
Depressed mood	0 (0.0)	2 (0.6)	-	0 (0.0)	2 (0.4)
Mixed anxiety and depressive disorder	0 (0.0)	2 (0.6)	-	0 (0.0)	2 (0.4)
Panic attack	1 (0.3)	1 (0.3)	-	1 (0.2)	1 (0.2)
Attention deficit hyperactivity disorder	0 (0.0)	1 (0.3)	-	0 (0.0)	1 (0.2)
Cyclothymic disorder	0 (0.0)	1 (0.3)	-	0 (0.0)	1 (0.2)
Depressive symptom	0 (0.0)	0 (0.0)	-	1 (0.2)	0 (0.0)
Major depression	1 (0.3)	0 (0.0)	-	1 (0.2)	0 (0.0)
Obsessive-compulsive disorder	1 (0.3)	0 (0.0)	-	1 (0.2)	0 (0.0)
Persistent depressive disorder	1 (0.3)	0 (0.0)	-	1 (0.2)	0 (0.0)
Post-traumatic stress disorder	0 (0.0)	0 (0.0)	-	1 (0.2)	0 (0.0)

AE, adverse event; N, number of patients in group; n, number of patients with characteristic; PT, preferred term; Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab 300 mg; SOC, system organ class.

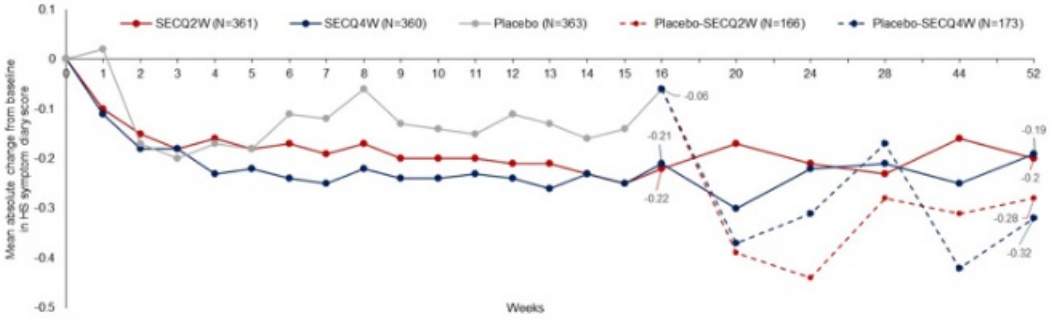
Figure 1: The impact of secukinumab and placebo on anxiety/depression from baseline to week 52



Column graphs detailing the proportion of patients reporting none, moderate, or extreme anxiety/depression as measure by the EQ-5D anxiety/depression question.

EQ-5D, European quality-of-life 5-dimension; PBO, placebo; Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab 300 mg.

Figure 2: The impact of secukinumab and placebo on self-reported emotions from baseline to week 52



Line graphs detailing absolute change from baseline in self-reported emotions based on the question "how much did HS negatively impact your emotions during the past 24 hours" from the HS symptom diary, developed for the study, by treatment group through week 52.

Lower scores indicate a better response. Scoring scale is 0=not at all; 1=a little bit; 2=moderately; 3=a great deal.

HS hidradenitis suppurativa; Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab 300 mg.

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Abstract N°: 5741

Acne vulgaris increased the risk of depression and anxiety: a 13-year population-based retrospective study

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Introduction & Objectives:

The prevalence of acne vulgaris has shown an increasing trend in Taiwan in recent years. The skin condition is known to be associated with several psychiatric comorbidities.

Materials & Methods:

Employing a population-based cohort methodology, we conducted an analysis utilizing the data from the Taiwan National Health Insurance Research Database (NHIRD) spanning the years 2000-2013. Propensity score matching was implemented to address potential bias. Age (classified as childhood: under12 years old, early adolescence: 12-18 years old, later adolescence: 18-25 years old, adulthood: above 25 years old) and gender stratification was applied to both acne and acne-free cohorts. Conditional logistic regression analysis is conducted to assess between acne and psychosocial comorbidities, particularly depression and anxiety.

Results:

In a cohort of 182,516 identified acne vulgaris patients, matched with 365,032 non-acne counterparts, a heightened risk of depression and anxiety was observed in acne patients compared to non-acne cohorts (crude hazard ratio (HR) = 1.56, 95% CI = 1.52-1.60). Upon covariate adjustment (age, gender, and selected comorbidities), the adjusted HR increased to 1.61 (95% CI = 1.55-1.67). Cumulative incidence of depression or anxiety was notably greater in female acne patients (6.01%) compared to males (4.83%). Furthermore, the cumulative incidence increased across age groups, with the lowest in childhood (3.063%), followed by early adolescence (4.626%), late adolescence (5.265%), and adulthood (7.17%)

Conclusion:

This investigation revealed an elevated risk of depression and anxiety in acne patients, particularly in those diagnosed after the age of 25 and among the female population.

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Abstract N°: 5744

Efficacy and Safety of bimekizumab in patients with moderate to severe hidradenitis suppurativa: A multicenter retrospective cohort study

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, relapsing skin condition presenting significant therapeutic challenges. Bimekizumab (BKZ), a humanized monoclonal antibody selectively targeting IL-17A and IL-17F, has shown potential efficacy and safety in randomized clinical trials and has recently received marketing authorization by the European Medicines Agency. However, the characteristics of patients in clinical practice differ from those in clinical trials, so it is important to have real world evidence. The aim of this study was to assess the efficacy and safety of bimekizumab used off-label in patients with moderate to severe HS across multiple centers in Spain.

Materials & Methods:

Retrospective cohort study which included 84 patients treated with bimekizumab. Efficacy was evaluated using an intention-to-treat approach, where patients discontinuing treatment for any reason or lost to follow-up were considered non-responders. All patient-reported adverse events were recorded. Data were collected in week 16 and week 24.

Results:

The analysis included 84 patients at 16 weeks, with 43 having completed follow-up to the 24-week assessment. The dosage approved for psoriasis was used in 83,4% of the patients, the remaining received BKZ 320mg every 4 weeks. 56 males (66.67%) and 28 females (33.33%) with a mean age of 44.17 (13.43) years and a mean baseline IHS4 of 23.75 (12.87) were included. By week 24, IHS4 scores decreased by 16.73 points ($p < 0.0001$); DLQI scores improved by 10.67 points ($p < 0.0001$); pain scores decreased by 3.42 points ($p < 0.0001$); and flare counts were reduced by 1.53 ($p = 0.0006$). Adverse events were reported in 20.24% of patients by week 16, mainly mucocutaneous candidiasis, and decreased to 11.90% by week 24. 53.57% (45/84) of patients achieved IHS4-55 by week 16, and by week 24, 60.47% (26/43) of patients maintained or reached this response level.

Conclusion:

BKZ exhibited substantial effectiveness in promptly reducing IHS4 scores, improving quality of life and decreasing both pain levels and flare frequency, with a manageable safety profile over the 24-week period. These results suggest that the treatment could be an effective and safe option for managing moderate to severe HS, significantly enhancing patient outcomes.

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Abstract N°: 5769

Ten-Ten pulse therapy in treatment of Acne Vulgaris

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Introduction & Objectives:

Introduction:

Tetracycline group of drugs have been the principal oral therapy for acne vulgaris for many years. They primarily reduce the population of cutibacterium acnes in addition they also have other effects: keratinisation in the pilosebaceous unit is reduced and free fatty acid levels in the sebum are lowered. Inflammatory reactions are inhibited because of decreased complement activation, reduced polymorphonuclear leucocyte chemotaxis and macrophage phagocytosis and an inhibition of cell mediated immunity. Oral isotretinoin is recommended for severe nodulocystic acne which is usually associated with higher incidence of adverse effects.

The concomitant use of isotretenoin with doxycycline may increase the risk of pseudotumor cerebri. To reduce the incidence of side-effects due to individual drug as well as combination and to make it more cost-effective, we have done a study of ten ten pulse therapy for grade III – IV Acne Vulgaris.

Objective:

A study of Ten-Ten pulse therapy comprising of Doxycycline and Isotretenoin in the management of Acne Vulgaris.

Materials & Methods:

This was an observational study done on hundred patients with clinically grade 3 and 4 acne and according to the global acne grading system were included in the study between May 2018 to May 2019. These patients were treated with a combination of alternate pulsed low-dose isotretinoin (0.3 mg/kg/day) and pulsed oral doxycycline (100mg/day). Response to treatment was assessed at monthly intervals and was recorded as a percentage decrease in overall severity of disease as well as the adverse effects. Treatment was continued to complete clearance of lesions or to 24 weeks, whichever came later.

Results:

Seventy eight (78%) of 100 eligible patients had complete clearance of disease activity after a mean treatment duration of 24 weeks and no adverse effects were observed. 12% patients showed not mn,much improvement and 10% patients showed some improvement but none of the patient showed any adverse effects including the cheilitis. None of the patient showed aggravation / post treatment relapse.

Conclusion: ** Doxycycline and isotretenoin are the good old drugs for the management of moderate, severe and very severe acne but can't used simultaneously due to the known adverse effects. Ten Ten alternate pulse therapy turned out to be a very effective regimen without any adverse effects as well as cost effective too.

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Abstract N°: 5812

Oral health-related quality of life in individuals with hidradenitis suppurativa coexisting with periodontitis

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory disorder primarily affecting the pilosebaceous unit in intertriginous body areas, with emerging evidence suggesting a potential link with periodontitis. This study aimed to evaluate the impact of periodontitis on oral health-related quality of life (OHRQoL) in individuals diagnosed with both HS and periodontitis, comparing them with those having periodontitis alone.

Materials & Methods:

Fifty-five participants with HS were enrolled, with 25 in the HS+P group (both HS and periodontitis) and matched controls in the periodontitis-only group (P group). OHRQoL was assessed using the Oral Health Impact Profile (OHIP-14) questionnaire.

Results:

The mean OHIP-14 total score did not significantly differ between the HS+P group and the P group. However, individuals with HS+P showed lower rates of dental evaluation and reported less frequent flossing compared to the P group.

Conclusion:

Coexisting HS in patients with periodontitis appears not to significantly affect OHRQoL. Nevertheless, the reduced frequency of dental evaluations and flossing among HS+P individuals underscores potential disparities in oral health practices warranting further attention.

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Abstract N°: 5828

Sexuality and the Desire for Parenthood: The Invisible Burden of Hidradenitis supra in a nationwide French study:

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Introduction & Objectives:

Hidradenitis suppurativa (HS) significantly disrupts daily life of patients, with social stigma, and effect on professional life. This impact is largely attributed to the location of affected areas, the type of the lesions with recurrent painful abcess, flow, oozing and the chronic, unpredictable nature of flare-ups. However, there is limited research on its implications for sexuality and the desire for parenthood.

Materials & Methods:

A digital questionnaire [Q] was administered to patients with medically confirmed HS patients. Respondents were recruited by the project's partner patient associations and by dermatologists involved in the HS-France group, a task force of the French Dermatology Society. The project has received a favourable opinion from an ethics committee. The Q co-constructed with the co-authors, explores a series of themes relating to the experience of patients with HS, including feelings of guilt, the sexuality and parentality . In the last 2 cases, the patient was given the choice of not answering. They were also free to stop the Q whenever they wished.

Results :

423 of the 808 women [W] who completed the questionnaire agreed to complete the part addressing sexuality.

HS disease led 27.4% of the W to change their sexual practices. The frequency of intercourse was reduced in 45.6%, and complete cessation of sexual activity was reported by 12.5% (n=69).

The disrupted sex life manifested itself as a deterioration in the couple's relationship for 20.5%, feelings of frustration for 44.3%, and for guilt for 47.0%. HS patients expressed a loss of self-esteem in 52.3% and isolation in 13.4% . Difficulties in conceiving a child affected 6.9% of the women who spoke out.

Abscesses were the main problem that bothered the W during sexual intercourse , affecting 97.0% [including 76.6% very much] of W, followed by discharge 87.7% [57.8% very much], and finally odour, affecting 63.2% [38.3% very much] of Women.

Fatigue and pain were also expressed by W as bothering factors, with 36.6% and 66.7% respectively citing them as

a very bothering factor.

76.8% consider that their HS is mainly responsible for the difficulties linked to their sexuality. 72.8% considered HS to be responsible for a drop in sexual performance and 78% for a drop in libido.

41.9% acknowledged that their HS was responsible for a disturbance in their relationship with their partner. 81% said they felt less attractive or less able to seduce because of their HS.

In terms of support, 17.4% of patients felt good about their bodies and 63% felt supported. However, 47% did not feel comfortable talking about their sexual difficulties.

Concerning the desire to have children, 53.9% of the W concerned said they had given up or hesitated to have a child because of the HS. 74.4% admitted that they had never discussed the subject with a healthcare professional.

Conclusion:

The impact of HS on sexuality and the desire for parenthood has been poorly documented until now. Abscesses, discharge, and odor were significant obstacles, while fatigue and pain worsened discomfort during sexual activity.

Beyond their lower fertility that was already shown in HS, desire to have children was also compromised.

These findings underscore the necessity for open communication between patients and healthcare providers. It is crucial for healthcare providers to acknowledge and address these aspects and to propose a better care of of the diseases to enhance the quality of life, autonomy, and dignity of affected women.

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Abstract N°: 5830

Social Networks as an Influential Factor in the Management of Hidradenitis Suppurativa Disease: Perspectives and Challenges. The VSH study

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Introduction & Objectives:

In this digital era, where social media platforms have a significant influence in shaping identities and fostering communities, these networks represent a mixed blessing for individuals with Hidradenitis Suppurativa (HS). On one hand, these platforms offer a valuable arena for raising awareness, sharing information, and offering mutual support, thereby breaking through isolation and facilitating connections with others undergoing similar challenges. Conversely, social media can amplify stigmatization and feelings of insecurity.

The emphasis on aesthetic ideals promoted on these platforms can worsen feelings of discontent with one's self-image, while the occasionally harsh interactions can further underscore the sense of isolation experienced by patients.

Materials & Methods:

A digital questionnaire [Q] was administered to French patients with confirmed HS. Respondents are recruited by the project's partner patient associations and by dermatologists in the HS-France group, task force of the French Dermatology Society. The project has received a favourable opinion from an ethics committee.

The Q co-constructed with experts from the HS France group and patient associations, explores a series of themes relating to the experience of patients with HS, including their social networking habits.

Results:

977 people answered the Q about their social networking habits , with a Sex-Ratio in favour of women [W] (75%, n=738) and an average age of 38.9 ±11.5 (median 38). For better understanding their HS, 58.1% patients said they resorted to a dermatologist, 38.5% to a patient association, 38.4% to a specialized health website, 27.9% to discussion forums, 5.4% to friends or family. Only 4.5% said they never looked for information.

There was a significant difference according to gender regarding their source of information seeking: For instance: Dermatologist: W:54.9% vs M :68.2%; <0.02; Discussion forum: W:30.5% vs M 20.1%; <0.01; Patient association: W:40.9% vs M:31.0%; <0.05 and Health Website: W:40.9% vs M:31%; <0.01].

There is a generation difference :For discussion forums, 34.6% of W under 40 said they used discussion forums (25.4% of W aged 40 & over). Men under-40s reported more turning to their dermatologist, discussion forums or patient associations than those aged over 40: (56.3% vs. 26.3%), (34.6% vs. 6.3%) and (41.8% vs. 13.9%).respectively

When they turned to websites, 70.3% said they trusted patient association websites, 35.3% trusted university websites (SFD, Dermato-Infos, other); 12% said they turned There were no significant differences according to age, except for university websites (SFD, Dermato-Infos..), where 42% of the under-40s trusted them, compared with 30.5% of the over-40s. [P-value<0.001]

Conclusion:

Gender differences are notable, with men more likely than women to consult a dermatologist, while women are more likely to use discussion forums and patient associations. These trends may reflect differences in attitudes towards health management, with men perhaps preferring a more formal approach and women a more community and peer-to-peer approach..

The findings of this survey underscore the necessity of focusing on enhancing access to trustworthy and validated information for individuals with HS.

The growing significance of patient associations and online discussion platforms highlights the importance for healthcare professionals to acknowledge and incorporate these resources into their care plans.

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Abstract N°: 5837

Hidradenitis suppurativa and diet: A cross-sectional analysis of reddit and review of the literature

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory condition characterized by painful abscesses and sinus tracts commonly in the axilla and groin.1 Diagnosis is often clinical, and treatment options include topical and oral antibiotics, biologics, and, in severe cases, surgical intervention.1 HS can often be difficult to manage and have a significant impact on patients' quality of life. Therefore, many patients seek support online. In particular, a popular discussion topic on Reddit is the impact of diet on HS flares. Thus, the goal of this cross-sectional analysis and review was to characterize Reddit posts related to HS flares and diet and summarize the current literature regarding the topic.

Materials & Methods:

A comprehensive literature search was performed using PubMed, Embase and Web of Science. Next, the most recent 1000 posts in the Reddit subgroup "Hidradenitis" were reviewed in May, 2023. Any post discussing foods/diet related to HS flares was tallied. All comments on these posts were also analyzed.

Results:

A total of 15 studies met inclusion criteria. Across two studies involving caloric and/or carbohydrate restriction, 447/883 patients showed subjective improvement in their HS. Additionally, three studies showed lower adherence to a Mediterranean diet in HS patients. Further, dietary restrictions that led to HS improvement included dairy restriction (n=1 study), yeast-exclusion diets (n=2 studies), and periods of fasting (n=1 study). Across the 1000 Reddit posts, 46 commented on diet (4.6%). The most commonly discussed "triggers" included sugar (n=6/46,13.0%) and dairy (n=5/46,10.9%). These posts contained 106 comments, with the most common "triggers" discussed being nightshade vegetables (n=27/106,25.5%) and sugar (n=26/106,24.5%).

Conclusion:

Although Reddit posts remain anecdotal in nature, and current studies lack proper control groups, providers should remain informed on the dialogues surrounding diet and HS to properly counsel patients.

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Abstract N°: 5883

Effects of 15% Azelaic Acid Gel in the Management of Post-Inflammatory Erythema and Post-Inflammatory Hyperpigmentation in Acne Vulgaris

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Introduction & Objectives:

The aim of this study was to assess the efficacy and safety of 15% azelaic acid (AzA) gel in treating acne-induced post-inflammatory erythema (PIE) and post-inflammatory hyperpigmentation (PIH). The effects of 15% AzA gel on acne, skin barrier function, and quality of life were also evaluated.

Materials & Methods:

A total of 72 patients with mild to moderate acne were enrolled in a randomized, double- blind, placebo-controlled trial. Patients were divided into two groups: patients in the AzA group applied 15% AzA gel twice daily for 12 weeks, and those in the placebo group applied AzA-free gel. Clinical evaluations using non-invasive skin detection technologies, including VISIA skin analysis, dermoscopy, and skin physiological function tests, were performed at 0, 4, 8, and 12 weeks. Main outcome measures included the post-acne hyperpigmentation index (PAHPI), melanin, hemoglobin, individual typology angle, water content, transepidermal water loss, and sebum. Investigator Global Assessment) and Dermatology Life Quality Index (DLQI) assessments were conducted at weeks 0 and 12. Adverse reactions were recorded.

Results:

Of the 72 patients at study initiation, 60 completed the trial. At 8 and 12 weeks, patients in the AzA group showed significantly reduced PAHPI index for PIE lesions compared to baseline and patients receiving placebo ($P < 0.05$). Patients in both groups exhibited reduced PIH lesions at weeks 8 and 12 that differed significantly from baseline ($P < 0.05$). Hemoglobin content decreased significantly in AzA-treated PIE lesions compared to those treated with placebo at week 12 ($P < 0.05$). Melanin content decreased significantly in AzA-treated PIH lesions at week 12 ($P < 0.05$). The AzA group showed higher improvement in DLQI ($P < 0.05$), and greater overall satisfaction ($P < 0.05$) compared to placebo.

Conclusion:

The results indicate that 15% AzA gel effectively improved acne-induced PIE and PIH with minimal adverse reactions, making it a viable clinical application. In the study population, it had no adverse effects on skin barrier function and contributed positively to acne improvement and patient quality of life.

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Abstract N°: 5901

A novel approach to evidence synthesis and its comparative analysis with network meta-analysis for the treatment of acne vulgaris

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Introduction & Objectives: This study introduces the Natural Action Model (NAM) for evidence synthesis in acne vulgaris, aimed at overcoming limitations of traditional Network Meta-Analyses (NMAs) in comparing different treatment regimens, especially rational combinations which have never been studied in any formal clinical trials.

Materials & Methods: The NAM, a dynamic graphical network, was constructed for acne, chosen for its myriad treatment options. It was compared with two recent NMAs (NMA1 and NMA2) for predictive accuracy. Trials from the CENTRAL database (Cochrane) from 2013 to 2023 were selected based on specific inclusion and exclusion criteria, yielding 45 distinct instances for comparison.

Results: NAM was non-inferior, with an accuracy of 76%, compared to 58% for NMA1 and 78% for NMA2. Statistical tests showed no significant difference in accuracy between our model and NMAs, demonstrating its potential as a scalable and accurate method for treatment optimization.

Conclusion: NAM offers a promising alternative for evidence synthesis in personalized medicine, especially for diseases requiring combination therapies. It holds the potential for improving clinical decision-making by offering a more scalable and equally accurate method compared to traditional evidence synthesis methods like network meta-analysis.

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Abstract N°: 5919

Hidradenitis Suppurativa: Is It Time to Introduce Antimicrobial Stewardship?

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition characterized by painful nodules, abscesses, and sinus tracts in the apocrine gland-bearing areas of the body. Over the past decades, research has increasingly focused on the bacterial role in HS patients. While HS does not fully meet Koch's postulates defining bacterial infectious disease, its clinical presentation often resembles bacterial infection, making antibiotic therapy the primary choice for moderate-to-severe HS. Since the discovery of the first antimicrobial agent, salvarsan (the first anti-syphilis drug), antibiotics have revolutionized medicine. Today, they remain a topic of global interest due to concerns over antimicrobial resistance, posing a significant challenge for healthcare providers.
In this context, our objective is to introduce the concept of antimicrobial stewardship for appropriate antibiotic management in HS, addressing the challenges, opportunities, and emerging strategies.

Materials & Methods: The use of a checklist to be completed by the antibiotic prescribers and attached to the patient's clinical documentation every time an antibiotic is prescribed for the treatment of HS will be proposed.

Results: Implementing antimicrobial stewardship principles in HS treatment requires a multidisciplinary approach involving dermatologists, infectious disease specialists, and pharmacologists (with expertise in antibiotic drugs) to tailor antimicrobial therapy, promote appropriate antibiotic selection, and monitor treatment response. Key considerations include exploring alternatives to antibiotics, such as biological drugs, intralesional corticosteroids, or surgery, and adhering to international guidelines for antimicrobial administration, taking local epidemiology into account.

Optimizing the dosage and duration of antibiotic treatment is crucial to maximize effectiveness while minimizing adverse events. Additionally, educational initiatives targeting both healthcare providers and patients are essential to standardize antimicrobial management practices in HS care.

Conclusion: Implementing antimicrobial stewardship principles in HS management offers a promising approach to optimizing treatment outcomes while mitigating concerns associated with antimicrobial overuse. Future research should focus on well-designed clinical trials and long-term observational studies to refine guidelines and improve overall HS management, preserving the effectiveness of antimicrobial agents.

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Abstract N°: 5924

retinol versus salicylic acid peels in active acne vulgaris, post-acne scarring and hyperpigmentation: a comparative study

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Introduction & Objectives:

Acne vulgaris is the most prevalent skin disease and the single most common reason for visits to dermatologists. Acne resolves completely without major sequelae in most patients, but in a few, it may leave behind disfiguring scarring or hyperpigmentation.Chemical peeling has been used for acne for many years. In addition to its epidermal resurfacing properties, it leads to remodeling of collagen and elastin fibers and deposition of glycosaminoglycans. Because of the resurfacing of the epidermis, the melanin content is decreased, and it is more evenly distributed, improving hyperpigmentation. Salicylic acid and retinol are lipophilic and thus penetrates active acne lesions quickly. Therefore, the present study, which aimed at determining the efficacy and side effects of SA peels and retinol for the treatment of acne and post-acne scarring and hyperpigmentation

Materials & Methods:

Fifty patients with facial acne, post-acne scarring and hyperpigmentation were divided into two groups, one receiving salicylic acid peels every two weeks, the other retinol peels every four weeks for twelve weeks for both groups. An objective assessment (Michaelsson score) of treatment results was performed by the treating physician every 2 weeks . Subjective assessments were made by the patients, the treating physician and an independent observer. Side effects of both agents were also recorded.

Results:

Both agents were effective, but with salicylic acid superior for most active acne lesions (p=0.001) with early results (at 4 weeks), The change in total acne score (week 0 to week 12) was 54.3% with the SA peel and 37.3% with retinol (P=0.001). The Change in comedones (week 0 to week 12) was 65.7% with the SA peel and 28.7% with the retinol peel, a statistically significant difference (p=0.001). Both peels produced a comparable and significant improvement in post-acne hyperpigmentation (p=001), although retinol achieved a better result, with a 49.8% reduction at the end of the study, and 36.3% with SA peels (p=0.001). There was no improvement in acne scars with either agent.

Conclusion:

To our knowledge, this is the first study to compare SA and retinol peels, and we found that SA was more effective than retinol in the treatment of active acne vulgaris, confirming reports of the superiority of SA over jessner and glycolic acid peels in the treatment of active acne, particularly comedones, with fewer adverse effects. But retinol showed greater efficacy in reducing post-inflammatory hyperpigmentation, affirming its skin-whitening effect. There was no improvement in acne scars, suggesting the need for deeper peels. While salicylic acid peels are more effective for the treatment of acne vulgaris, retinol action on active acne lesions, post-acne hyperpigmentation and signs of aging makes it a good alternative for adult female acne.

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Abstract N°: 5927

Effectiveness of an implementation strategy to improve screening and diagnosis of patients with hidradenitis suppurativa: interim results from the HELyx implementation science study in Germany

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Introduction & Objectives:

Implementation of standardized assessments of hidradenitis suppurativa (HS) symptoms and disease severity in clinical practice may help increase and accelerate the diagnosis of HS across healthcare professional (HCP) specialties (i.e., dermatologists, general practitioners, gynaecologists, and surgeons). HELyx is an ongoing, implementation science study in Germany designed to evaluate the effectiveness and feasibility of implementing an online training strategy (HS care package) on HS diagnosis and management by HCPs involved in the HS patient journey.1

Materials & Methods:

Assessments were conducted before implementation of the HS care package (baseline) and post-implementation of the HS care package at Weeks 12 and 24. HCPs self-completed an online quantitative survey focused on awareness and knowledge of HS prior to HS care package review and completion. HCPs had four weeks post baseline survey to complete the care package training. Surveys were administered at weeks 12 and 24 and collected information on HCP's current management of HS including the use of HS diagnostic screening tools, HS disease severity instruments, and patient-reported outcomes in routine clinical practice in the past 12 weeks. Interim data (baseline and Week 12) are reported.

Results:

In total, 187 HCPs completed the baseline survey (86 dermatologists; 101 non-dermatologists) and 124 HCPs (56 dermatologists, 68 non-dermatologists) completed the Week 12 survey. Overall, a higher proportion of HCPs saw at least one patient with suspected or diagnosed HS at Week 12 (96.8%) than in the past 12 weeks prior to baseline (91.4%) (**Fig 1**). A substantially higher proportion of HCPs reported using an HS diagnostic screening tool at Week 12 vs. baseline (Baseline: HCPs, 12.8% [dermatologists 18.6%, non-dermatologists 7.9%]; Week 12: HCPs, 49.2% [dermatologists 42.9%, non-dermatologists 54.4%]). The mean ± SD number of patients screened with HS diagnostic screening tools by both dermatologists and non-dermatologists at Week 12 (1.6 ± 2.9 and 1.6 ± 2.3) was higher vs. baseline (0.7 ± 2.3 and 0.2 ± 0.7). Both dermatologists and non-dermatologists who used an

HS diagnostic screening tool mainly sought information on the location of lesions, followed by descriptions or images of nodules, abscesses, or tunnels (**Fig 2**). At Week 12, among HCPs who saw at least one patient with suspected or diagnosed HS, 55.8% used the diagnostic screening tool developed as part of the HELyx care package; non-dermatologists showed a higher utilisation than dermatologists (66.7% vs. 42.6%) (**Fig 3**). At Week 12, the mean ± SD number of patients screened with the diagnostic screening tool from the HELyx care package by dermatologists and non-dermatologists who saw at least one patient with suspected or diagnosed HS was 1.4 ± 2.0 and 1.7 ± 2.1, respectively.

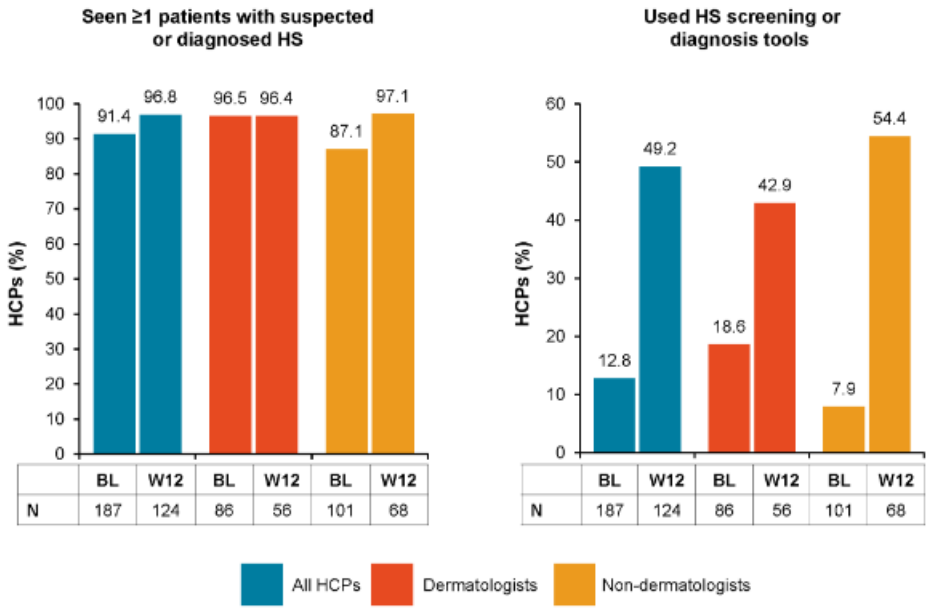
Conclusion:

Findings from the interim evaluation suggest that implementation of the HS care package was associated with an increase in the usage of HS diagnostic screening tools among HCPs across specialties. More than half of HCPs who saw at least one patient with suspected or diagnosed HS utilised the diagnostic screening tool developed as part of the HELyx care package in the 12 weeks after implementation; particularly those with a non-dermatology background.

Reference:

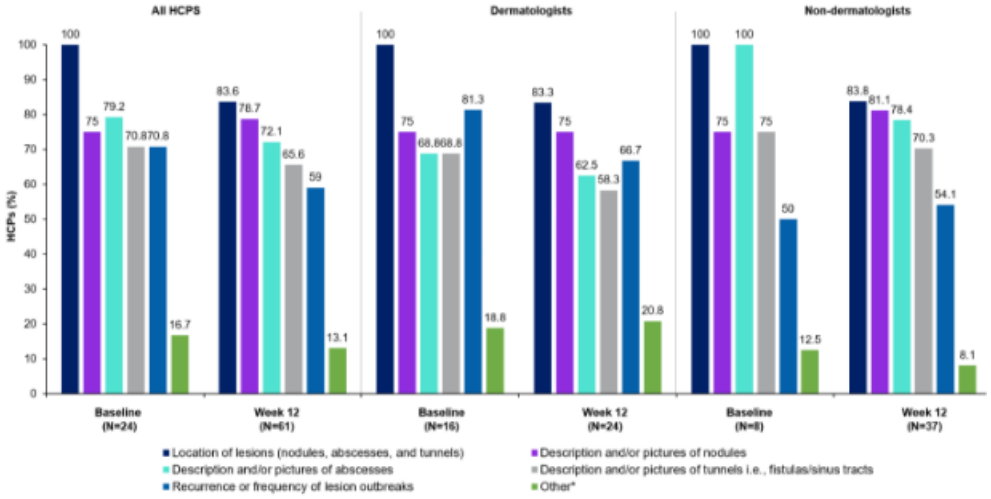
1. Martorell A, et al. EADV Congress, 11–14 October, 2023. P0016.

Figure 1. Use of diagnostic screening tools by HCP in the past 12 weeks: Baseline vs Week 12



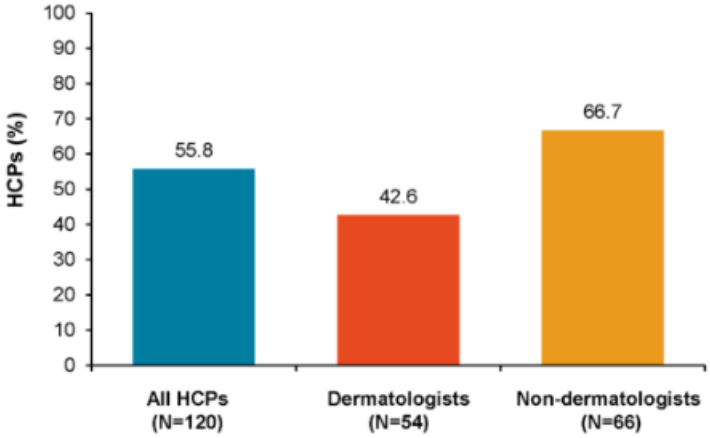
Denominator is number of all HCPs (N).
BL, baseline; HCPs, healthcare professionals; HS, hidradenitis suppurativa, W, week.

Figure 2. Information sought from HS screening and diagnostic tools by HCPs who used these tools in the past 12 weeks: Baseline vs Week 12



Others include activity of the disease, number and frequency, degree of expression, description of severity, DLQI, Summary of product characteristics, family history, HELyx videos, histological findings with tissue neutrophil, Hurley grade, severity, sonography; extent of scaring, HELyx tool, IHS4.
BL, baseline; HCPs, healthcare professionals; HS, hidradenitis suppurativa; W, week.

Figure 3. Use of diagnostic screening tools from the HELyx care package by HCP who saw at least one patient with suspected or diagnosed HS in the past 12 weeks after implementation



HCPs, healthcare professionals; HS, hidradenitis suppurativa

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Abstract N°: 6111

Does metformin have a role in hidradenitis suppurativa? Case series from Son Espases University Hospital

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory disease of the pilosebaceous unit in which biological treatments are partially effective, and there is already a need to improve treatment options. In recent years, the use of metformin has been proposed, not only in diabetic patients or patients with insulin resistance, due to its anti-inflammatory and immunometabolic properties.

Materials & Methods:

We performed a retrospective observational study of patients with HS treated with metformin at the Son Espases University Hospital from January 2019 to March 2024. Patients who were on metformin for diabetes mellitus (DM) were excluded. A descriptive analysis of the treated patients was performed and the efficacy of the treatment was assessed by comparing the International Hidradenitis Suppurativa Scoring System (IHS4) at baseline and at 6 months using the Wilcoxon T test for paired data. Kaplan-Meier survival curves for metformin treatment were obtained and different groups were compared using the Mantel-Cox test.

Results:

One hundred patients were treated, but after excluding diabetic patients, a total of 67 patients were obtained, 74.6% being women, with a mean age of 35 years, 48% were obese and 45% had insulin resistance. 50% of patients had a follicular phenotype and 85% had a Hurley I-II. Ten patients (14.9%) received metformin exclusively as treatment. The average daily dose administered was 1140 mg/day, with a range between 500 and 3000 mg. Median drug survival was 12 months. The mean baseline IHS4 was 5.8 and 4.3 at 6 months ($p<001$). None of survival differences between different subgroups were statistically significant. 45% of patients discontinued treatment, 30% of them due to adverse effects, mainly gastrointestinal. No serious adverse effects have been reported.

Conclusion:

The use of metformin could benefit the patient with HS both in the frequently associated comorbidities, especially hyperandrogenism and metabolic comorbidities, as well as in HS itself. Three case series of HS treated with metformin have been published. Jennings et al report a subjective clinical improvement in 68% of patients (N=53), obtaining a 19% complete response with metformin monotherapy. In another series, Verdolini et al (N=25) found an improvement in the Sartorius scale and the Dermatology Life Quality Index. In the longest series reported to date, Senent-Valero et al. (N=96) describe an overall survival of metformin in patients with HS of 51% and 22% at 12 and 24 months, respectively, with the most frequent reasons being of suspension the ineffectiveness of the treatment in 34% and the adverse effects in 16%. Our cohort and the results in efficacy and safety are similar to those previously described. In our series with an improvement in IHS4 at 6 months. Treatment with metformin could be a complementary therapeutic tool, especially in patients with Hurley I-II, regardless of weight and the presence of IR.

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Abstract N°: 6140

ACNE GROUP VIDEO CONSULTATION – What the patients have to say

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Introduction & Objectives: Acne vulgaris is one of the most common types of chronic inflammatory disease with an estimated prevalence of 9.4% according to the Global Burden of Disease Project** 1,2. It is reported that 20-35% of those individuals develop moderate to severe forms that require Dermatology input3 and this has led to a significant burden on secondary care1. The Acne Group Video Consultation (AGVC) came as a novel approach to manage the rising demands for face-to-face appointments, help reduce the waiting time and improve the quality and efficiency of the acne service delivered in the University Hospital of Wales (UHW). This study aims at describing patients' perspective on this new type of consultation.

Materials & Methods: Qualitative research was conducted in the Dermatology Department of the UHW. Questionnaires were provided to a total of 80 patients who attended the AGVC and the follow up face-to-face clinic from April 2023 to July 2023 to assess their level of satisfaction. The data was retrospectively analyzed.

Results: In total, 70 patients completed the survey. The overwhelming majority of the patients were satisfied with the format and the technical aspects of the AGVC. Some improvement still needs to be achieved concerning the follow up post group consultation.

Conclusion: The implementation of video consultations as an alternative to hospital face-to-face appointments has revolutionized service delivery and could become a solution for bridging the gap between the increasing demands of patients and the limited resources available within healthcare providers4. This method is described in the literature as innovative, safe, time and cost effective4. In the UHW, it reduced the waiting times for a F2F acne appointment from 104 weeks to less than 30 weeks in 10 months. Moreover, this study suggests that overall, the patients are satisfied and would highly recommend it.

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Abstract N°: 6175

Evaluation of safety and efficacy of Croton oil free 15% phenol combination (CFPC) peels and oral isotretinoin therapy in skin of colour patients suffering from active acne and post inflammatory hyperpigmentation (PIH).

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Introduction & Objectives: Acne is a common skin disorder which can cause significant scarring and PIH. Isotretinoin is a potent drug for treating acne. Croton oil free phenol combination (CFPC) peels have recently gained popularity in the darker skin types as being a versatile, efficacious and safe peel for acne and post inflammatory hyperpigmentation. CFPC peels mainly contain phenol between 8-25% along with TCA 15% and Glycolic acid 2 %. Due to past recommendations of not combining procedures during isotretinoin therapy, peeling during isotretinoin intake is done with caution and fear of aberrant healing. The objective of his study is to evaluate safety and efficacy of Croton oil free 15% phenol combination (CFPC) peels in dark skin type patients of active acne and PIH on concomitant isotretinoin therapy.

Materials & Methods: Retrospective study of 80 patients (58 female and 22 male) of active acne (grade III-IV) enrolled between Jan 2023 to Jan 2024 was done. Case records of patients who were on 0.5 mg/kg/day of oral isotretinoin for last 6 months and undergoing sessions of CFPC peels at 3-weekly intervals were analysed for improvement in acne, PIH and for any evidence of aberrant wound healing. Patients with personal or family history of hypertrophic scarring or keloidal tendency were excluded.

Results: Out of 80 patients excellent (> 75%) global improvement in acne count, pigmentation and scarring was seen in 70 patients (87.5%). Very good improvement (50-75%) was seen in 6 patients (7.5%) and good improvement (25-50%) were seen in 4 patients (5%). The treatment was well tolerated with no evidence of aberrant or delayed post peel healing.

Conclusion: CFPC peels seem to be safe and effective treatment for use in skin of colour acne

and PIH patients on oral isotretinoin. Thorough priming and strict sun protection and use of

post peel topical skin lightening agents improves the overall skin colour and PIH due to acne.

Past recommendations of not combining procedures during isotretinoin therapy does

not seem to hold ground. No evidence of delayed or aberrant post peel healing was seen.

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Abstract N°: 6185

A case Hajdu-Cheney syndrome caused by NOTCH2 gene mutation

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A case Hajdu-Cheney syndrome caused by NOTCH2 gene mutation

Introduction & Objectives:

Report a case of Hajdu-Cheney syndrome caused by NOTCH2 gene mutation to enhance clinical awareness of such diseases and serve as a reference for early diagnosis.

Materials & Methods:

Retrospective analysis of clinical data of a patient characterized by short stature and distinctive facial features, combined with literature review to discuss the clinical manifestations and diagnostic methods of Hajdu-Cheney syndrome.

Results:

The patient, a 14-year-old boy, was admitted due to "facial acne and papules for 2+ years, worsening with pustules for 1 month." Physical examination revealed short stature with distinctive facial features, low-set ears, congenital elbow dislocation, short and thick fingers with clubbing, hairy skin, a history of congenital patent ductus arteriosus, and no obvious acro-osteolysis. Renal ultrasound suggested bilateral renal cysts; hand X-rays revealed irregular distal phalanges with visible lytic lesions. Genetic testing identified a heterozygous variant in the NOTCH2 gene: c.6679_6680insG(p.His2227Argfs*17), a frameshift mutation (PVS1_Moderate). The diagnosis is currently considered as Hajdu-Cheney syndrome; polygenic acne.

Conclusion:

Hajdu-Cheney syndrome (HCS) is a rare autosomal dominant inherited skeletal disorder. Whole-exome sequencing aids in the early diagnosis of HCS, enabling timely intervention and providing guidance for family planning.

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Abstract N°: 6206

Bimekizumab cumulative clinical benefit in patients with moderate to severe hidradenitis suppurativa through 1 year of the BE HEARD I&II phase 3 trials

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, inflammatory skin disease which has a significant impact on health-related quality of life (HRQoL).1 Bimekizumab (BKZ) is a humanised IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A.2

Evaluating the cumulative benefit of treatment over time using area under the curve (AUC) analyses captures the speed, level and durability of patients' responses.3

Here, the cumulative benefit of BKZ treatment on HS clinical response (HiSCR) through 16 and 48 weeks is reported using AUC analyses.

Materials & Methods:

Pooled data from the randomised, double-blind, placebo (PBO)-controlled, multicentre BE HEARD I&II trials included an initial (Weeks 0–16) and maintenance (Weeks 16–48) treatment period. Adult patients were randomised 2:2:2:1 (initial/maintenance) to receive BKZ 320 mg every 2 weeks (Q2W)/Q2W, BKZ Q2W/every 4 weeks (Q4W), BKZ Q4W/Q4W or PBO/BKZ Q2W.

A HiSCR50/75/90 response was achieved at a given visit if there was a ≥50/75/90% reduction in the total abscess and inflammatory nodule count with no increase from baseline in abscess or draining tunnel count.

Cumulative clinical benefit was estimated as the total AUC through Week 48 for patients achieving HiSCR50/75/90. The estimated number of days that patients achieved each response was calculated as the proportion of the total possible AUC for each outcome multiplied by the total number of days in the time period (Weeks 0–16: 112 days, Weeks 0–48: 336 days).

Data are reported as observed case (OC), where N represents number of patients with a non-missing lesion count assessment in the given week, and percentages are calculated accordingly (i.e. where data recorded after an intercurrent event are included).

Results:

Overall, 868 patients were randomised to receive BKZ (N=288 to BKZ Q2W/Q2W, N=292 to BKZ Q2W/Q4W and N=288 to BKZ Q4W/Q4W) and 146 patients were randomised to receive PBO/BKZ Q2W.

Through 16 weeks, the total number of days patients achieved HiSCR50 was almost twice as high in the BKZ Q2W/Q2W (47 days), BKZ Q2W/Q4W (49) and BKZ Q4W/Q4W (47) groups vs PBO (27; **Figure**).

Similarly, to Week 16 the total number of days patients achieved HiSCR75 and HiSCR90 was also at least twice as high in the BKZ groups vs PBO (**Figure**).

The total number of days with HiSCR50 achievement to Week 48 remained higher for the BKZ groups (BKZ Q2W/Q2W: 211 days; BKZ Q2W/Q4W: 212; BKZ Q4W/Q4W; 206) vs the PBO/BKZ Q2W switchers group (178; **Figure**).

Comparable results were also observed for HiSCR75 and 90 at Week 48, with the BKZ groups maintaining higher responses vs PBO (**Figure**).

Conclusion:

High levels of cumulative clinical benefit were observed for patients who received BKZ through Week 16; benefits increased substantially through Week 48.

The cumulative clinical benefit of BKZ through 48 weeks was evident for both patients receiving continuous BKZ and placebo switchers. However, the total number of days of clinical outcome achievement remained higher in those on continuous BKZ vs placebo switchers, highlighting the importance of early treatment.

These results demonstrate the rapid, high-level and durable responses that can be obtained with BKZ.

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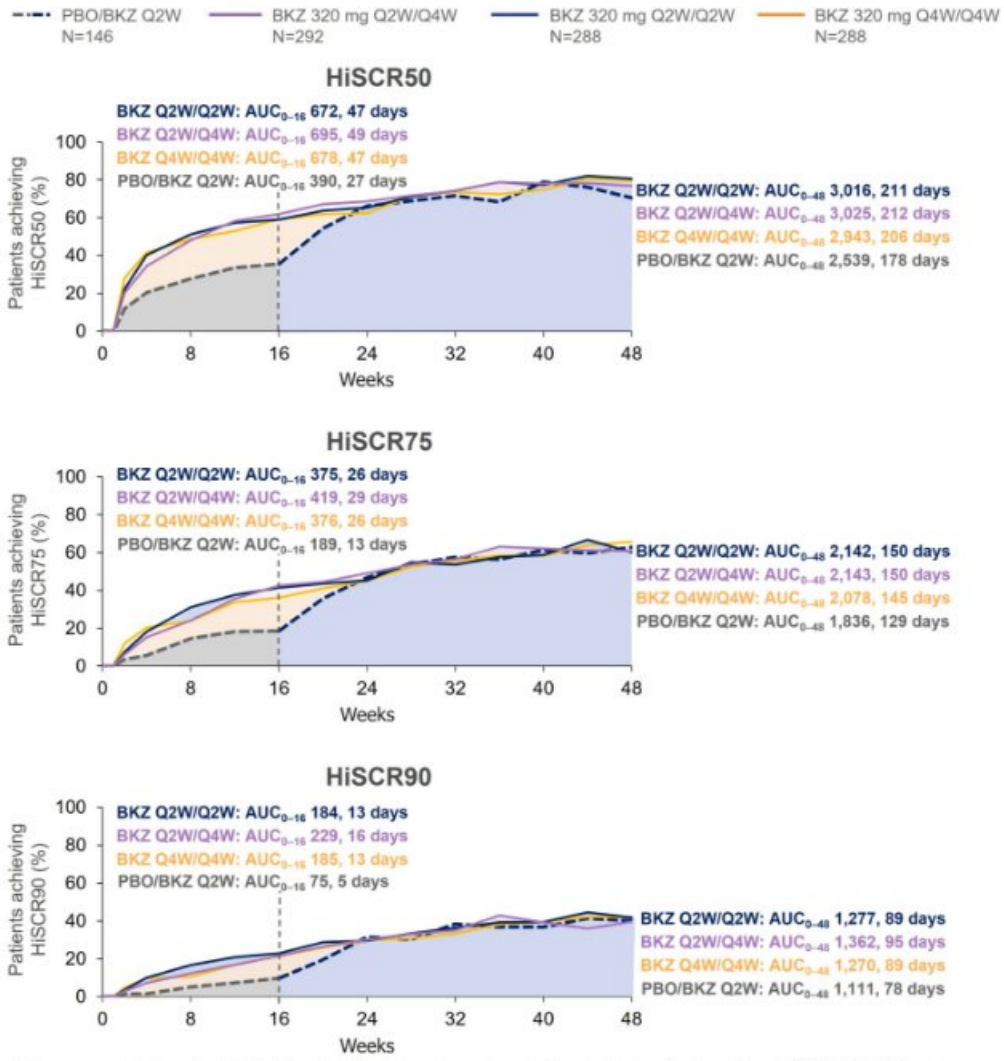
Figure. Bimekizumab cumulative clinical benefit in patients with moderate to severe hidradenitis suppurativa through 1 year of the BE HEARD I&II phase 3 trials



Data are presented as the total AUC and estimated mean number of days on that patients achieved HiSCR50/75/90 response through 48 weeks. AUC: area under the curve; BKZ: bimekizumab; HiSCR50/75/90: ≥50/75/90% reduction in the total abscess and inflammatory nodule count with no increase from baseline in abscess or draining tunnel count.

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Abstract N°: 6225

Redness Face… Not just because of dupilumab

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Introduction & Objectives:

The so-called ''dupilumab redness face'' is a growing dermatologic entity with complex classification and treatment. A morphological subtype of this spectrum is rosaceiform dermatitis, whose Th1 and Th17 pathogenesis is stimulated by the use of dupilumab.

JAK inhibitors (i-JAK) are broad-spectrum drugs that have been used in the management of this entity. Although they can produce acneiform reactions, the development of rosaceiform ''redness face'' has not been reported to date.

The aim of this paper is to describe the clinical experience of a single center in which three cases of ''red face'' rosacea secondary to the use of jak inhibitors have been diagnosed.

Materials & Methods:

Three patients on recent treatment with jak inhibitors who presented with rosaceiform ''redness face'' were included. A descriptive analysis of the clinical and evolutive characteristics of the patients was performed.

Results:

Three patients with atopic dermatitis, vitiligo and/or alopecia areata on treatment with upadacitinib (two of them) and baricitinib are presented. They presented erythematous papules in the facial region between 4 and 6 months after starting treatment with the jak inhibitor, without evidence of previous rosacea. One of them discontinued treatment with jak inhibitor and switched to tralokinumab. In the others it was maintained. In all cases topical treatments were applied with variable responses.

Conclusion:

The possible etiopathogenic entities of ''dupilumab redness face'' are of great clinical relevance and are diverse. Most of these dermatoses are explained by a dupilumab-induced dysregulation of the immune response. This drug, by inhibiting IL-4 and IL-13, produces an imbalance towards Th1 and Th17 pathways. In the pathogenesis of rosacea, an increase of these pathways is postulated as the origin.

Baricitinib, upadacitinib and abrocitinib are the i-JAKs indicated for atopic dermatitis, and although the development of acne is not uncommon both in the technical data sheet and in clinical practice, the development of ''redness face'' has not been reported to date. However, due to its mechanism of action, especially at the IL-4 level, an imbalance towards Th1 and Th17 may occur, favoring the development of rosacea.

So far, the development of rosaceiform dermatitis by i-JAKs has not been reported either in clinical trials or in real clinical practice. In fact, in some works it has been postulated as an effective treatment of the so-called ''dupilumab red face''. Taking into account that the use of i-JAKs in dermatology has been subsequent to the experience with dupilumab and its common etiopathogenic mechanisms, it is possible that in a short period of

time we will witness a proliferation of cases of this new entity. This fact, moreover, will add complexity to the management of these patients, who often pose a therapeutic challenge.

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Abstract N°: 6232

A worldwide study in 20 countries to assess the impact of acne on academic performance : The results of ALL study

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Introduction & Objectives:

Acne vulgaris is a distressing condition prevalent among most adolescents, often leading to notable psychosocial distress. Due to its impact on psychological well-being, acne has the potential to disrupt university studies in various ways. However, there is insufficient data on how acne specifically influences academic performance in affected individuals. Therefore, this study aimed to examine the prevalence of the impact of acne on academic performance (IAAP) among acne patients and identify factors associated with IAAP.

Materials & Methods:

This online survey was conducted among a representative sample of the population of acne patients attending university, aged 16 to 27 years, from 20 countries. The questionnaire focused on patient experience. It collected information on demographics, perceived stigma and burden of acne. The primary analysis of this study was the prevalence of IAAP. The secondary analysis was a comparison of people with and without IAAP to evaluate predictors: socio-demographics, burden and perceived stigma. Descriptive analyses were performed using absolute and percentage frequencies. The significance test was two-tailed and set at 5% ($p \leq 0.05$). Student's t-test and Pearson's chi-squared were used to compare HCE subjects who reported using DC with those who did not.

Results:

A population of 726 acne patients was selected, including 308 (42.4%) males and 419 (57.6%) females (mean age 20.8+/-2.5 years). Minimum age 16-27 years. Of the respondents, 266 (36.6%) reported that their acne had interfered with their studies. Because of their acne, 106 (14.6%) said they were less productive and had to take time off work, 39 (5.4%) only had to take time off work and 121 (16.7%) were less productive. People whose studies were affected by their acne were more likely to report personal embarrassment (67.6% vs. 39%, $p \leq 0.05$), sexual problems (33.5% vs. 10%, $p \leq 0.05$) and sleep problems (51.1% vs. 22.6%, $p \leq 0.05$). The impact of acne on studies was significantly associated with the risk of feeling stigmatized (68.0% vs 35.0%, $p \leq 0.05$). People whose studies were affected by their acne were more likely to report feeling excluded or rejected by others because of their skin condition (40.9% vs 15%, $p \leq 0.05$), feeling looked at with disgust (42.5% vs 12.8%, $p \leq 0.05$), being avoided for touching (32.2% vs 11.7%, $p \leq 0.05$) and being propositioned (39.8% vs 11.7%, $p \leq 0.05$).

Conclusion:

This is the first study to evaluate the impact of acne on academic performance in a large population. It found that 36.6% of students with acne reported an impact on academic performance. This can be explained by the impact of acne on self-esteem, leading to reduced confidence in social interactions and academic performance. In addition, the feeling of stigma associated with acne can make it difficult to concentrate during lectures or while studying

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Abstract N°: 6257

NLRP3 inhibition reduces pathogenic IL1-family signalling in Hidradenitis Suppurativa skin

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Introduction & Objectives: The pathogenesis of Hidradenitis Suppurativa (HS) remains poorly understood, hindering the development of effective therapies. Inflammatory signalling via the NLRP3 inflammasome is found to be upregulated and reasoned to be implicated in the pathogenesis of HS. Our aim is to elucidate the immunological underpinnings of HS to pave the way for innovative treatments, assess the efficacy of novel potent NLRP3 inhibitors, and characterise their therapeutic mechanism.

Materials & Methods: Patient biopsies from HS patients (Hurley stages II and III) and from age- and biopsy location-matched healthy donors were obtained, and the inflammatory environment was qualified by immunofluorescence staining. Profiling of inflammatory markers was performed in *ex vivo* HS skin explant cultures using a multiplex cytokine assay. To assess the involvement of the inflammasome specifically, we measured NLRP3-related proteins ASC, IL-1β, and IL-18. To determine the role of NLRP3 in HS, skin explants from moderate to severe patients were incubated in the presence of novel NLRP3 inhibitors or a reference compound, MCC950. RNA-seq was performed on treated tissue explants to uncover the putative therapeutic mechanisms.

Results: Elevated levels of the NLRP3 inflammasome-related proteins IL-1β, IL-18 and ASC were found in HS. Concurrently, pathogenic cytokines IL-17A, IL-36A, and IL-36G were detected, along with neutrophil chemoattractants IL-8, CXCL1, CXCL2 and CXCL5, pro-inflammatory cytokine IL-6, and fibrosis-associated markers MMP2 and MMP9. Treatment of patient explants with novel NLRP3 inhibitors with drug-like properties resulted in complete abrogation of IL-1β as well as reduced the level of ASC and of pathogenic cytokines, but not IL-18. Furthermore, neutrophil-attracting chemokines and inflammatory markers were also potently reduced, yet fibrosis-related markers remained unchanged. Lastly, RNA-seq results corroborated changes in expression seen at the protein level and provide new insight into the putative therapeutic mechanism.

Conclusion: Small molecule inhibition of NLRP3 resulted in significant reduction of IL-1β and other pathogenic cytokines, and of downstream chemokines involved in neutrophil recruitment. Our findings underscore the significant therapeutic promise of targeting the NLRP3 inflammasome in HS with novel potent small molecule inhibitors and support that IL-1 family cytokines are important disease mediators. Beyond HS, these NLRP3 inhibitors may be efficacious for other skin inflammatory diseases where IL-1 family cytokines and continuous neutrophil infiltration play a key pathogenic role.

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Abstract N°: 6356

Baseline comorbidities in patients with moderate to severe hidradenitis suppurativa treated with secukinumab: Insights from the SUNSHINE and SUNRISE phase 3 trials pooled data

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin disorder associated with a high disease burden and unmet therapeutic need.1–4 Patients with HS frequently present with multiple comorbidities that have a substantial impact on their quality of life and make treatment paradigms challenging.1–4 Secukinumab, an interleukin-17A inhibitor, has previously demonstrated sustained efficacy with a favourable safety profile in patients with moderate to severe HS in the phase 3 SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) clinical trials.5 Here, baseline comorbidities in patients enrolled in these trials are reported.

Materials & Methods: In both the SUNSHINE and SUNRISE trials, patients with moderate to severe HS were randomised to receive subcutaneous secukinumab 300 mg every 2 (SECQ2W) or 4 weeks (SECQ4W), or placebo (PBO) in a 1:1:1 ratio between weeks 0–16.5 Patients receiving PBO were switched to SECQ2W or SECQ4W while patients receiving SECQ2W or SECQ4W remained on the same treatment from weeks 16–52.5 The presence of comorbidities was assessed during the baseline screening visit; these are reported as preferred terms (PTs) based on the medical directory for regulatory activities version 25. The proportion of patients with comorbidities by disease severity (based on the international HS severity score system [IHS4; mild, ≤3; moderate, 4–10; severe, ≥11]) was also assesed.6 Data presented here are based on the observed, pooled data from SUNSHINE and SUNRISE.

Results: Overall, 1084 patients were enrolled in SUNSHINE and SUNRISE (SECQ2W [N=361]; SECQ4W [N=360]; PBO [N=363]). The overall mean (standard deviation) age was 36.2 (11.5) years and 56.3% (610/1084) of patients were female. At baseline, based on the IHS4 score, 80.6% (874/1084) of patients were categorised as having severe HS, 19.4% (210/1084) were categorised as having moderate HS, and none had mild HS. Baseline demographics and the most common comorbidities at baseline are shown in Table 1. The ongoing comorbidities reported at baseline were considered expected and in line with the known comorbidity profile for the HS population. The most common comorbidities reported overall included obesity (58.2% [631/1084]), hypertension (15.8% [171/1084]), depression (9.8% [106/1084]), asthma (7.5% [81/1084]), seasonal allergy (7.4% [80/1084]), and anxiety (7.1% [77/1084]). There were generally only small differences in the proportion of comorbidities between treatment groups. The proportion of patients with hypertension, depression, obesity, seasonal allergy, type 2 diabetes mellitus, acne, and gastroesophageal reflux disease was higher in the severe HS group than in the moderate HS group (Figure 1). The proportion of patients with current smoking status was similar between moderate (53.8% [113/210]) and severe (54.0% [472/874]) HS groups.

Conclusion: Baseline data from SUNSHINE and SUNRISE demonstrate the ongoing comorbidity burden that patients with HS experience and highlight the need for interdisciplinary management of HS.**

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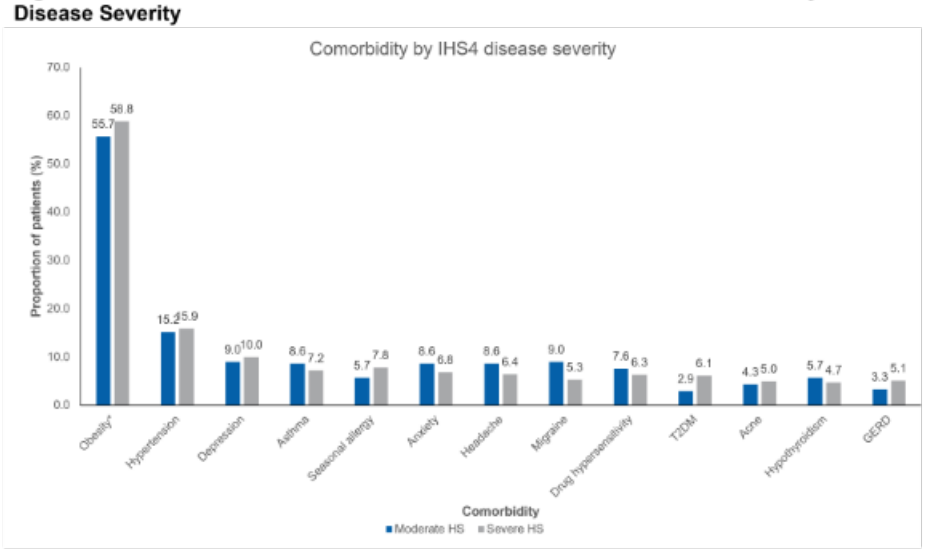
Table 1: Baseline Characteristics and the Most Common Comorbidities of Patients with HS Overall and by Treatment Group Based on Pooled Data from SUNSHINE and SUNRISE Trials

	SECQ2W (N=361)	SECQ4W (N=360)	PBO (N=363)	Overall (N=1084)
Age, years, mean (SD)	37.2 (12.0)	35.6 (11.6)	35.9 (11.0)	36.2 (11.5)
Females, n (%)	200 (55.4)	203 (56.4)	207 (57.0)	610 (56.3)
Race, n (%)				
White	278 (77.0)	285 (79.2)	282 (77.7)	845 (78.0)
Black or African American	33 (9.1)	29 (8.1)	24 (6.6)	86 (7.9)
Asian	35 (9.7)	39 (10.8)	43 (11.8)	117 (10.8)
Other	15 (4.2)	7 (2.0)	14 (3.9)	36 (3.3)
BMI, kg/m², mean (SD)	32.3 (7.8)	32.4 (7.7)	31.7 (7.2)	32.1 (7.6)
Smoking status, n (%)				
Never smoker	111 (30.7)	119 (33.1)	102 (28.1)	332 (30.6)
Current smoker	192 (53.2)	186 (51.7)	207 (57.0)	585 (54.0)
Former smoker	58 (16.1)	55 (15.3)	54 (14.9)	167 (15.4)
hsCRP, mg/L				
≤5	124 (34.3)	150 (41.7)	150 (41.3)	424 (39.1)
>5	237 (65.7)	210 (58.3)	213 (58.7)	660 (60.9)
Most common comorbidities (>5% in overall patients), PT, n (%)				
Obesity*	222 (61.5)	210 (58.3)	199 (54.8)	631 (58.2)
Hypertension	67 (18.6)	55 (15.3)	49 (13.5)	171 (15.8)
Depression	29 (8.0)	37 (10.3)	40 (11.0)	106 (9.8)
Asthma	28 (7.8)	26 (7.2)	27 (7.4)	81 (7.5)
Seasonal allergy	21 (5.8)	28 (7.8)	31 (8.5)	80 (7.4)
Anxiety	24 (6.6)	27 (7.5)	26 (7.2)	77 (7.1)
Headache	21 (5.8)	25 (6.9)	28 (7.7)	74 (6.8)
Migraine	20 (5.5)	26 (7.2)	19 (5.2)	65 (6.0)
Drug hypersensitivity	26 (7.2)	22 (6.1)	23 (6.3)	71 (6.5)
Type 2 diabetes mellitus	19 (5.3)	20 (5.6)	20 (5.5)	59 (5.4)
Acne	14 (3.9)	18 (5.0)	21 (5.8)	53 (4.9)
Hypothyroidism	16 (4.4)	22 (6.1)	15 (4.1)	53 (4.9)
Gastroesophageal reflux disease	14 (3.9)	24 (6.7)	14 (3.9)	52 (4.8)

*BMI ≥30kg/m2

BMI, body mass index; HS, hidradenitis suppurativa; hsCRP, high-sensitivity c-reactive protein; N, number of patients in group; n, number of patients with characteristic; PBO, placebo; PT, preferred term; Q2W, every 2 weeks; Q4W, every 4 weeks; SD, standard deviation; SEC, secukinumab 300 mg.

Figure 1: The Most Common Comorbidities in SUNSHINE and SUNRISE Trials by IHS4 Disease Severity



*BMI ≥30kg/m²

GERD, gastroesophageal reflux disease; HS, hidradenitis suppurativa; IHS4, International Hidradenitis Suppurativa Severity Score System; T2DM, type 2 diabetes mellitus

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Abstract N°: 6402

Skin microbiome dysbiosis in acne vulgaris determined by culture-independent amplicon-based next generation sequencing

Brüggemann Holger , Hamann Tina , Julia Gallinger , Manuela Fürstenau , Stefan Gallinat , Reuter Hendrik , Lund Michael , Feidenhansl Cecilie

Introduction & Objectives:

Acne vulgaris remains one of the most prevalent skin conditions worldwide, affecting close to 10% of the population and impacting the quality of life of millions of people. Current standard treatments for mild, moderate and severe acne are benzoyl peroxide, antibiotics and retinoids. As these drugs become an increasing concern in clinical practice due to varied outcomes and side effects, there is an unmet need for alternative treatment approaches.

Multiple factors contribute to acne, including increased sebum production, follicular hyperkeratinization, dysbiosis of the skin microbiome ("acne microbiome") and an inflammatory cascade. The skin bacterium *Cutibacterium acnes* is regarded as an important player in acne. However, *C. acnes* is also an ubiquitous colonizer of healthy skin, with possible host-beneficial functions, since loss of *C. acnes* is associated with frailty and ageing. Besides *C. acnes*, the possible contribution of other skin microorganisms to acne such as staphylococci, e.g. *Staphylococcus epidermidis,* is less well understood. Both species, *C. acnes* and *S. epidermidis* are multiphyletic and harbor multiple phylotypes with distinct properties that can have host-beneficial or -detrimental consequences. Phylotypes can be determined with single-locus sequence typing (SLST) approaches in complex samples such as skin swabs. In recent years it could be determined that different *C. acnes* phylotypes are enriched on healthy and acneic skin, respectively. Currently, little is known about the dysbiosis of the staphylococcal community in acne.

Materials & Methods:

Here, we determined the dysbiosis of *C. acnes* and staphylococcal communities in acne patients compared to age-matched healthy volunteers. We used two distinct culture-independent amplicon-based next-generation sequencing approaches to determine phylotypes of *C. acnes* and staphylococci from collected skin swab samples. In agreement with previous findings, we could show that the acne-associated dysbiosis of the *C. acnes* community was characterized by the relative increase of the SLST types A, C, F (all belonging to the phylotype IA), and a relative decline of SLST types D, H, K and L (belonging to phylotypes IA, IB, II and III, respectively).

Results:

Statistical significance could be obtained for the SLST types C and F (increase) and K (decrease). Regarding staphylococci, a decreased alpha diversity was associated with acne. The relative abundance of *S. epidermidis* types I and II increased in acne, whereas *S. epidermidis* type III decreased, as well as other staphylococcal species such as *S. hominis* (type I) and *S. saccharolyticus* (type I), albeit not statistically significant.

load

Conclusion:

Our data highlights the specific nature of the skin microbiome dysbiosis in acne on a phylotype resolution level. Besides the existence of specific *C. acnes* phylotypes associated with healthy skin and acne, respectively, our data suggest also the existence of specific phylogenetic linages of *S. epidermidis* associated with healthy and acneic skin

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Abstract N°: 6458

The Bidirectional Association Between Hidradenitis Suppurativa and Gout- A Population-based Study

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition involving the terminal hair follicles. Gout is a chronic disease characterized by the deposition of monosodium urate microcrystals in joints and manifests in episodes of acute arthritis.

Obesity is linked to both HS and gout. Obesity is described as an exacerbating factor of HS and contributes to chronic low-grade inflammation. Obesity influences uric acid metabolism thus increased gout.

The association between obesity, gout and HS suggests a shared pathophysiological mechanism underlying both conditions. However, the association between HS and gout has not been investigated in controlled epidemiological studies.

We investigated the association between gout and HS and evaluate whether the existence of gout increases the susceptibility for developing HS, and vice versa.

Materials & Methods:

A population-based study was conducted using both a cohort study and a case-control study design, comparing HS patients (n=6,779) with age-, sex- and ethnicity-matched control subjects (n=33,259) regarding the incidence of new-onset and the prevalence of preexisting gout. Adjusted hazard ratios (HRs) and adjusted odds (OR) ratios were calculated. Cox and logistic regressions were used for multivariate analyses, respectively.

Results:

We observed an increased risk for HS in patients with gout; the incidence rate of new-onset HS was 3.5 (95% CI, 1.9-5.8) /10,000PY as compared to 3.0 (95% CI, 2.3-3.9) /1,000PY in the control group. The odds ratios of HS were increased in patients with gout, as compared to the control group (fully-adjusted OR, 1.81; 95% CI, 1.21-2.72; P=0.004). The risk of gout was comparable between patients with HS and controls (fully-adjusted HR, 0.93; 95% CI, 0.50-1.70; P=0.798). Patients with both HS and gout were older at the onset of HS and had a greater prevalence of obesity, diabetes mellitus, hypertension, and ischemic heart disease, as compared to HS patients without gout.

Conclusion:

In the current study we observed that the ORs of HS were increased in patients with gout. The incidence rate of new-onset gout was increased among patients with HS as compared to the control group. Our observation is important for clinicians managing patients with HS or gout. Further research is required to explicate the pathomechanism underlying of our finding. **

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Abstract N°: 6592

Quality of life evaluation in hidradenitis suppurativa in Australia:Validation and outcomes of the HiSQoL questionnaire

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) is a debilitating chronic inflammatory skin condition. It has been reported in previous studies that HS has the greatest quality of life impact out of all cutaneous inflammatory diseases. The Hidradenitis Suppurativa Quality of Life Questionnaire (HiSQoL) was developed in response to a lack of HS-specific quality of life tools and has been employed and validated in a number of international cohorts. The aim of this observational, multicentre study was to validate the HiSQoL for use in the Australian population through examination of internal consistency, test-retest reliability and construct validity using the DLQI and HADS questionnaire.

Materials & Methods:

Participants who were dermatologist diagnosed with HS were identified via treating physicians. Written consent was collected and participants were asked to fill out a questionnaire regarding their general demographic information, current therapy for HS as well as the HiSQoL, DLQI and HADS questionnaires. Participants were also asked to retake the questionnaire 14 days later in order to assess for test-retest reliability. Overall results of the HiSQOL, DLQI and HADS questionnaires were first calculated. Appropriate validation statistics including Cronbach's alpha (internal consistency), test-retest reliability and construct validity (against the DLQI and HADS) were also conducted.

Results:

301 patients were consented to be involved in the study. 281 complete records were received for the questionnaires, with 104 patients conducting a second questionnaire. The mean HiSQoL score was 46.5 out of a possible 76 (SD=24.2). The mean symptom subscore was 4.2 (SD=5.5), psychosocial subscore 5.8 (SD=7.6) and activities adaptation subscore 8.8 (SD=11.9). This corresponds to a very large impact on quality of life. The Average DLQI score was 23.2 (SD=11.51) and the average HADS score was 29.3 (SD=11.5) corresponding to an extremely large effect on quality of life.

Measures of internal consistency for the HiSQoL were acceptable with the Cronbach alpha calculated at 0.9564 indicating an excellent level of agreement. Overall Test-Retest reliability for the HiSQoL was 0.95, with test-retest reliability above 0.89 for all HiSQoL subscales. Convergent validity against the DLQI was high as expected (0.89). Patient Characteristics significantly associated with the HiSQoL in univariate analysis included age of onset (R= -0.156 p=0.01) and suggesting that a younger age of onset is associated with a worse quality of life.

Conclusion:

The HiSQoL is a simple well validated quality of life outcome measure in Hidradenitis Suppurativa. It has

demonstrated in the Australian context that HS has a very severe impact on quality of life despite the use of available therapies.

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Abstract N°: 6634

Precision in Surgical Excision of Hidradenitis Suppurativa: A Retrospective Study Utilizing Ultrasound-Guided Surgery

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition characterized by painful nodules, abscesses, and fistulas, predominantly occurring in areas with apocrine glands. It affects approximately 1-4% of the population, significantly impacting quality of life. The pathogenesis of HS is multifactorial, involving genetic and environmental factors, with tobacco use and obesity being primary risk factors. Diagnosis is primarily clinical, with Hurley's classification being the most commonly employed for severity stratification. The importance of ultrasonography in the diagnostic and therapeutic management of this condition is increasingly recognized. The treatment approach is multidisciplinary and may include antibiotics, immunomodulators, and surgery.

The objective of the present study was to assess the effectiveness of ultrasound-guided surgery in the treatment of HS, specifically focusing on the precision of surgical excision and its impact on postoperative recurrence rates and complications

Materials & Methods:

An observational, analytical, and retrospective study was conducted on a cohort of 112 patients with HS who underwent surgical intervention with prior perioperative ultrasound planning at Manises Hospital from 2015 to October 2023. Data were collected on medical history, disease duration, previous and concurrent treatments, and characteristics of the intervention through patient medical records

Results:

The average age of the patients was 43.22 years, with a predominance of males (62.5%). The most prevalent risk factors included smoking (62.5%) and obesity (BMI > 30, 34.82%). Hurley classification II-III was predominant among the operated patients. The recurrence rate was 0%, with an average follow-up of 22.17 months. A low incidence rate of post-surgical complications was observed, with only one case of surgical wound infection and two cases of postoperative bleeding.

Conclusion:

Ultrasound-guided surgery in patients with HS demonstrates notable effectiveness in reducing the rate of recurrence and minimizing post-surgical complications. The inclusion of biological treatments did not increase the incidence of postoperative adverse events, highlighting the importance of a multidisciplinary approach in managing this complex pathology

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Abstract N°: 6640

Photodynamic Therapy (PDT) with Blue Light in Acne Treatment: Efficacy and Practical Applications

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Photodynamic Therapy (PDT) with Blue Light in Acne Treatment: Efficacy and Practical Applications

Abstract:

Introduction & Objectives:

Photodynamic therapy (PDT) with blue light has emerged as a promising treatment for acne. This abstract aims to evaluate its efficacy and safety while highlighting practical considerations in applying this modality for acne management.

Materials & Methods:

A literature review was conducted using medical databases to identify clinical studies that assessed the effectiveness of PDT with blue light in treating acne. Included studies detailed patient demographics, PDT protocols (photosensitizing agent concentration and application, light exposure time), treatment outcomes, and adverse event profiles. Primary outcomes were the reduction in lesion count, improvement in skin appearance, and patient satisfaction.

Results:

Studies demonstrated that PDT with blue light, typically involving the application of 5-aminolevulinic acid (ALA) or methyl aminolevulinate (MAL) as a photosensitizer, significantly reduced both inflammatory and non-inflammatory acne lesions. Improvement rates ranged from moderate to substantial across different patient populations. Treatment sessions varied in number and duration, with most protocols involving multiple sessions over weeks to months. Adverse effects were generally mild and transient, including erythema, photosensitivity, and temporary pigmentation changes. Patient satisfaction rates were high due to the noticeable reduction in acne severity and improved skin texture.

Conclusions:

PDT with blue light offers a safe and effective treatment for acne, providing a non-antibiotic alternative for patients seeking a less invasive approach. The photosensitizing agents used in combination with blue light enhance the selective destruction of acne-causing bacteria and sebaceous glands, resulting in marked improvement. Practitioners should tailor treatment protocols to individual patient needs, considering factors like acne severity, skin type, and previous treatment history. Further research is warranted to refine application techniques, optimize treatment parameters, and expand the understanding of the long-term outcomes of PDT in acne therapy.

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Abstract N°: 6675

Assessment of overweight and obesity in a Colombian population with HS

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is an inflammatory and chronic disease that affects pilosebaceous areas such as armpits, groin and buttocks. There are many comorbidities associated to HS such as metabolic syndrome, dyslipidemia, hypertension, polycystic ovary syndrome, insulin resistance, spondyloarthropathies and inflammatory bowel disease; nevertheless, obesity is frequent and it has been suggested to be related to higher disease severity. We aim to evaluate the impact of overweight and obesity on the severity of HS, and describe the comorbidities in patients with HS and overweight and obesity.

Materials & Methods:

A descriptive retrospective study was conducted from January 2019 to March 2024 in a dermatological center in Bogotá, Colombia. Data was collected from medical records of patients with diagnosis of HS. Variables included were age, sex, disease severity measured by using Hurley classification, body mass index (BMI), and medical history. A bivariate analysis of overweight/obesity according to BMI and severity of HS was performed. Data was collected and statistical analysis was performed in Microsoft Excel.

Results:

Of the 50 patients, 72.0% were women. Men showed more cases of severe disease (35.7%) than women (25.0%). The median age was 33 years. The most prevalent age group for the disease was 31-40 years (40.0%). 50.0% of patients had a normal BMI, 34.0% in the overweight range, 14.0% in the obese range, and 2.0% in the underweight range. The 42.0% of patients were mild cases, 30.0% moderate and 28.0% severe. Patients with severe disease and normal BMI were 57.1%. Overweight individuals had a mild disease presentation (58.8%), while obese patients had the same frequency of severe and moderate cases (42.9% each); only 14.3% of these patients had mild disease. Hypertension, diabetes mellitus and hypothyroidism were recorded in 14.0%, 8.0% and 2.0% of patients, respectively. Acne was present in 42.0% of patients, seborrheic dermatitis in 10.0%, atopic dermatitis and rosacea in 8.0% each, and psoriasis in 2.0%. All patients with acne and obesity had severe disease stages.

Conclusions:

As observed in the literature, HS was more frequent in women; however, the severity of the disease is greater in men. On the other hand, half of the patients evaluated were of normal weight and most had mild disease. It is striking that more than half of the patients with a normal BMI had a severe presentation of the disease. More than 8 out of 10 patients with obesity had moderate and severe disease presentation, which can be explained by the fact that a BMI ≥30 can trigger a systemic proinflammatory state, increasing susceptibility to various comorbidities such as those found. On the other hand, it was observed that all patients with obesity and acne had severe disease, which could suggest that the presence of acne in patients with HS in early stages could develop severe disease. Finally, we considered the frequency of patients with comorbidities was low because 4 out of 5 patients were younger than 40 years old. Despite the limitations of the study given by the sample size, our results are an approach to reevaluate risk factors or possible indicators of disease severity that would allow individualizing

treatment. Further studies with larger populations are required to corroborate these results.

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Abstract N°: 6687

Impact of acne on academic performance: a study of 736 students from 20 countries ; The results of ALL project

Bruno Halioua[1], Marketa Saint Aroman[2], Catherine Baissac[2], Christelle Le Roux Villet[3], Yaron Benhayoun[4], Charles Taieb[5], Charbel Skayem[6]

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Introduction & Objectives:

Acne vulgaris is a distressing condition prevalent among most adolescents, often leading to notable psychosocial distress. Due to its impact on psychological well-being, acne has the potential to disrupt university studies in various ways. However, there is insufficient data on how acne specifically influences academic performance in affected individuals. Therefore, this study aimed to examine the prevalence of the impact of acne on academic performance (IAAP) among acne patients and identify factors associated with IAAP.

Materials & Methods:

This online survey was conducted among a representative sample of the population of acne patients attending university, aged 16 to 27 years, from 20 countries. The questionnaire focused on patient experience. It collected information on demographics, perceived stigma and burden of acne. The primary analysis of this study was the prevalence of IAAP. The secondary analysis was a comparison of people with and without IAAP to evaluate predictors: socio-demographics, burden and perceived stigma. Descriptive analyses were performed using absolute and percentage frequencies. The significance test was two-tailed and set at 5% ($p \leq 0.05$). Student's t-test and Pearson's chi-squared were used to compare HCE subjects who reported using DC with those who did not.

Results:

A population of 726 acne patients was selected, including 308 (42.4%) males and 419 (57.6%) females (mean age 20.8+/-2.5 years). Minimum age 16-27 years. Of the respondents, 266 (36.6%) reported that their acne had interfered with their studies. Because of their acne, 106 (14.6%) said they were less productive and had to take time off work, 39 (5.4%) only had to take time off work and 121 (16.7%) were less productive. People whose studies were affected by their acne were more likely to report personal embarrassment (67.6% vs. 39%, $p \leq 0.05$), sexual problems (33.5% vs. 10%, $p \leq 0.05$) and sleep problems (51.1% vs. 22.6%, $p \leq 0.05$). The impact of acne on studies was significantly associated with the risk of feeling stigmatized (68.0% vs 35.0%, $p \leq 0.05$). People whose studies were affected by their acne were more likely to report feeling excluded or rejected by others because of their skin condition (40.9% vs 15%, $p \leq 0.05$), feeling looked at with disgust (42.5% vs 12.8%, $p \leq 0.05$), being avoided for touching (32.2% vs 11.7%, $p \leq 0.05$) and being propositioned (39.8% vs 11.7%, $p \leq 0.05$).

Conclusion:

This is the first study to evaluate the impact of acne on academic performance in a large population. It found that 36.6% of students with acne reported an impact on academic performance. This can be explained by the impact of acne on self-esteem, leading to reduced confidence in social interactions and academic performance. In addition,

the feeling of stigma associated with acne can make it difficult to concentrate during lectures or while studying

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Abstract N°: 6715

The impact of lesion type on clinical response with secukinumab in patients with moderate to severe hidradenitis suppurativa: A post hoc analysis of the pooled data from SUNSHINE and SUNRISE phase 3 trials

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory disease manifesting as deep and painful dermal inflammatory nodules, abscesses and tunnels.1 Given the heterogeneous clinical manifestations of HS, it is important to understand the impact of type and number of lesions such as draining tunnels (DT) and abscesses and nodules (AN) count, on treatment response.2 A post hoc analysis of pooled data from SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) phase 3 trials of secukinumab (SEC) was performed to evaluate the impact of lesion type, and count at baseline (BL), on treatment response using HiSCR and IHS4-55.

Materials & Methods: Patients with moderate to severe HS were randomised to receive subcutaneous SEC 300 mg every 2 (SEC Q2W) or 4 weeks (SEC Q4W), or placebo (PBO) in a 1:1:1 ratio between weeks 0 and 16. Patients receiving PBO were switched to SEC Q2W or SEC Q4W while those receiving SEC Q2W or SEC Q4W remained on the same treatment from week 16 to 52.3 Patients were categorised based on the number of DT (0, 1 to 2, ≥3) and by AN count (≤7, >7 to ≤10, >10 to ≤16, >16) at BL. Only patients with no DT at BL were included in the AN subgroups. The proportion of patients achieving HiSCR (≥50% reduction from BL in the total AN count, with no increase in abscesses or DT)4 and IHS4-55 (55% reduction in the total IHS4 score)5 response in each subgroup at week 16 and 52 was assessed. No statistical testing was applied as the analyses were exploratory.

Results: Overall, 1084 patients were enrolled in SUNSHINE and SUNRISE (SEC Q2W: N=361; SEC Q4W: N=360; PBO: N=363). The number of patients in each DT and AN subgroup is provided in **Table 1**. Across all subgroups, a higher proportion of patients in the SEC Q2W and SEC Q4W arms achieved HiSCR compared to PBO at week 16. At week 16 and 52, there was a trend for increased rates of HiSCR in patients with no DT compared to those with DT at BL. There was no specific trend for response status in the AN count subgroups at BL. At week 52, compared to week 16, a trend towards further improvement in HiSCR was observed in patients across the DT (52.5%–66.0%) and AN (53.6%–76.5%) subgroups with SEC (**Figure 1 and 2**). Similarly, across DT and AN subgroups, a higher proportion of IHS4-55 responders were observed with SEC compared to PBO at week 16, with a trend for further improvement through week 52 (**Figure 1 and 2**). The HiSCR and IHS4-55 response achieved at week 16 with SEC treatment was sustained through week 52, with a trend for increased response rates over time across all subgroups. Patients on PBO who were switched to SEC at week 16 also achieved HiSCR and IHS4-55 response at

week 52 across all DT and AN subgroups, similar to those receiving continuous SEC treatment.

Conclusion: Regardless of the presence or absence of DT and AN count at BL, compared to PBO, treatment with SEC provided improvements in HiSCR and IHS4 response at week 16 in patients with moderate to severe HS. SEC treatment was associated with a trend for improved HiSCR and IHS4 response in patients with no DT compared to those with DT at BL, and the effect was sustained through week 52. In patients with HS, greater improvements in HiSCR and IHS4 response may be obtained with SEC treatment when initiated prior to the development of DT.

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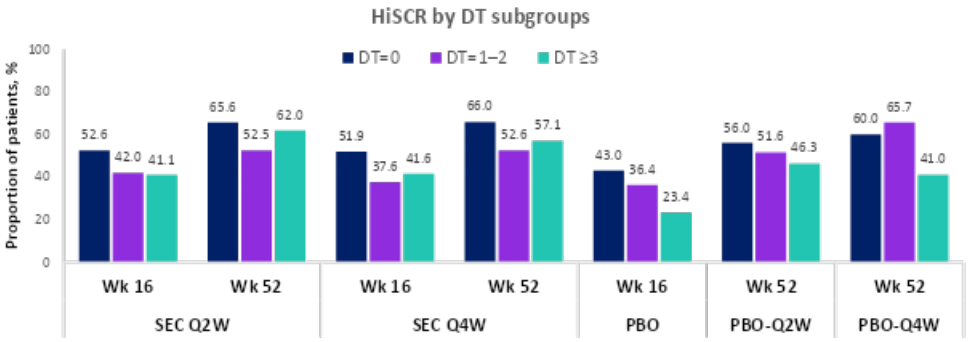
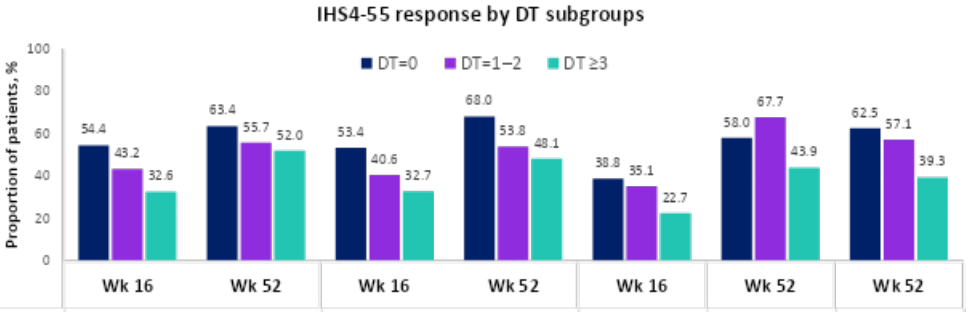
Table 1: Number of patients by lesion type at baseline

	SEC Q2W N=361	SEC Q4W N=360	PBO N=363
DT subgroups at baseline, n (%)			
DT=0	122 (33.8)	142 (39.4)	136 (37.5)
DT=1 to 2	86 (23.8)	106 (29.4)	91 (25.1)
DT ≥3	153 (42.4)	112 (31.1)	136 (37.5)
AN subgroups in patients with DT=0 at baseline, n (%)			
AN ≤7	35 (9.7)	46 (12.8)	56 (15.4)
AN >7 to ≤10	31 (8.6)	25 (6.9)	30 (8.3)
AN >10 to ≤16	28 (7.8)	41 (11.4)	30 (8.3)
AN >16	28 (7.8)	30 (8.3)	20 (5.5)

AN, abscesses and nodules; DT, draining tunnels; PBO, placebo; SEC Q2W, secukinumab 300 mg every 2 weeks; SEC Q4W, secukinumab 300 mg every 4 weeks. Pooled observed data from the SUNSHINE and SUNRISE trials.

Figure 1: HiSCR and IHS4-55 response by DT subgroups

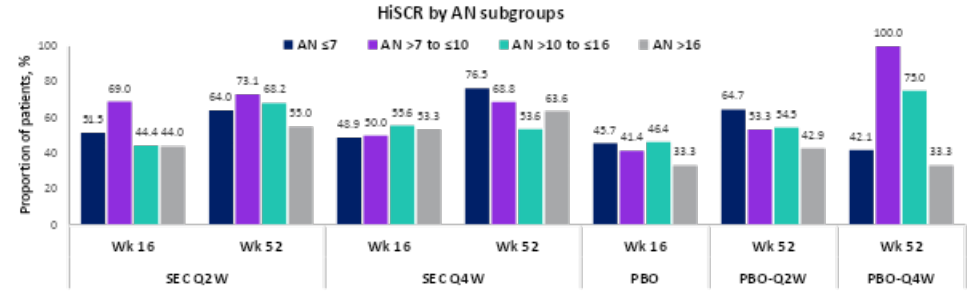


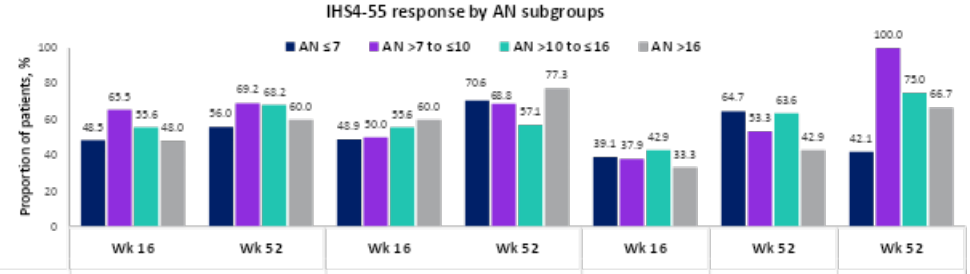


m	SEC Q2W		SEC Q4W		PBO	PBO-Q2W	PBO-Q4W
DT=0	114	93	133	100	121	50	40
DT=1–2	81	61	101	78	77	31	35
DT ≥3	141	100	101	77	128	41	61

HiSCR response is defined as at least a 50% reduction from baseline in the total abscess and inflammatory nodule count, with no increase from baseline in abscesses or draining tunnels; IHS4-55 is a dichotomous outcome based on a 55% reduction in the total IHS4 score. DT, draining tunnels; m, number of subjects evaluable; PBO, placebo; SEC Q2W, secukinumab 300 mg every 2 weeks; SEC Q4W, secukinumab 300 mg every 4 weeks. Pooled observed data from the SUNSHINE and SUNRISE trials.

Figure 2: HiSCR and IHS4-55 response by AN subgroups in patients with no draining tunnels at baseline





m	SEC Q2W		SEC Q4W		PBO	PBO-Q2W	PBO-Q4W
AN ≤7	33	25	45	34	46	17	19
AN >7 to ≤10	29	26	22	16	29	15	6
AN >10 to ≤16	27	22	36	28	28	11	12
AN >16	25	20	30	22	18	7	3

HiSCR response is defined as at least a 50% reduction from baseline in the total abscess and inflammatory nodule count, with no increase from baseline in abscesses or draining tunnels; IHS4-55 is a dichotomous outcome based on a 55% reduction in the total IHS4 score. AN, abscesses and nodules; m, number of subjects evaluable; PBO, placebo; SEC Q2W, secukinumab 300 mg every 2 weeks; SEC Q4W, secukinumab 300 mg every 4 weeks. Pooled observed data from the SUNSHINE and SUNRISE trials.

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Abstract N°: 6758

Omega-3 Fatty Acids Mitigating Isotretinoin-Induced Side Effects

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Introduction & Objectives:

Systemic isotretinoin remains a cornerstone for treating severe acne vulgaris. However, its associated mucocutaneous side effects and hypertriglyceridaemia may lead to treatment non-adherence and discontinuation. This review explores the potential of Omega-3 fatty acids (O3FA) as an adjunctive treatment to mitigate these adverse effects of isotretinoin.

Materials & Methods:

Data from various clinical trials were analysed. Control arms were compared with active treatment arms to evaluate treatment efficacy.

Results:

A 16-week case-controlled study involving 104 participants (64.4% females; mean age 22.8 years) demonstrated that the addition of O3FA (1 g/day) to isotretinoin therapy (0.5 mg/kg) significantly reduced the incidence of dry nose and skin throughout the 16-week period ($p < 0.05$). Dry lips were also significantly reduced during the first 12 weeks ($p < 0.05$), although this effect was not statistically significant in the final 4 weeks. Additionally, dry eyes showed improvement during the initial 4 weeks ($p < 0.05$), with no significant reduction thereafter.

A separate randomised controlled trial with 60 participants (66.7% female; mean age 26.1 years) further confirmed the benefits of O3FA in reducing xerosis and dry lips. Participants receiving O3FA in conjunction with isotretinoin experienced significant improvements in xerosis ($p < 0.001$) and dry lips ($p = 0.013$) compared to those on isotretinoin alone.

Concerning isotretinoin-induced hypertriglyceridaemia, a longitudinal survey of 39 individuals revealed a 49% mean increase in triglyceride levels in the isotretinoin monotherapy group, in contrast to a 13.9% increase observed in the group taking O3FA alongside isotretinoin ($p = 0.04$). This data underscores the potential of O3FA not only in mitigating dermatological side effects but also in addressing metabolic disturbances associated with isotretinoin treatment.

No adverse effects related to O3FA supplementation were reported in these studies, suggesting a favourable safety profile. Collectively, these findings emphasise the role of O3FA as a beneficial adjunct in the management of isotretinoin therapy, potentially enhancing patient compliance and treatment outcomes through the reduction of side effects.

Conclusion:

The inclusion of O3FA as a complementary treatment with isotretinoin shows promising potential to improve patient adherence by reducing adverse effects. Although existing studies provide valuable insights, further large-scale randomised controlled trials are needed to substantiate these findings and fully determine the efficacy and

safety of O3FA as an adjunct therapy in dermatological practices. This review highlights the need for dermatologists to consider a holistic approach, including nutraceuticals like O3FA, in the management of acne to enhance treatment outcomes.

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Abstract N°: 6760

Exploring the interplay of SAPHO syndrome and follicular occlusion tetrad: an academic investigation into the complex dynamics involving two conditions and an individual

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Introduction & Objectives:

The term "SAPHO syndrome" derives from the initial letters of its defining features: synovitis, acne, pustulosis, hyperostosis, and osteitis. The infrequent association with follicular occlusion tetrad (acne conglobate, hidradenitis suppurativa, dissecting cellulitis, and pilonidal sinus), underscores the complexities involved in its management and treatment.

Materials & Methods:

We document the case of a male of Romany descent, who exhibited both SAPHO syndrome and follicular occlusion tetrad.

Results:

A 40-year-old male patient presented to our dermatology department with a constellation of clinical manifestations. These included scarring alopecia alongside multiple keloid lesions scattered across the scalp region. Additionally, he exhibited a complex array of cutaneous findings, encompassing deep-seated nodules, abscesses, draining tracts, and fibrotic scars affecting the anterior thorax and the groin. Further dermatological scrutiny revealed all kind of acne-related scars.

Clinically, the patient presented with diffuse arthralgias, fatigue, and anorexia, suggestive of systemic involvement. A detailed medical history revealed the onset of acne and acne-like lesions in 2011, leading to a diagnosis of acne conglobate, which showed limited response to isotretinoin therapy over a year. Subsequent diagnoses of hidradenitis suppurativa and dissecting cellulitis of the scalp in 2014 prompted treatment initiation with etanercept, resulting in partial resolution of scalp lesions. Concurrently, the patient underwent multiple surgical interventions for recurrent pilonidal cysts. From 2015 to 2022, the patient was lost to follow-up. In 2022, the patient reported nonsystematic polyarthralgias and received intermittent courses of non-steroidal anti-inflammatory drugs with modest symptomatic relief. In 2024, the patient sought evaluation at our dermatology department, undergoing extensive diagnostic workup including serial radiological assessments, interdisciplinary consultations, primarily with rheumatological specialists, and paraclinical investigations.

Collectively, the findings supported a diagnosis of SAPHO syndrome associated with follicular occlusion tetrad. Initiation of adalimumab therapy resulted in notable improvement after 2 and a half months of treatment, reflecting a positive therapeutic response

Conclusion:

The uniqueness of our case lies in the concurrent occurrence of two rare diseases, SAPHO syndrome and follicular occlusion tetrad, which individually represent uncommon clinical entities. Additional research is therefore imperative to elucidate the intricate relationship between SAPHO syndrome and follicular occlusion tetrad.

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Abstract N°: 6766

Depth and Durability of the IHS4 Efficacy Response to Upadacitinib Treatment in Moderate-to-Severe Hidradenitis Suppurativa (HS)

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a progressive disease with significant morbidity, and therefore early intervention is paramount. Systemic therapies that target proinflammatory cytokine-driven mechanisms are expected to achieve higher clinical efficacy benchmarks and improve outcomes for patients (pts) with HS. A significant proportion of pts with moderate-to-severe HS treated with the selective JAK inhibitor upadacitinib (UPA) achieve stringent efficacy endpoints of HiSCR 75, HiSCR 90, and IHS4-55. To further explore the depth and durability of the efficacy response to UPA, we assessed the proportion of pts achieving even greater clinical efficacy endpoints of IHS4-75, 90, and 100, and those who were able to achieve inactive or mild disease according to the IHS4 classification.

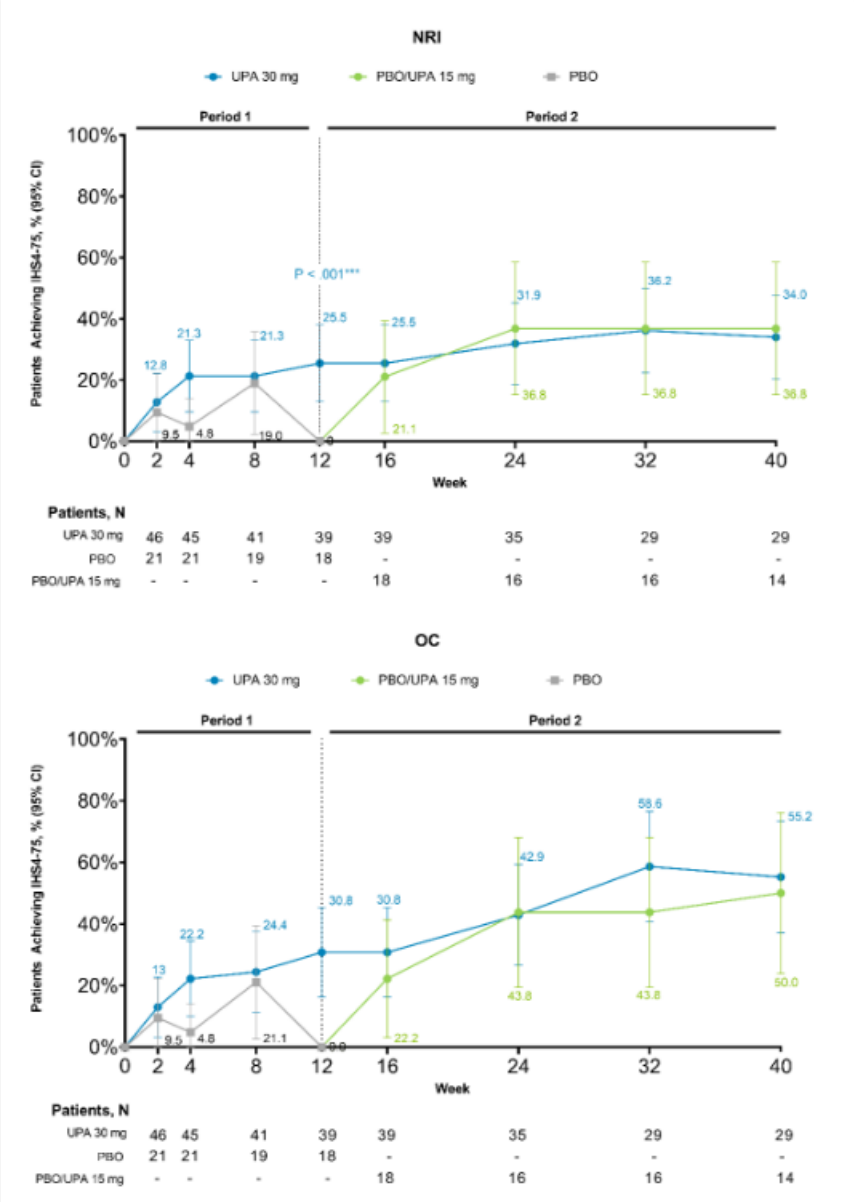
Materials & Methods: In the phase 2, multicenter, randomized, double-blinded, placebo-controlled study (NCT04430855), pts (≥ 18 yrs) with moderate-to-severe HS were randomized (2:1) to once daily oral UPA 30 mg or placebo for 12 weeks (period 1). After 12 weeks, pts receiving placebo switched to blinded UPA 15 mg, and pts receiving UPA 30 mg continued assigned treatment through week 48 (period 2). Primary endpoint was HiSCR 50 at week 12 (UPA 30 mg vs historical placebo rate based on PIONEER I/II clinical trials). Post hoc efficacy assessments through week 40 included proportion of pts achieving ≥ 75%, ≥ 90% and 100% reduction from baseline in IHS4 (IHS4-75/IHS4-90/IHS4-100), and proportion of pts achieving a shift in IHS4 disease category. Pts receiving UPA 30 mg were compared to those receiving in study PBO who switched to UPA 15 mg. Statistical methods used to handle missing data included nonresponder imputation (NRI) and observed cases (OC).

Results: A total of 68 pts (77.9% female; mean [SD] age 36.6 [11.9] years; N = 47 for UPA 30 mg and N = 21 for PBO) were enrolled, with over 85% experiencing severe HS (IHS4 score > 11). At week 12 (NRI), a higher proportion of pts receiving UPA 30 mg (n = 47) achieved IHS4-75 (25.5%, nominal P < .001; Figure 1), IHS4-90 (12.8%, nominal P < .003; Figure 2), and IHS4-100 (6.4%, nominal P = .032; Figure 3) vs placebo; no pts in the placebo group achieved these endpoints. At week 40 (NRI), IHS4-75, IHS4-90, and IHS4-100 was achieved by 34.0%, 17.0%, and 8.5% of pts receiving UPA 30 mg (n = 47), respectively, and by 36.8%, 26.3%, and 10.5% of pts who switched from PBO to UPA 15 mg (n = 19), respectively. The proportions of pts receiving UPA who achieved these endpoints at week 12 and week 40 were slightly higher for the OC analysis (Figures 1-3). At week 12 (OC), 7.7% and 15.4% of pts receiving UPA 30 mg achieved an IHS4 score of 0 (no inflammatory activity) and an IHS4 score of 1-3 (mild disease), respectively (Figure 4); no pts in the placebo group achieved an IHS4 score ≤ 3. At week 40 (OC), 13.8% and 27.6% of pts receiving UPA 30 mg and 14.3% and 21.4% of pts who switched from PBO to UPA 15 mg achieved an IHS4 score of 0 and of 1-3, respectively.

Conclusion: Pts treated with UPA achieved the higher efficacy endpoints of IHS4-75, 90, and 100, by week 12. A

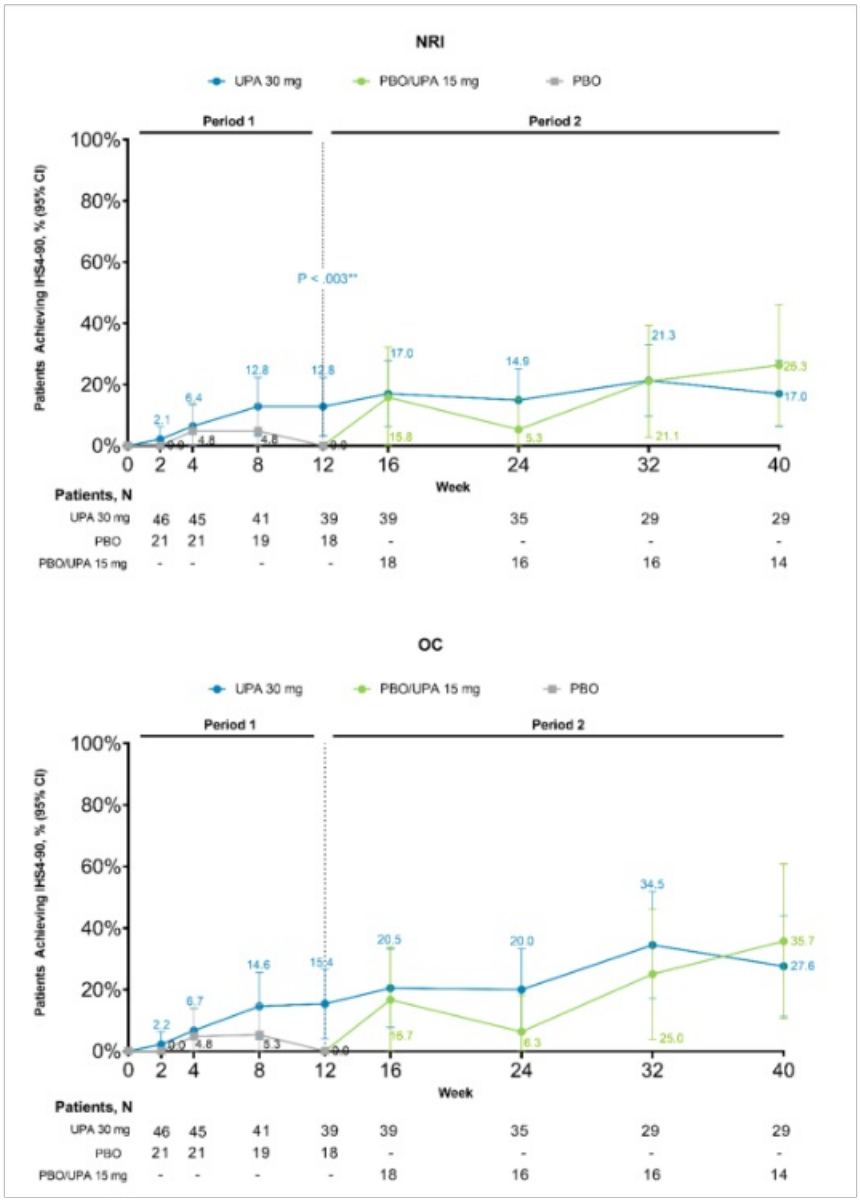
subset of pts achieved inactive/mild disease activity by week 12. The response to UPA was durable, as a greater proportion of pts achieved IHS4-75/90/100 and showed improvement in disease severity through week 40. In summary, with continued treatment, UPA provides the potential for pts with moderate-to-severe HS to achieve efficacy thresholds beyond the already stringent IHS4-55.

Figure 1. Achievement of IHS4-75 Over Time (NRI and OC)



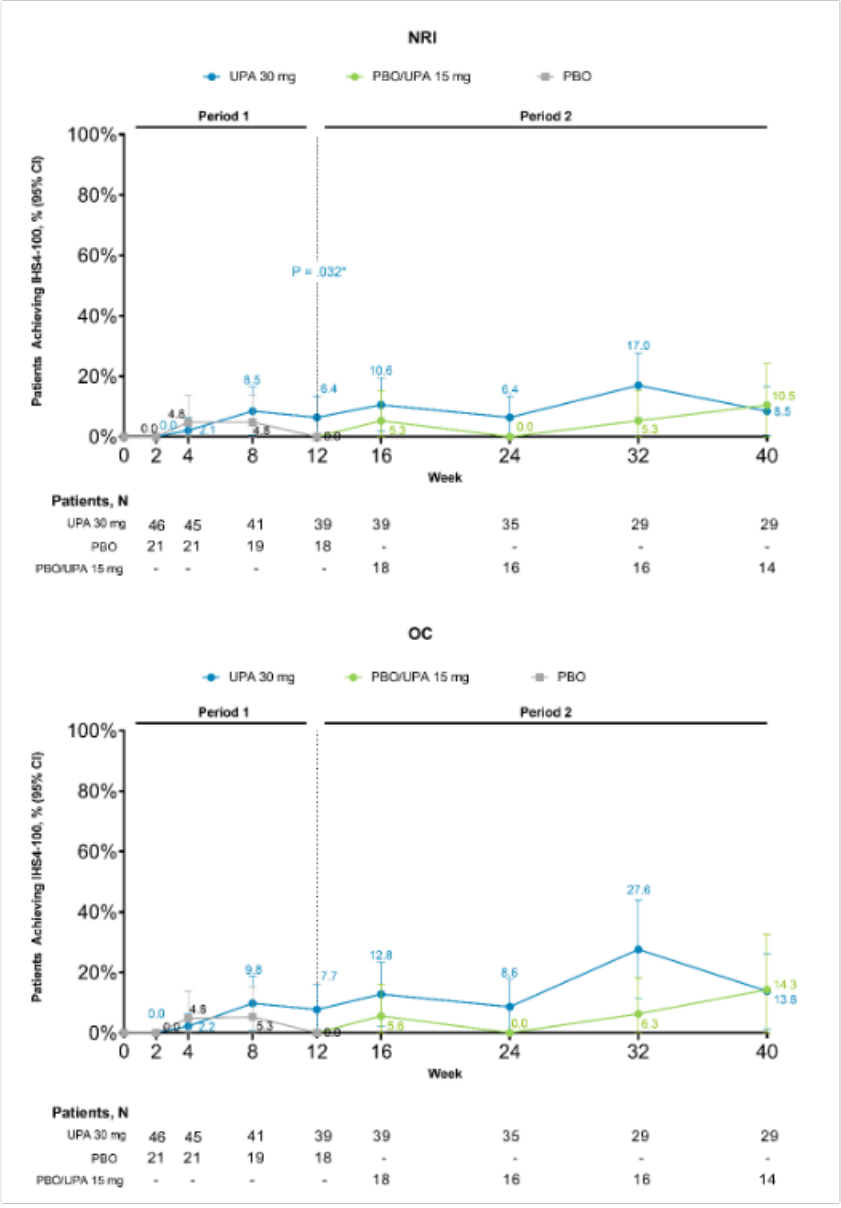
CI, confidence interval; IHS4-75, a ≥ 75% reduction in International Hidradenitis Suppurativa Score System; NRI, nonresponder imputation; OC, observed cases; PBO, placebo; UPA, upadacitinib. ***Nominal; statistically significant at the 0.001 level.

Figure 2. Achievement of IHS4-90 Over Time (NRI and OC)



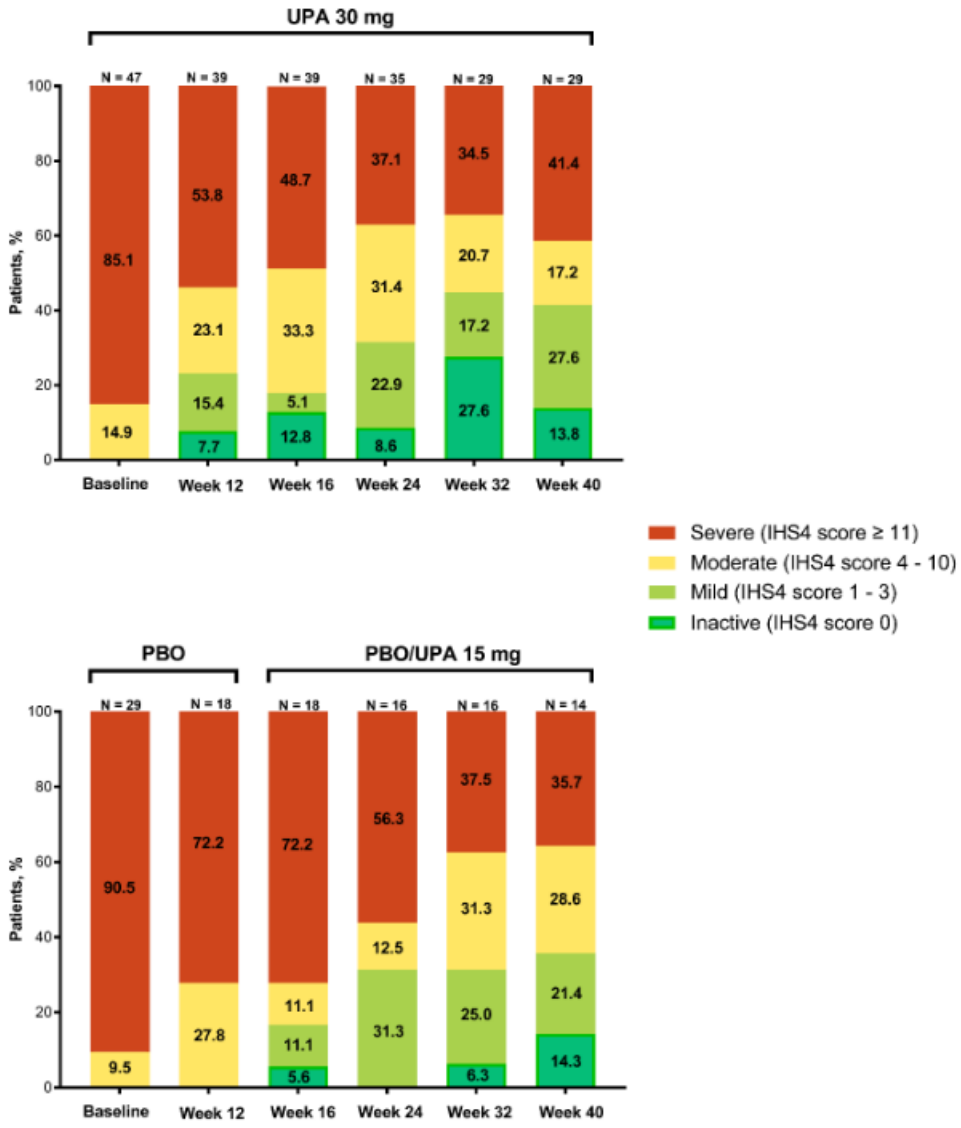
CI, confidence interval; IHS4-90, a ≥ 90% reduction in International Hidradenitis Suppurativa Score System; NRI, nonresponder imputation; OC, observed cases; PBO, placebo; UPA, upadacitinib. **Nominal; statistically significant at the 0.01 level.

Figure 3. Achievement of IHS4-100 Over Time (NRI and OC)



CI, confidence interval; IHS4-100, a 100% reduction in International Hidradenitis Suppurativa Score System; NRI, nonresponder imputation; OC, observed cases; PBO, placebo; UPA, upadacitinib. *Nominal; statistically significant at the 0.05 level.

Figure 4. Improvement in IHS4 Disease Severity from Baseline to Week 40 (OC)



IHS4, International Hidradenitis Suppurativa Score System; OC, observed cases; PBO, placebo; UPA, upadacitinib.

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Abstract N°: 6775

Addressing Melanin Dysregulation: Treatments for Post-Inflammatory Hyperpigmentation from Acne

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Introduction & Objectives:

Post-inflammatory hyperpigmentation (PIH) following acne disproportionately affects darker skin types, presenting therapeutic challenges due to overproduction and abnormal melanin deposition. This review assesses various treatment modalities for this condition.

Materials & Methods:

A comprehensive literature search was conducted using MEDLINE and EMBASE databases, focusing on randomized controlled trials and systematic reviews that address treatments for post-acne PIH, including topical agents, oral medications, and laser therapies.

Results:

Topical Treatments: Two systematic reviews, which included seven high-quality randomised controlled trials, provided evidence supporting the use of topical retinoids in treating PIH. The studies demonstrated efficacy with first-generation retinoids such as tretinoin and third-generation retinoids like tazarotene and adapalene. One study particularly highlighted the superior outcome of tazarotene 0.1% over adapalene 0.3% in reducing the severity and distribution of hyperpigmented lesions.

Topical Tyrosinase Inhibitors: Moderate evidence supports the use of thiamidol in treating PIH. One clinical study confirmed thiamidol's efficacy in reducing the visibility of hyperpigmentation as measured by the melanin index score, while another trial showed that four-times daily application of thiamidol led to more significant improvements compared to twice-daily application in terms of skin roughness and the modified Melanin Area and Severity Index (mMASI). Conversely, no studies supported the use of hydroquinone alone; it is more commonly used in combination therapies due to its side effects when used singly

Other Topical Agents: One randomised controlled study identified the treatment of PIH with niacinamide, which recorded a notable reduction in hyperpigmentation by assessing image analysis, visual assessment, and self-assessment. Another randomised controlled trial assessed the efficacy of topical salicylic acid peels, showing a moderate response in treating PIH according to physician's evaluation and patient's evaluation.

Oral Agents: The use of oral isotretinoin in treating PIH was only documented in one case report. No

studies were found on the use of oral tranexamic acid for PIH, though it has shown promise in several studies for treating melasma, a similar hyperpigmentation condition.

Laser Treatments: Systematic review encompassing twenty distinct studies evaluated the use of Q-switched Nd:YAG laser therapy in PIH, which showed promising results across various outcome measures. One study showed that fractional CO2 lasers notably improved dermoscopic features according to by Post-Acne Hyperpigmentation Index (PAHPI), Melanin Index (MI) and patient satisfaction scores significantly. Another study

revealed that picosecond lasers, despite having similar efficacy to other fractional lasers in treating atrophic acne scars, offer advantages in reducing risks of post-treatment PIH and pain.

Conclusion:

This review highlights the effectiveness of various treatments for PIH following acne. Topical retinoids like tretinoin and tazarotene are affirmed as primary therapies, with tyrosinase inhibitors such as thiamidol also showing promise. Laser therapies, including Q-switched Nd:YAG and fractional CO2 lasers, present advanced options with notable results.

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Abstract N°: 6813

Improvement in Draining Tunnels in Response to Upadacitinib Treatment in Moderate-to-Severe Hidradenitis Suppurativa (HS)

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Introduction & Objectives: The presence of draining tunnels in patients (pts) with moderate-to-severe hidradenitis suppurativa (HS) is strongly linked to poorer treatment response and a more aggressive disease progression. Therapeutic strategies that target cytokine-driven mechanisms are expected to provide reduction in draining tunnels and alleviate the overall impact of HS. By week 12, 38.3%, 21.3%, and 40.4% of pts treated with the selective JAK inhibitor upadacitinib (UPA 30 mg) achieved the stringent efficacy endpoints of HiSCR 75, HiSCR 90, and IHS4-55, the latter of which dynamically assesses inflammatory nodules, abscesses, and draining tunnels. To further explore the impact of UPA on draining tunnels, we assessed the absolute and percent change from baseline in draining tunnel counts over 40 weeks.

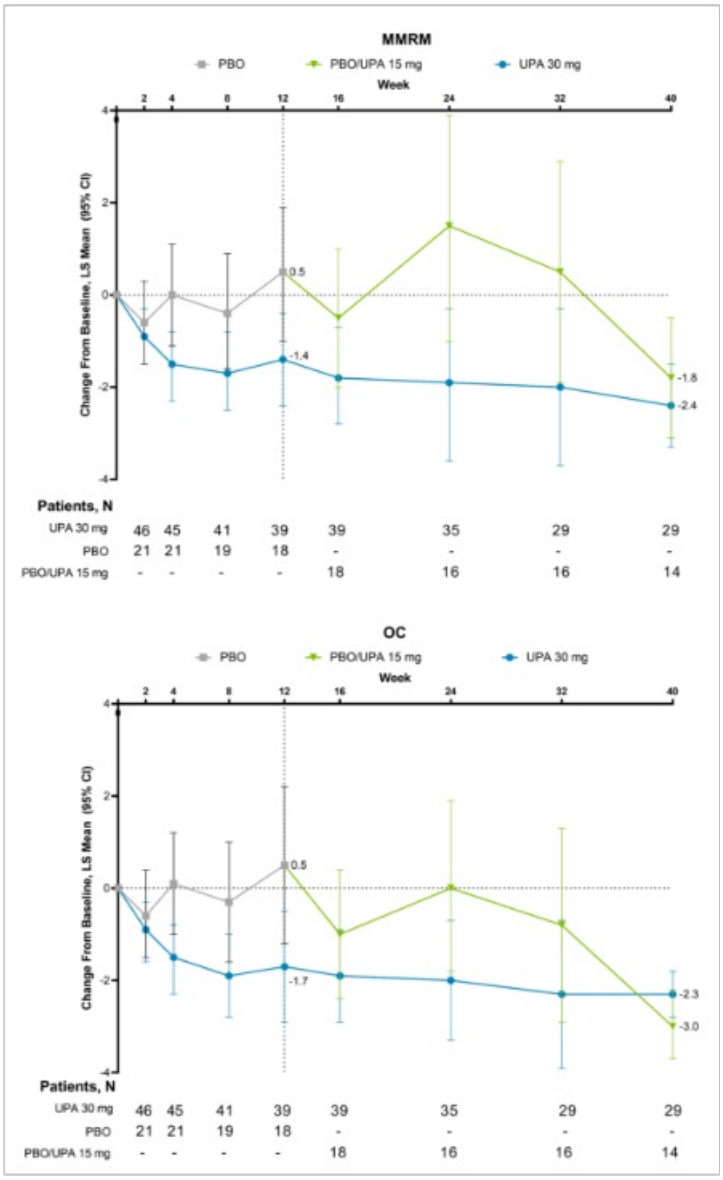
Materials & Methods: In the phase 2, multicenter, randomized, double-blinded, placebo-controlled study (NCT04430855), adult pts with moderate-to-severe HS were randomized (2:1) to once daily oral UPA 30 mg or placebo (PBO) for 12 weeks (period 1). After 12 weeks, pts receiving PBO switched to blinded UPA 15 mg, and pts receiving UPA 30 mg continued assigned treatment through week 48 (period 2). The primary endpoint was the achievement of ≥ 50% reduction from baseline in AN count with no increase in abscess or draining fistula count (HiSCR 50) at week 12 (UPA 30 mg vs historical PBO rate based on PIONEER I/II clinical trials). A sensitivity analysis for categorical endpoints used non-responder imputation (NRI) with no special data handling for missing data due to COVID-19 (NRI NC). Post hoc efficacy assessments through week 40 included change from baseline in draining tunnel count, and in pts who had at least 3 draining tunnels at baseline, the percent change from baseline in draining tunnel count. The analyses compared the UPA 30 mg and in study PBO/UPA 15 mg treatment groups. Statistical methods used to handle missing data included the mixed model for repeated measure (MMRM) and observed cases (OC).

Results: A total of 68 pts (77.9% female; mean [SD] age 36.6 [11.9] years; N = 47 for UPA 30 mg and N = 21 for PBO) were enrolled with mean (SD) draining tunnel counts of 3.4 (4.74) and 4.3 (6.17) for UPA 30 mg and in study PBO treatment groups. At week 12 (MMRM), pts receiving UPA 30 mg (N = 39) achieved a greater change from baseline in draining tunnel count (-1.4, LS-mean -1.9, nominal P = 0.02; Figure 1) vs PBO (+0.5, N = 18). At week 40 (MMRM), pts receiving UPA 30 mg (N = 29), continued to show a reduction from baseline (-2.4), and pts who switched to UPA 15 mg at week 12 achieved a change from baseline of -1.8 in draining tunnel count. At week 12

(MMRM), the draining tunnel percent change from baseline showed a greater reduction in pts receiving UPA 30 mg (-43.3%, nominal P = 0.029; Figure 2) vs. PBO (+1.56%). At week 40 (MMRM), the draining tunnel percent change from baseline for pts receiving UPA 30 mg (N = 11) was -64.5, and pts who had switched to UPA 15 mg achieved draining tunnel percent change from baseline of -72.7. The corresponding change from baseline at week 12 and week 40 were greater for the OC analyses (Figures 1-2).

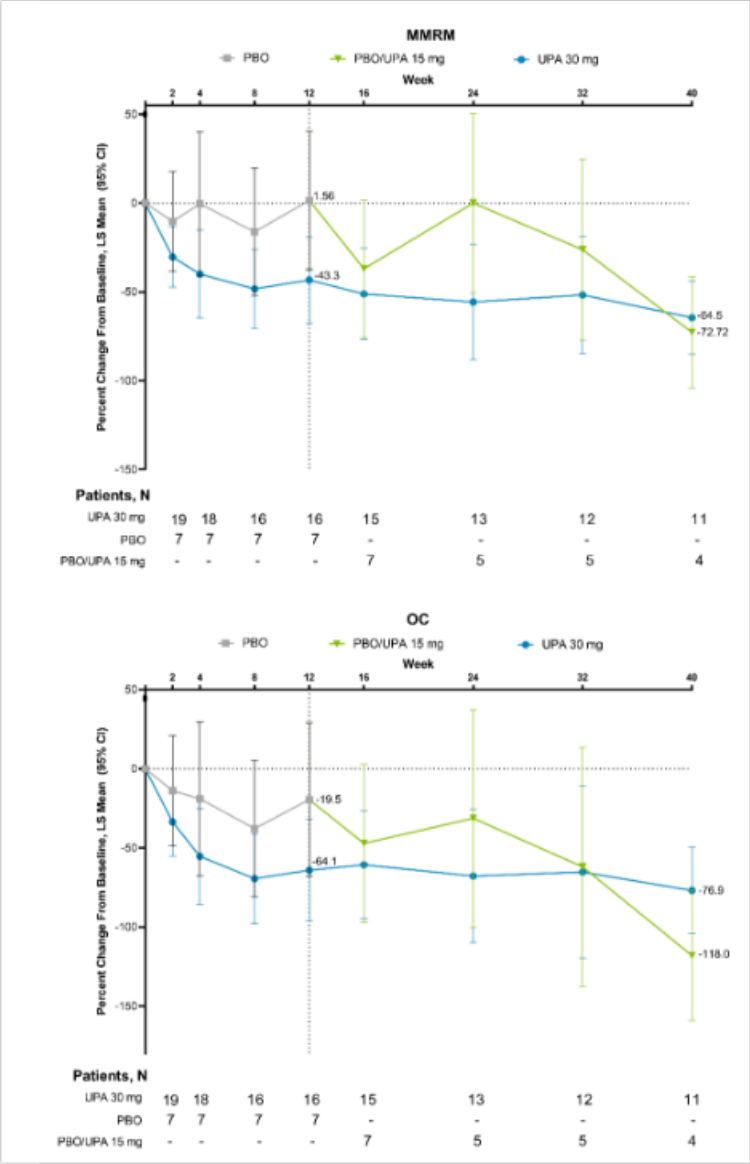
Conclusion: Pts treated with UPA achieved greater reduction in draining tunnel count compared to those treated with in study PBO by week 12. The change and percent change from baseline improved through week 40 for pts receiving UPA 30 mg and for those who switched from PBO to UPA 15 mg. In summary, UPA provides sustained improvement in draining tunnel count in pts with moderate-to-severe HS.

Figure 1. Change from Baseline in Draining Tunnel Count Over Time



CI, confidence interval; MMRM, mixed model for repeated measure; OC, observed cases; PBO, placebo; UPA, upadacitinib.

Figure 2. Percent Change from Baseline in Draining Tunnel Count Over Time*



CI, confidence interval; MMRM, mixed model for repeated measure; OC, observed cases; PBO, placebo; UPA, upadacitinib.
*In patients who had at least 3 draining tunnels at baseline.

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Abstract N°: 6822

the use of metformin in hidradenitis suppurativa: a systematic review of clinical evidence

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) is a chronic inflammatory skin condition of the hair follicles and apocrine glands. HS commonly affects skin folds such as the axillary, gluteal, and inguinal folds, and manifests with nodules, abscesses, sinus tracts, and scars. Recent studies have highlighted the burden HS has on the quality of life of patients, and a significant coexistence of life-impeding comorbidities such as type II diabetes, obesity, metabolic syndrome, and polycystic ovary syndrome. As such there has been a rise in interest in medications that can treat HS as well as present comorbid conditions. One such drug of interest is Metformin, an anti-diabetic agent with anti-androgenic and anti-inflammatory potential. It's use in HS has been documented in several studies. The aim of this study is to conduct a systematic review of clinical trials of Metformin use in HS.

Materials & Methods:

The study was conducted in accordance with the PRISMA guidelines. A search strategy was done and conducted on the following databases: PubMed, Medline, Google Scholar, and Embase. Duplicate articles were removed, and two independent reviewers assessed the articles for inclusion. All articles that met the inclusion criteria were included, and data extraction was conducted by two independent reviewers who in case of discrepancies consulted a third blinded reviewer.

Results:

121 patients across 3 retrospective and 1 prospective cohort studies were included. One of the studies was conducted exclusively on pediatric patients, while the others were not. In 3 of the studies, metformin was used as monotherapy whereas in one study it was used as adjunctive therapy. None of the included studies had a control group. A majority of patients included in the study were female patients who were overweight or obese and in their thirties. Two studies used a specific disease severity tool, one study used the Sartorius score and found a significant decrease, and another study used the PGA score and found no significant difference at the end of the treatment period. Two studies used the DLQI to assess the quality of life and both studies found a significant decrease in the DLQI score at completion of treatment. One study found no significant difference in CRP levels at the beginning and at the end of treatment. The remaining studies used descriptive terms to assess response to treatment and considered patients to have responded to metformin when they had less flares, less pain, and less suppuration. Metformin was well-tolerated with the most common adverse event noted being GI disturbances. Risk of bias assessment is presented in table 2, but one study was not included in the assessment because it was an abstract rather than a full text.

Conclusion:

Overall, the studies included show positive results for the use of Metformin in HS. However, the sample size of 121 patients is too little, and alongside the fact that none of the included studies are Randomized Controlled Trials (RCTs); highlights the need for larger and better designed trials before metformin can be considered a mainstream therapy for HS. Results show that the medication tends to produce more promising results in patients who are overweight and obese, however the lack of subgroup analysis in these studies weakens these conclusions.

Table 1

	Study Design	Sample Size	Monotherapy; and dose	Control Group	Treatment Duration	Outcome
Verdolini et al.	Prospective Cohort	25	Yes; 500 mg qd for a week, 500 mg BID for a week, then 500mg TID	Not present	24 weeks	Significant decrease in both Sartorius Score and DLQI
Jennings et al	Retrospective Cohort	53	Yes; Mean daily dose of 1.5 g/day	Not Present	Mean of 11.3 months	19% had a complete response from the Hurley II group. 58% and 55% of Hurley II and Hurley III had partial response. 68% had a subjective clinical response. No significant change in CRP levels
Moussa et al.	Retrospective Cohort	16 pediatric patients	No; not mentioned	Not present	Not mentioned	5 patients improved, 5 didn't, 6 lost to follow up, and 1 stopped treatment due to no improvement
Segura Palacios et al.	Retrospective Cohort	27	Yes, between 1.7-2.55 g/day	Not Present	24 weeks	Significant reduction in DLQI score but no significant difference in PGA score

Table 2

	Selection Bias	Confounding Bias	Reporting Bias	Information Bias
Verdolini et al.	Low	High	Low	Low
Jennings et al	High	Low	Unclear	Low
Moussa et al.	High	High	Unclear	Low

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Abstract N°: 6853

Bimekizumab: Network meta-analysis to establish comparative efficacy in moderate-to-severe hidradenitis suppurativa patients

Haley Naik*[1], Vincent Piguet[2], Brian Kirby[3], Leah Davis[4], Michael Frank Mørup[5], Vanessa Taieb[6], Sandeep Kiri[7], Abby Paine[8], Isobel Munro[8], Tzellos Thrasyvoulos[9, 10]

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Introduction & Objectives:

Bimekizumab (BKZ), a selective inhibitor of interleukin (IL)17F in addition to IL-17A, has demonstrated efficacy and safety in two Phase 3 trials BE-HEARD I and II for the treatment of moderate-to-severe hidradenitis suppurativa (HS), a chronic, recurrent inflammatory skin disease. In the absence of head-to-head trials, a systematic literature review (SLR) and network meta-analysis (NMA) have been conducted to establish the short-term efficacy of BKZ 320mg every 2 weeks (Q2W) compared with other approved biologic therapies for HS at Week 12–16.

Materials & Methods:

An SLR was conducted to identify phase 2 and phase 3 randomised controlled trials (RCT) with biologics up to October 2023 for inclusion in a Bayesian NMA. The most comprehensive network comprised all patients enrolled in the RCTs, including biologic naïve and experienced patients. Efficacy outcomes of interest at Week 12–16 were improvement in HS Clinical Response with ≥50%/≥75%/≥90%/100% reduction from baseline in abscesses and inflammatory nodule count, with no increase of abscesses or draining tunnel count (HiSCR50/75/90/100), and improvement from baseline in International Hidradenitis Suppurativa Severity Score System of ≥55% (IHS4-55). Due to small event numbers, quantitative analyses of safety and tolerability were not performed. Both fixed- and random-effect models were explored, and included placebo baseline risk adjustment, where sufficient data allowed. Surface under the cumulative ranking curve (SUCRA) values were used to rank each treatment.

Nine RCTs reported NMA outcomes of interest for BKZ at all doses (HS0001, BE HEARD I, BE HEARD II), and approved doses of secukinumab (SEC) (SUNSHINE, SUNRISE) and adalimumab (ADA) (NCT00918255, PIONEER I, PIONEER II, SHARPS).

BKZ trial data were re-analysed to match intercurrent event handling and imputation methods in the SEC trials, based on modified non-responder imputation (mNRI) with rescue antibiotics for HS, and discontinuation due to adverse events or lack of efficacy as intercurrent events (HS-ABX). Data were only reported using NRI in ADA RCTs.

Results:

The best fit model for HiSCR responder outcomes was the fixed-effect placebo-adjusted, and for IHS4-55, the fixed-effect model. BKZ 320mg Q2W was ranked first for all efficacy outcomes analysed (SUCRA >85%).

Compared with SEC 300mg Q2W and Q4W doses, BKZ 320mg Q2W offered significantly improved patient responses for all HiSCR outcomes and IHS4-55 (**Table**). BKZ 320mg Q2W compared with ADA 40mg QW also offered significantly improved outcomes for HiSCR75/90 and a numerical advantage for HiSCR50/100 and IHS4-55.

Conclusion:

BKZ 320mg Q2W achieved significantly higher response rates for all HiSCR outcomes and IHS4-55 compared with SEC 300mg Q2W and Q4W, and for HiSCR75/90 compared with ADA 40mg QW. BKZ 320mg Q2W ranked first for all efficacy outcomes analysed and the analyses suggest BKZ is a new and important therapeutic option for patients with moderate-to-severe HS.

Table. Summary of NMA binary efficacy outcomes for BKZ Q2W at Weeks 12–16: OR (95% CrI)† [SUCRA]

BKZ Q2W vs.		HiSCR50 (mNRI HS-ABX)	HiSCR75 (mNRI HS-ABX)	HiSCR90 (mNRI HS-ABX)	HiSCR100 (mNRI HS-ABX)	IHS4-55 (NRI)
PBO		3.18 (2.34, 4.24) [0.0%]	4.07 (3.14, 5.73) [0.0%]	4.28 (3.46, 5.29) [0.0%]	4.40 (3.35, 5.79) [2.0%]	3.14 (2.18, 4.55) [0.0%]
IL-17 inhibitor‡	BKZ Q4W	1.04 (0.79, 1.38) [84.1%]	1.29 (0.96, 1.74) [76.6%]	1.07 (0.76, 1.51) [85.7%]	1.02 (0.71, 1.50) [82.7%]	1.05 (0.79, 1.40) [78.7%]
	SEC Q2W§	1.70 (1.13, 2.43) [32.4%]	2.02 (1.39, 3.16) [29.0%]	1.87 (1.28, 2.74) [29.5%]	1.77 (1.13, 2.85) [41.3%]	1.96 (1.22, 3.17) [28.7%]
	SEC Q4W	1.69 (1.12, 2.42) [33.0%]	1.85 (1.27, 2.86) [39.7%]	1.62 (1.13, 2.35) [44.3%]	1.88 (1.19, 3.07) [36.5%]	1.91 (1.18, 3.06) [32.0%]
TNFα inhibitor¶	ADA QW	1.31 (0.87, 1.91) [60.2%]	1.60 (1.10, 2.55) [55.9%]	1.56 (1.09, 2.27) [47.8%]	1.57 (0.41, 8.23) [52.0%]	1.12 (0.70, 1.78) [74.2%]

Key: Significant difference in favor of BKZ Q2W; BKZ Q2W ranked higher in >60% of simulations, but no significant difference between treatments; BKZ Q2W and comparator have similar efficacy

†OR = 1 indicates no difference in treatment effect; ‡Outcome data reported for mNRI HS-ABX / NRI estimand for HiSCR and IHS4-55 response, respectively, at 16 weeks; ¶Outcome data reported for NRI estimand at 12 weeks; §Dose only recommended if a patient does not adequately respond to SEC Q4W.

ABX: antibiotics; ADA: adalimumab 40 mg; BKZ: bimekizumab 320 mg; CrI: credible interval; HiSCR: Hidradenitis Suppurativa Clinical Response; IHS4: International Hidradenitis Suppurativa Severity Score System; IL: interleukin; mNRI: modified non-responder imputation; NMA: network meta-analysis; NRI: non-responder imputation; OR: odds ratio; PBO: placebo; QW: every week; Q2/4W: every 2 weeks/every 4 weeks; Ref: reference; SEC: secukinumab 300 mg; SUCRA: surface under the cumulative ranking curve; TNFα: tumor necrosis factor alpha.

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Abstract N°: 6914

Angiotensin-Converting Enzyme Insertion/Deletion Gene Polymorphism in patients with hidradenitis suppurativa

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory disease characterized mainly by recurrent skin abscesses, nodules leading to tunnels, and scarring. Evidence suggests that HS has a complex multifactorial pathogenesis with genetic and environmental components.

Angiotensin-converting enzyme (ACE) is the regulatory component of the renin-angiotensin system (RAS) that converts angiotensin I to active angiotensin II while inactivating bradykinin. ACE is an important molecule in the control of the vascular endothelium and contributes to the flow of inflammatory mediators, and became popular especially after COVID pandemic. The polymorphism of ACE is defined by the presence (I) or absence (D) of a 287 bp long repetitive Alu sequence in intron 16 that determines the activity of ACE.

The ACE I/D polymorphism has not been investigated in patients with HS. The present study aimed to investigate the ACE polymorphism in HS patients in the Turkish Caucasian population.

Materials & Methods:

Forty-nine patients with clinically and/or pathologically confirmed HS and 70 age- and gender-matched healthy volunteers without inflammatory skin or systemic diseases were included. The affected body parts and the severity of the disease were recorded. PCR was performed from each DNA sample with ACE gene I/D polymorphism genotype alleles specific primers.

Results:

Forty-nine patients with HS (12 female, 37 male) and 70 healthy controls (17 female, 53 male) were enrolled in this study. II genotype and I allele seem to be significantly higher in the control group (p=0.013, p=0.041 respectively). In addition, not having the D allele was significantly higher in the control group (p=0.018). There was no significant difference of ACE Insertion/Deletion polymorphism genotypes between subgroups according to the severity of the disease among the patients and also according to the family history (p=0.837, p=0.923, respectively). Besides that, II genotype was significantly higher in female patients than male patients (p=0.006).

In logistic regression analyses it was determined that having ID allele has 3.958 times higher risk, wherease having DD allele 6.674 times higher risk to develop HS. Furthermore, smoking and alcohol intake habits seemed to affect significantly to develop HS as well.

Conclusion:

Regarding the relation between ACE gene I/D polymorphism and HS susceptibility, our results showed that having I allele and/or II genotype seem to be protective for the development of HS. Furthermore, we determined that females had more II genotypes, and there were no correlation between ACE polymorphism and both positive family history and/or disease severity.

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Abstract N°: 6978

Depth of the Efficacy Response to Lutikizumab Treatment in Moderate-to-Severe Hidradenitis Suppurativa (HS)

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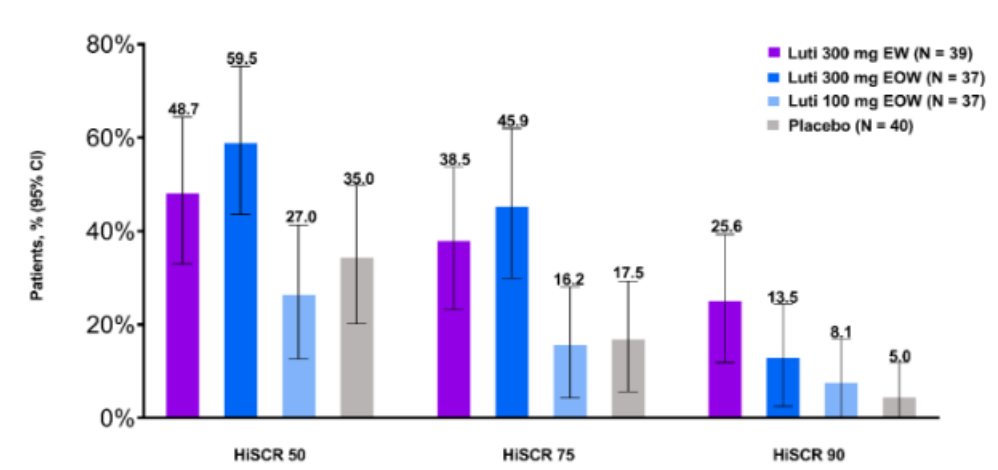
Introduction & Objectives: Hidradenitis suppurativa (HS) is an unpredictable progressive disease. Treatments that target the underlying cytokine-driven mechanisms of the disease are expected to have higher clinical efficacy benchmarks to address the unmet needs of patients. Lutikizumab (luti), a dual-variable-domain interleukin (IL) 1α/1β antagonist, has shown greater response rates over placebo in the achievement of HiSCR 50, HiSCR 75, and pain NRS 30 at week 16 in a phase 2b study in patients with hard-to-treat moderate-to-severe HS, who have failed anti-TNF therapy. Most patients (70.6%) had severe baseline Hurley Stage 3 disease. The objective of this analysis was to assess the depth of response of lutikizumab compared to placebo, evaluated by achievement of HiSCR 90 and the International Hidradenitis Suppurativa Severity Score System (IHS4) endpoints, IHS4-55/75/90.

Materials & Methods: In this phase 2b multicenter, randomized, double-blind, placebo-controlled trial (NCT05139602) Main Study, adult patients with a clinical diagnosis of HS, who failed anti-TNF treatment, were randomized at baseline in a 1:1:1:1 ratio to one of 4 treatment groups, each with a planned N = 40: lutikizumab 300 mg every week (luti 300 mg EW); lutikizumab 300 mg every other week (luti 300 mg EOW); lutikizumab 100 mg EOW (luti 100 mg EOW); placebo EW. The primary efficacy objective of the main study was to assess the achievement of HiSCR 50 after 16 weeks of treatment with each lutikizumab group compared to placebo. Additional efficacy assessments included achievement of HiSCR 75/90 and IHS4-55/75/90 at week 16. Statistical approaches included non-responder imputation incorporating multiple imputation (NRI-MI) to handle missing data for HiSCR 50/75/90, IHS4-55, and NRI for IHS4-75/90.

Results: A total of 153 patients (61.4% female; mean [SD] age 40.5 [12.4] years) were randomized across 54 sites, with most patients (70.6%) diagnosed with severe baseline Hurley Stage 3 disease. At week 16, 25.6%, 13.5%, and 8.1% of patients receiving luti 300 mg EW, 300 mg EOW and 100 mg EOW, respectively, achieved HiSCR 90, compared to 5.0% of patients receiving placebo (Figure 1). Furthermore, at week 16, IHS4-55, IHS4-75, and IHS4-90 was achieved by 48.7%, 28.2%, and 23.1% of patients receiving luti 300 mg EW, by 62.2%, 40.5%, and 21.6% of patients receiving luti 300 mg EOW, and by 27.0%, 13.5%, and 5.4% of patients receiving luti 100 mg EOW, compared to 32.5%, 20.0%, and 7.5% of patients receiving placebo, respectively (Figure 2). The IHS4-55/75/90 response rates were consistent with those reported for HiSCR 50/75/90.

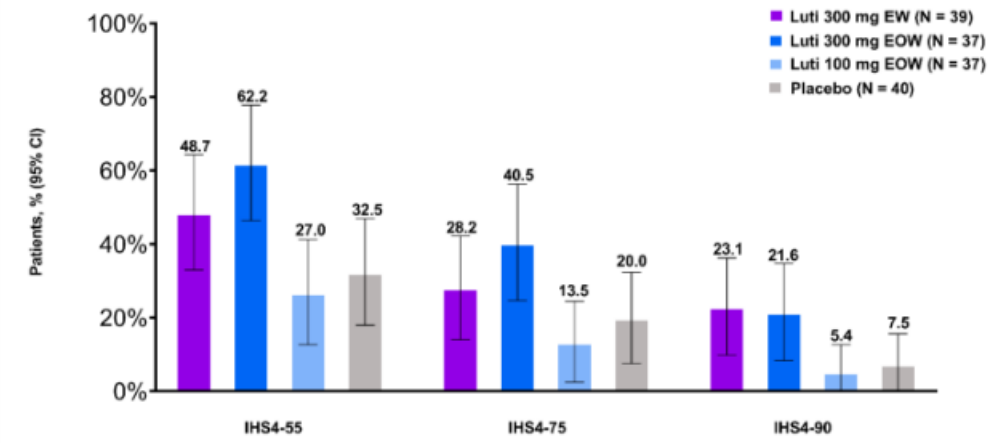
Conclusion: In a hard-to-treat patient population, treatment with luti 300 mg EW and luti 300 mg EOW provides efficacy responses at deep levels at week 16 compared to placebo, as demonstrated by HiSCR 75/90 response rates and IHS4-55/75/90 response rates. These results support further investigation of the clinical efficacy of lutikizumab as a potential treatment option for patients with moderate-to-severe HS.

Figure 1. Achievement of HiSCR 50/75/90 at Week 16 (NRI-MI)



EOW, every other week; EW, every week; HiSCR, hidradenitis suppurativa clinical response; Luti, lutikizumab; NRI-MI, non-responder imputation incorporating multiple imputation.
NRI-MI is used to handle missing data due to COVID-19.
HiSCR 50/75/90 are defined as at least a 50%, 75%, or 90% reduction from baseline, respectively, in the total abscess and inflammatory nodule (AN) count, with no increase in abscess count and no increase in draining fistula-count relative to baseline.

Figure 2. Achievement of IHS4-55/75/90* at Week 16



EOW, every other week; EW, every week; IHS4, International Hidradenitis Suppurativa Severity Score System; Luti, lutikizumab; NRI, non-responder imputation.
IHS4 55/75/90 are defined as at least a 55%, 75%, or 90% reduction from baseline in IHS4, respectively.
*NRI-MI is used to handle missing data for IHS4-55, and NRI is used for IHS4-75/90.

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Abstract N°: 6982

Unlocking the patient perspective: Exploring acne-induced hyperpigmentation in the Phase 4 LEAP study

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Introduction & Objectives:

The Phase 4 LEAP clinical trial aimed to evaluate the efficacy of trifarotene for the treatment of acne lesions and acne-induced hyperpigmentation (AIH) in patients of all Fitzpatrick skin phototypes. (1) Here, we present results of a cross-sectional, qualitative, blinded exit interview sub-study that explored patients' experiences with AIH, its impact on their quality of life, patients' expectations of and satisfaction with trifarotene treatment, and their opinions on the skincare regimen provided during the study.

Materials & Methods:

The sub-study was conducted at nine clinical sites in the U.S., where 30 patients from the LEAP study who had completed their Week 24 visit were recruited. Blinded telephone interviews were conducted in English during Weeks 24–26 by three experienced qualitative researchers using a semi-structured interview guide. With patient permission, the interviews were recorded for monitoring purposes and subsequently transcribed for further content analysis using ATLAS.ti©.

Results:

Patient demographics, clinical characteristics, and experiences with AIH at baseline are summarized in Table 1. At Week 24, a higher proportion of patients in the trifarotene group reported improvements in AIH from baseline compared with patients in the vehicle group (100% vs 83.3%). In the vehicle group, 11.1% and 5.6% believed their AIH stayed the same or worsened, respectively. The average self-reported AIH severity (Figure 1) was lower after treatment with trifarotene than with vehicle. Of the patients who reported changes in emotional functioning (93.3%), all patients treated with trifarotene described clinically meaningful improvements, compared with 82.4% in the vehicle group. Patients highlighted that their most liked attributes of trifarotene were its ease of use (75.0%), administration (66.7%), and efficacy (58.3%). On average, treatment satisfaction (Figure 2) was higher in the trifarotene group compared with the vehicle group (8.6 vs 7.6; assessed on an 11-point scale [0–10]). Patients also noted the provided skincare regimen (cleansers, moisturizers, and photoprotection) helped improve signs of skin sensitivity.

Conclusion:

Although the LEAP study clinical endpoints did not reach statistical significance at Week 24, the study provided valuable insight into the effect of trifarotene on AIH. These exit interviews offer a deeper understanding of the burden of AIH, perceived changes, and treatment satisfaction from the patient's perspective. The results provide evidence for trifarotene as a potential treatment option to help improve AIH and its associated impact. Patient feedback also suggests that vehicle cream with skincare products improved patients' perception of their AIH. Although it is important to acknowledge the potential for recall bias as interviews were conducted after the 24-

week trial concluded, these results can be used as supportive data to contextualize the findings from the clinical trial.

Reference

1. Alexis A, *et al.* Importance of treating acne sequelae in skin of color: 6-month phase IV study of trifarotene with an appropriate skincare routine including UV protection in acne-induced post-inflammatory hyperpigmentation. *Int J Dermatol* 2024; online ahead of print.

	Total (N=30)
Patient demographics	
Age, mean (SD)	24.8 (4.7)
Sex, n (%)	
Female	6 (20.0%)
Male	24 (80.0%)
Race, n (%)	
American Indian or Alaskan Native	1 (3.3%)
White	9 (30.0%)
Black or African American	15 (50.0%)
Asian	4 (13.3%)
Native Hawaiian or other Pacific Islander	0 (0.0%)
Other	1 (3.3%)
Ethnicity, n (%)	
Hispanic or Latino	8 (26.7%)
Not Hispanic or Latino	22 (73.3%)
Clinical characteristics	
Fitzpatrick skin phototype, n (%)	
Type I	0 (0.0%)
Type II	4 (13.3%)
Type III	4 (13.3%)
Type IV	6 (20.0%)
Type V	9 (30.0%)
Type VI	7 (23.3%)
Treatment assignment, n (%)	
Trifarotene	12 (40.0%)
Vehicle cream	18 (60.0%)
Experiences with AIH	
Terms used to describe AIH, n (%)	
Dark spots	13 (43.3%)
Hyperpigmentation	9 (30.0%)
Acne scars	6 (20.0%)
Family history of acne and/or AIH, n (%)	18/28 (64.3%)
Location of AIH, n (%)	
Cheeks	17 (56.7%)
Chin	8 (26.7%)
Forehead	7 (23.3%)
AIH triggers, n (%)	
Sun exposure	9 (30.0%)
Make-up/skincare products	9 (30.0%)
Diet	7 (23.3%)

	Total (N=30)
Stress	6 (20.0%)
Impact of AIH, n (%)	
Emotional functioning	28 (93.3%)
Personal care/hygiene	24 (80.0%)
Social activities/relationships with others	21/29 (72.4%)
Financial burden	12 (40.0%)
Impact on daily activities	4 (13.3%)
Impact on sleep	1 (3.3%)
Previous treatments, n (%)	
OTC products and home remedies	26 (86.7%)
Prescription treatments	7 (23.3%)
Corrective procedures	3 (10.0%)

OTC, over-the-counter; AIH, acne-induced hyperpigmentation; SD, standard deviation.

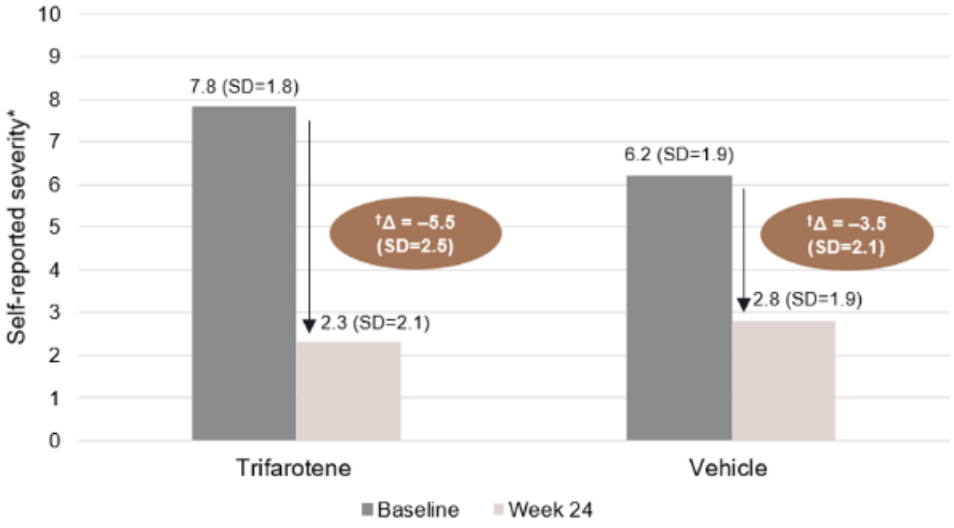

Figure 1. Perceived changes in self-reported AIH severity by treatment arm.

*Interview question: On a scale of 0 to 10, where 0=not severe at all and 10=extremely severe, how bad is the hyperpigmentation (or term used by participant) on your face now?

†Reduction from baseline was calculated using the average difference between severity ratings at Week 24 and baseline for each treatment arm. A higher score indicates a greater reduction in AIH severity.

AIH, acne-induced hyperpigmentation; SD, standard deviation.

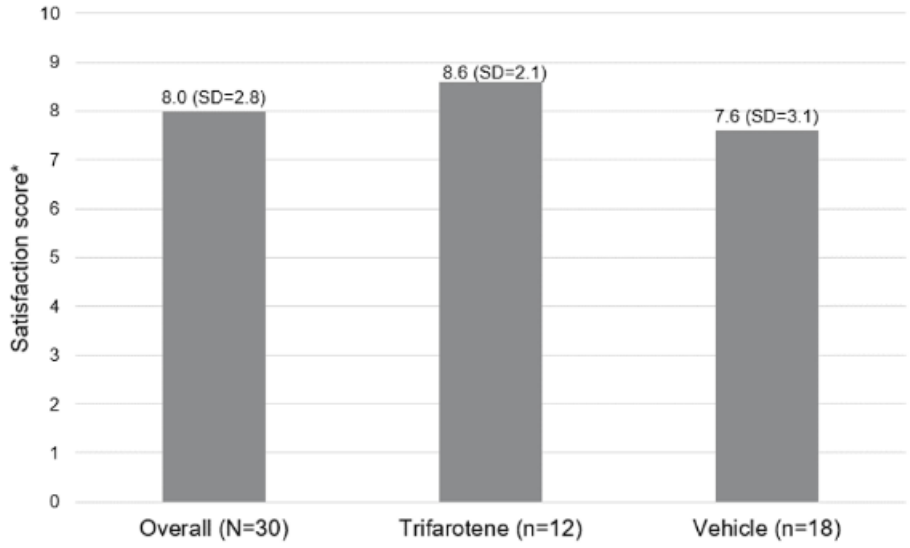

Figure 2. Overall treatment satisfaction by treatment arm.

*Interview question: Overall, please describe how satisfied you were with your treatment on a scale from 0 to 10, where 0=not satisfied at all and 10=extremely satisfied.

SD, standard deviation.

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Abstract N°: 7051

Management Of Resistant Severe Nodulocystic Acne With Oral Dapsone Following Unsuccessful Isotretinoin Therapy: A Case Report

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[1]chu Ibn Rochd Casablanca , dermatology

Introduction & Objectives:

Nodulocystic acne or Acne conglobata, represents a severe variant of acne vulgaris characterized by chronic inflammation of the pilo-sebaceous unit, often leading to significant physical and psychological distress. While oral isotretinoin is widely recognized as the gold standard treatment, instances of treatment resistance necessitate exploration of alternative therapeutic options. Oral dapsone emerges as a promising adjunctive therapy in the management of nodulokystic acne, particularly in cases refractory to conventional isotrtinoin therapy.

Herein, we report a case of a patient with severe nodulocystic acne not responding to isotretinoin who was successfully treated with oral dapsone.

Case description:

A 19-year-old male with a ten-year history of psoriasis vulgaris managed with topical corticosteroid, who presented to our dermatology department severe nodulocystic acne involving the face. Despite six months of escalating doses of isotrtinoin up to 60 mg daily, the patient experienced worsening and extensive acne lesions, coupled with adverse effects such as elevated liver enzymes and depressive symptoms, necessitating discontinuation of isotretinoin. Physical examination revealed nodular cystic acne lesions on the face, shoulders and anterior side of the trunck. Notably, the patient exhibited no signs of associated conditions such as synovitis, hyperostosis, osteitis, suppurative hidradenitis, or pyoderma gangrenous. Oral dapsone therapy 100mg daily, in conjunction with benzoyl peroxide 2.5%, was initiated after confirming normal glucose-6-phosphate dehydrogenase enzyme levels. Over six-month treatment period, marked improvement in acne was observed, achieving significant disease control.

Conclusion:

Acne, affecting the majority of adolescents, imposes substantial financial and psychosocial burdens, particularly with increasing severity. Severe manifestations like nodulocystic acne demand systemic interventions, including oral antibiotics, hormonal therapies, and isotretinoin. Isotretinoin, while highly effective, is hindered by concerns over serious systemic side effects, prompting exploration of alternatives.

Dapsone, primarily used in leprosy, offers a dual mechanism of action with both antimicrobial and anti-inflammatory properties. While topical dapsone gains FDA approval for acne, limited data exist on oral dapsone's efficacy due to concerns like hemolytic anemia. Nonetheless, emerging evidence suggests its potential as an alternative therapy in refractory cases, contingent upon vigilant monitoring to mitigate systemic risks. Comparative studies highlight isotretinoin's superiority, underscoring the need for cautious consideration of oral dapsone as a secondary option in severe acne management.

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Abstract N°: 7062

Remodulation of skin microbiota balance with a topical biotechnological phytocomplex: a Shotgun Metagenomic Sequencing Study

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Introduction & Objectives:

Dysbiosis of skin microbiota has been identified as one key factor in the development of acne.Skin microbiota studies such as 16S rRNA gene sequencing or shotgun metagenomics,provide deeper understanding of functional attributes of the microbiota and can reveal the composition and diversity of the bacterial community.However,some limitations as collection and extraction methods and biases derived from sample preparation and analysis have notably impacted the outcomes and interpretation of them.A previous 16S rRNA study showed an increase in alpha and beta diversity with a decrease in *Cutibacterium acnes* after the application of a topical biotechnological phytocomplex on cutaneous microbiota in patients with mild-moderate acne.Our study was designed to investigate the cutaneous microbiota through 16S rRNA gene and shotgun metagenomic sequencing,and evaluate the clinical effects of the gel.

Materials & Methods:

An open,prospective,one arm,clinical study in 44 subjects from 12 to 35 years old with mild-moderate acne was carried out.All participants applied a facial gel containing *Camellia sinensis* callus lysate,*Morinda citrifolia* callus lysate,niacinamide and succinic acid twice daily for eight consecutive weeks.Genomic DNA was extracted from 40 facial skin samples and sequenced using NovaSeq (2x150bp) with a coverage of 60Mb.Quality control steps were performed, including trimming of raw demultiplexed reads,filtering out sequences belonging to humans, and removing reads shorter than 70bp from the dataset.Various pipelines were executed to achieve different objectives using non-human reads as input.

Results:

Taxonomic assignments were conducted for bacteria,viruses,and eukaryotic domains and a functional profile analysis was also undertaken.Additionally, *Cutibacterium* metagenome-assembled genomes (MAGs) were obtained.The quality of reads met the expected standards for Illumina sequencing,all reads average was higher than Q30.Although the proportion of human reads varied among samples, the filtered reads obtained after the quality control step were sufficient for conducting most of the analyses.The whole microbiome of human facial skin was characterized observing genus as *Cutibacterium,Corynebacterium* and *Staphylococcus* as the most abundant.The functional profile of the microbiome was analyzed for molecular pathways and enzyme functions levels. *Cutibacterium* reads were partially reconstructed into MAGs to reach strain level.

Overall,the clinical study demonstrated that 61.36% of patients improved by at least one point in the IGA score at day 56,the study 16S rRNA showed an increase in alpha and beta diversity with a decrease in *Cutibacterium acnes* relative abundance and the study shotgun metagenomic sequencing is ongoing.

Conclusion:

Shotgun metagenomics allows for the comprehensive sequencing of all DNA within a sample, facilitating the exploration of bacterial, viral,and fungal community structures at highly detailed taxonomic levels, such as species and strains.Additionally,it opens opportunities for gene and functional investigations.The relatively high proportion of host DNA in skin samples can difficult a higher sequencing depth although it was achieved in this study.Further steps will allow the obtention of results with species- and strain-level resolution and the confirmation at a deeper level of the effect of this new facial gel in the rebalance of skin microbiota in acne patients.

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Abstract N°: 7068

Evaluating the risk of malignancy in acne patients treated with benzoyl peroxide: a multi-center, population-based cohort study.

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Introduction & Objectives:

A recent report has raised concerns that prescription and over-the-counter BPO products have the potential to thermally decompose into benzene, a known carcinogen, particularly when exposed to elevated temperatures (37°C-70°C). Given the importance of BPO as a treatment for acne, we utilized the TriNetX US Collaborative Network (63 healthcare organizations) to evaluate whether topical BPO use for acne is associated with the development of hematologic or internal malignancies.

Materials & Methods:

We identified acne patients treated with topical BPO ages 12-40 using a ICD-10 codes validated approach. We excluded both hidradenitis suppurativa (HS) and rosacea from the exposure and control group, as BPO is utilized differently in HS patients, and there is often misclassification between acne and rosacea. We designated our control comparator cohort as patients ages 12-40 diagnosed with either nevus or seborrheic keratosis (SK) with no exposure to BPO or any diagnosis of acne, hidradenitis suppurativa, or rosacea. The index event date was defined as the first prescription for topical BPO and nevus/SK in our treatment and control cohorts, respectively. Cohorts were 1:1 propensity score-matched using a greedy nearest neighbor matching algorithm to account for age at index date, baseline demographics, and potentially confounding comorbidities (Table 1). 10-year Cox Proportional-Hazards Models with 95% confidence intervals were assessed to evaluate the risk of incident lymphoma, leukemia, any hematologic malignancy, and internal malignancies. We also conducted a sensitivity analysis using a comparator cohort diagnosed with viral warts to capture a younger population and improve sample size.

Results:

Compared to patients diagnosed with nevus or SKs, acne patients treated with BPO had no significant difference in risk of lymphoma (hazard ratio (HR) [95% CI] = 1.00 [0.68, 1.47]), leukemia (HR [95% CI] = 0.91 [0.51, 1.65]), any lymphoma or leukemia (HR [95% CI] = 1.04 [0.74, 1.45]), and internal malignancies (HR [95% CI] = 0.93 [0.79, 1.08]). Sensitivity analysis demonstrated similar results, supporting no increased risk of malignancy development in those treated with topical BPO (Table 2).

Conclusion:

Our findings suggest that BPO exposure in patients with acne is not associated with an increased risk of malignancy. The decreased risk of malignancy compared to patients with viral warts might reflect confounding due to underlying immunosuppression, rather than a protective effect of BPO. Although further studies are needed to replicate these findings and for generalizability, our study provides reassuring evidence that most BPO products are likely safe when stored appropriately in ambient temperatures and used within a reasonable period.

Table 1. "Baseline demographic characteristics of acne patients treated with benzoyl peroxide (BPO) after propensity score matching."

Characteristic	Acne treated with BPO (n = 27,448)	Nevus/SK (control) (n = 27,448)	*p-value*	*Std. mean difference*	Acne treated with BPO (n = 63,607)	Viral Warts (control) (n = 63,607)	*p-value*	*Std. mean difference*
Age at index, mean (SD), y	25.46 (7.82)	25.32 (7.71)	0.04	0.02	20.82 (7.31)	20.91 (7.45)	0.02	0.01
Sex								
Female	18943 (69.01%)	17944 (65.38%)	<0.001	0.08	37365 (58.74%)	38863 (61.10%)	<0.001	0.05
Male	8493 (30.94%)	9491 (34.58%)	<0.001	0.08	26229 (41.24%)	24735 (38.89%)	<0.001	0.05
Ethnicity								
Hispanic or Latino	1739 (6.34%)	1721 (6.27%)	0.75	0.003	6560 (10.31%0	6109 (9.60%)	2.41	0.02
Race								
White	20058 (73.08%)	20232 (73.71%)	0.09	0.01	39829 (62.62%)	40391 (63.50%)	0.001	0.02
Black or African American	1405 (5.12%)	1323 (4.82%)	0.11	0.01	6199 (9.75%)	5802 (9.12%)	<0.001	0.02
Asian	831 (3.03%)	797 (2.90%)	0.39	0.01	2022 (3.18%)	1877 (2.95%)	0.02	0.01
Comorbidities								
Overweight and obesity	849 (3.09%)	834 (3.04%)	0.71	0.003	1858 (2.92%)	1723 (2.71%)	0.02	0.01
Essential (primary) hypertension	581 (2.12%)	568 (2.07%)	0.70	0.003	926 (1.46%)	880 (1.38%)	0.28	0.01
Nicotine dependence	612 (2.23%)	561 (2.04%)	0.13	0.01	855 (1.34%)	1001 (1.57%)	<0.001	0.02
Type 2 diabetes mellitus	198 (0.72%)	196 (0.71%)	0.92	0.001	341 (0.54%)	326 (0.51%)	0.56	0.003
Type 1 diabetes mellitus	112 (0.41%)	111 (0.40%)	0.95	0.001	282 (0.44%)	320 (0.50%)	0.12	0.01
Alcohol related disorders	125 (0.46%)	116 (0.42%)	0.56	0.005	214 (0.34%)	240 (0.38%)	0.22	0.01
Family history of primary malignant neoplasm	122 (0.44%)	126 (0.46%)	0.80	0.002	152 (0.24%)	141 (0.22%)	0.52	0.004
Fibrosis and cirrhosis of liver	10 (0.04%)	12 (0.04%)	0.67	0.004	18 (0.03%)	12 (0.02%)	0.27	0.01

Table 2. "Risk of malignancy development in acne patients treated with benzoyl peroxide (BPO)."

	Acne treated with BPO	Nevus/Seborrheic keratosis (control)	
Outcomes	**Number of eligible individuals[a] (No. of outcomes, 10-y)**	**Number of eligible individuals[a] (No. of outcomes, 10-y)**	**Hazard Ratio (95% CI)**
Lymphoma[b]	27,397 (55)	27,387 (50)	1.00 (0.68, 1.47)
Leukemia[c]	27,414 (22)	27,402 (22)	0.91 (0.51, 1.65)
Any Lymphoma/Leukemia[d]	27,368 (74)	27,348 (65)	1.04 (0.74, 1.45)
Internal Malignancy[e]	27,250 (326)	27,188 (319)	0.93 (0.79, 1.08)
	Acne treated with BPO	**Viral Warts (control)**	
Outcomes	**Number of eligible individuals[a] (No. of outcomes, 10-y)**	**Number of eligible individuals[a] (No. of outcomes, 10-y)**	**Hazard Ratio (95% CI)**
Lymphoma[b]	63,519 (92)	63,479 (127)	0.67 (0.51, 0.87)
Leukemia[c]	63,524 (40)	63,460 (61)	0.60 (0.41, 0.90)
Any Lymphoma/Leukemia[d]	63,445 (124)	63,359 (161)	0.71 (0.56, 0.89)
Internal Malignancy[e]	63,314 (494)	63,239 (637)	0.71 (0.63, 0.80)

[a]All patients with the clinical outcome of interest prior to the time window were excluded.

[b]ICD-10-CM: C81-86, C88, C90, C96

[c]ICD-10-CM: C91-95

[d]ICD-10-CM: C81-96

[e]ICD-10-CM: C00-C14, C15-C26, ,C30-C39, C40-C41, C45-C49, C50-C50, C51-C58, C60-C63, C64-C68, C69-C72, C73-C75, C76-C80, C7A-C7A, C7B-C7B

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Abstract N°: 7073

Follicular occlusion triad : Case report

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Introduction & Objectives:

Follicular occlusion triad (FOT) is a chronic inflammatory skin disease comprising three conditions hidradenitis suppurativa (HS), acne conglobate (AC), and perifolliculitis capitis abscedens et suffodiens (PC), which share the same underlying pathological process as follicular occlusion. FOT is not commonly reported, and there is no consensus on the treatment plan for FOT. Here, we report a case of follicular occlusion triad.

Materials & Methods:

Case report

Results:

A 24-year-old patient presented with painful nodular inflammatory lesions evolving over the limbs, back, folds, buttock area, the face, ,and scalp, associated with pus discharge and fistulation to the skin. The patient received long courses of antibiotics (doxycycline and amoxicillin) over the years. Clinical examination revealed atrophic, retractile scars with discharging sinuses and comedones on the cheeks, multiple nodular fistulized lesions with pus discharge on the lower limbs and inguinal and gluteal regions, and confluent pustules on the scalp with rarefaction of the scalp. Dermoscopy of the scalp lesions showed a tufted hair appearance with the presence of pustules and scales. The pus culture was sterile; the tuberculosis research laboratory was negative. The clinical features were compatible with the diagnosis of follicular occlusion triad with Hurley Stage II HS, acne conglobate, and dissecting cellulitis of the scalp. Treatment with dapsone was indicated but not started as the patient had a G6PD deficiency. The patient received oral isotretinoin 20 mg/day associated with a low-dose oral corticosteroid 30 mg/day, tapering later with good clinical evolution.

Discussion:

FOT was first named in 1956. In 1975, Plewig and Kilgman proposed to add pilonidal sinus to FOT and rename it “follicular occlusion tetrad,” since these four diseases may all be associated with the pathogenesis of acne.

The FOT complex encompasses several entities that share common clinical features and pathophysiology. The pathogenesis of FOT remains unclear, but the follicular occlusion process in apocrine gland bearing skin is considered the trigger pathogenic event. The occlusion is a result of infundibular keratosis and hyperplasia of the follicular epithelium, which leads to stasis and dilatation; the follicular obstruction could also be triggered by an endogenous factor in patients harboring a genetic predisposition toward altered keratinocyte differentiation and proliferation. The occluded follicles rupture, causing the subsequent significant expression of inflammatory mediators and tissue destruction. The accumulation of bacteria in obstructed and ruptured hair follicle units increases inflammation and results in a pus-containing discharge. This initiates distinctive skin manifestations, such as deep-seated nodules, abscesses, comedones, and sinus tract formation. Medical therapies for severe follicular occlusion disorders are systemic isotretinoin, antibiotics, and prednisone; infliximab; adalimumab; and dapsone. Destructive therapies include X-ray therapy, surgical excision, and laser ablation of hair follicles for

dissecting cellulitis.

Conclusion:

Clinicians should pay more attention to FOT and provide patients with more education on their lifestyle. Due to the paucity of cases reported, there are no treatment guidelines yet, and management often requires a multidisciplinary approach encompassing both medical and surgical specialties.

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Abstract N°: 7080

Insights into Acne: Understanding patient experiences and psychological impact.

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Introduction & Objectives:

Acne is a chronic inflammatory disease of the pilosebaceous unit. When left untreated, it can lead to the formation of indelible scars and post-inflammatory hyperpigmentation, especially in individuals with Mediterranean phototypes. The objective was to collect patient testimonials to explore the psychological repercussions of acne, understand how they cope with this condition, and consequently better manage it.

Materials & Methods:

This is a cross-sectional study with a descriptive and analytical purpose, conducted using an anonymous questionnaire via “Google Forms,” spanning over one year.

Results:

A total of 386 responses were collected. The mean age was 20.2 ± 6.5 years. The female-to-male ratio was 5.1:1. Acne was very mild in 3.4%, mild in 29.5%, moderate in 52.3%, severe in 13.7%, and very severe in 1%. Moderate to very severe acne intensity was correlated with sleep disturbances ($p<0.001$), suicidal ideation ($p<0.001$), self-harm ($p<0.001$), and romantic breakups ($p<0.001$). Regarding acne management, 11.1% reported doing nothing, 43% followed a specific diet, 42.2% engaged in physical activity, 59.8% used sun protection, 69.9% used makeup to conceal lesions, 74.6% reported rigorous hygiene, 55.4% used products purchased in supermarkets, 72.8% used pharmaceutical products, 72.8% used topical treatment prescribed by their doctor, and 49.5% were on oral medication. Nearly half used natural remedies. The use of home remedies was correlated with young age ($p=0.012$), female sex ($p<0.001$), mild acne intensity ($p<0.001$), and family history of acne ($p<0.001$). 85.2% of participants reported suffering from their acne on a daily basis. Self-confidence was impaired in 89.4%. 24.1% had a relationship end because of acne, and 12.4% had considered suicide or self-inflicted injuries. Acne was also reported to be a source of discrimination and injustice at work and school by 47.7%. 78.8% reported being subjected to insults and criticism by their surroundings, and 14.2% suffered from physical/verbal violence. Sleep quality was impaired in 73.6%.

Conclusion:

Often considered as a benign condition, acne can be overlooked by patients and healthcare professionals. Some participants had tried unconventional approaches, highlighting the need to further educate the public on evidence-based treatments. Our results demonstrate the significant psychological impact of acne, including decreased self-esteem and suicidal ideation. It should therefore be taken into consideration when making therapeutic decisions.

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Abstract N°: 7116

Mucinous Adenocarcinoma arising from a fistula-in-ano (FAAA) and Verneuil's disease: A rare presentation

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Introduction & Objectives:

Verneuil's disease, also known as hidradenitis suppurativa, is a chronic inflammatory condition characterized by recurrent painful nodules, abscesses, sinus tracts, and scarring, affecting apocrine gland-bearing areas such as axilla, inguinal, and perianal regions. Fistula-in-ano-associated adenocarcinoma (FAAA) is a rare subtype of adenocarcinoma, typically originating from chronic inflammatory like Crohn's disease or longstanding perianal fistulas. This report aims to present a rare case of Mucinous Adenocarcinoma arising from a fistula-in-ano (FAAA) in the context of Verneuil's disease.

Case description:

A 66 years-old-man with a medical history of diabetes, hypertension, alcoholism, smoking and 14 years of gluteal verneuil's disease managed with oral antibiotics, presented with a painful, tender mass persisting for two years in the same area. Physical examination revealed irregular involvement of the bilateral gluteal, perianal and inguinal areas, with subcutaneous nodules, irregular scars, dermal abscesses, sinuses, ulcers, and skin induration. Biopsy revealed atypical intestinal-type glandular epithelial structures in the fistula with mucinous deposit, raising suspicion of the adenocarinomatous degeneration. Imaging showed hepatic metastasis and complex fistula tracts complicated by transpinal abscesses. A diagnosis of Mucinous Adenocarcinoma arising from a fistula-in-ano within Verneuil's disease was made. The patient underwent chemotherapy and radiation with 5-fluorouracil following discussion at an interdisciplinary tumor board.

Conclusion:

This case underscores the exceedingly rare association between mucinous adenocarcinoma and Verneuil's disease, highlighting the importance of comprehensive evaluation and management. Diagnosis was challenging due to overlapping features with benign Verneuil's disease, necessitating further investigations. Treatment involved a multidisciplinary approach considering the patien's age, comorbidities, and disease burden. Chemotherapy was chosen as the primary treatment modality within surgery.

This case emphasizes the importance of considering malignancy in refractory or atypical presentations of verneuil's disease and the need for comprehensive diagnostic workup management strategies. Further research is warranted to elucidate the underlying pathophysiological mechanisms linking Verneuil's disease and mucinous adenocarcinoma, as well as to optimize treatment outcomes in such rare and challenging cases.

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Abstract N°: 7138

Novel Application of Vectra Imaging for Evaluating Hidradenitis Suppurativa Lesions: Early Results of a Case Series of 10 Patients.

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition with limited objective assessment tools. This abstract investigates the potential use of Vectra, an unexplored imaging technology in HS, for evaluating disease severity. Our study aims to investigate the possibilities of Vectra for precise assessment, focusing on Body Surface Area (BSA) involvement, IHS4, and refined Hurley.

Materials & Methods: Ten patients with HS, ranging from Hurley stage I to III, underwent Vectra imaging, which captured detailed, three-dimensional, high-resolution images. For 4 patients initiating a new treatment, we compared images at weeks 0, 4, and 16 post-initiation. Utilizing Vectra's capabilities, we accurately calculated BSA, refined Hurley, and assessed IHS4 scores by comparing images at these time points. Originally designed for identifying melanocytic lesions through machine learning, Vectra's adaptability to HS assessment is underscored.

Results: Preliminary results demonstrate the successful adaptation of Vectra for HS assessment, highlighting its ability to measure BSA involvement and disease activity scores. These early findings underscore the potential use of Vectra as a valuable tool in the objective evaluation of HS.

Conclusion: The integration of Vectra into HS assessment signifies an important advancement in dermatological imaging. By adapting HS scoring systems and harnessing machine learning, Vectra's autonomous ability to assess HS severity is anticipated. Future targets will involve training Vectra on a broader patient cohort, to enhance its independent capability in disease severity calculation, facilitating monitoring of disease progression during treatment. This study marks an initial step towards utilizing Vectra as a tool for objectively evaluating HS.

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Abstract N°: 7186

Real-world Efficacy of Secukinumab in Hidradenitis Suppurativa: A Case Series of 26 Patients

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a common chronic inflammatory condition that significantly impacts patients' quality of life and strains healthcare systems. Until recently, Adalimumab stood as the sole approved biological treatment for HS and some patients did not respond optimally to it or may had contraindications for its use. Since July 1, 2023, Secukinumab gained approval from the European Commission for moderate to severe HS treatment, demonstrating efficacy and favorable safety profiles in pivotal phase III trials (SUNSHINE and SUNRISE). In individuals with HS, there is an increased expression of interleukin 17 (IL-17), suggesting that targeting the IL-17 pathway could be a potential therapeutic approach.

Materials & Methods: We conducted a retrospective case series involving 26 adult patients diagnosed with moderate to severe HS who underwent Secukinumab treatment at our institution. Patients received subcutaneous injections of Secukinumab 300 mg at weeks 0, 1, 2, 3, and every 4 weeks thereafter or every 2 weeks for those with concomitant psoriasis or elevated BMI. Disease improvement was evaluated using the International Hidradenitis Suppurativa Severity Score (IHS4) and the Dermatology Life Quality Index (DLQI) scores at baseline and at week 12 and with the IHS4-55.

Results: The average age of the participants was 43 years, with A 1:1 male-to-female ratio. Among the patients, 18 (69%) were smokers and the mean body mass index (BMI) of the cohort was 30. At baseline, 18 patients had severe disease activity Hurley III and 8 had Hurley II. At week 12, the mean IHS4 score improved from 18.2 at baseline to 11.3 and the mean DLQI score improved from 22.2 at baseline to 11.6, while 13 patients (50%) achieved IHS4-55. Importantly, no serious adverse events associated with Secukinumab were reported.

Conclusion: Our case series involving 26 patients provides real-world evidence supporting the efficacy of Secukinumab in the management of moderate to severe HS. The substantial reduction in disease burden, as indicated by the improvement in the IHS4 score, and the notable enhancement in quality of life, as well as the achievement of IHS4-55, underscore the positive impact of Secukinumab in HS treatment. These findings highlight the potential of Secukinumab as a valuable therapeutic option for HS patients. Further studies with larger sample sizes and extended follow-up periods are warranted to validate and consolidate these observations.

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Abstract N°: 7190

Clinical characteristics of methylcobalamin (vitamin B12) induced acne: a Descriptive study

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Introduction:

Acne medicamentosa is the term used for acne caused/aggravated due to medication. Vitamin B12 is derived solely from animal products and hence, many people, specially vegetarians are deficient in this vitamin. With its deficiency associated with perioral and knuckle hyperpigmentation, hair and nail changes, glossitis etc., it is supplemented if found deficient in such individuals as therapeutic measure. Methylcobalamin is the most common form of vitamin B12 used to correct its deficiency/low serum levels. Many individuals receiving methylcobalamin supplementation report de novo acne eruptions but not much is documented in this area.

Objective:

To document the clinical characteristics of acne induced by methylcobalamin.

Materials and methods:

This is a descriptive study in which 26 patients reporting de novo acne eruptions after methylcobalamin supplementation (either oral or injectable) were documented. All patients regardless of the gender were >18 years of age, had acne free skin prior, and werenot on polypharmacy. Any patient with concomitant vitamin D supplementation wasnot included. Clinical characteristics were documented in terms of time of onset since supplementation, mode of supplementation, history of adolescent acne/acne prone skin, morphological characteristics of acne and distribution.

Results:

The mean time of onset of eruptions since supplementation was 11 days± 2 days. 65.38% (17 patients) received injectables while rest received oral 1500microgram per day . All of them had history of adolescent acne/acne prone skin. The most common morphological presentation was papular/papulopustular lesions followed by comedones and nodules. Face was involved in all, with truncal involvement in 50% cases.

Conclusion:

Methylcobalamin induced acne/acneiform lesions show a temporal correlation with the vitamin B12 supplementation and mimics acne vulgaris. Hence, a careful history is essential in evaluation of such patients.

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Abstract N°: 7201

A study to evaluate multimodal treatment approach and outcome in the management of atrophic acne scars

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Introduction & Objectives: Acne vulgaris is an extremely common condition with a lifetime prevalence of approximately 85% and occurs mostly during adolescence . Acne vulgaris can persist into adulthood, with a 50.9% prevalence rate of acne in women ages 20 to 29 years versus 26.3% in women ages 40 to 49 years.

Unfortunately, many of those with acne are left with scarring that causes cosmetic concerns, with 30 percent of those affected by scarring considering it a major problem and burden.

There is no standard treatment option for the treatment of acne scars.

Subcision releases the scars from the underlying adhesions which should be the first step for any treatment for acne scars.

Microneedling with dermaroller causes collagen induction along with enhancing absorption of tretinoin cream.

90% TCA peel causes improvement in skin texture as well as collagen induction.

Hence by combining these three minimally invasive modalities one can release the scars, enhance collagen induction, increased penetration of topical agents and resurface the skin.

Autologous PRP(Platelet Rich Plasma) can enhance wound healing by accelerating tissue repair and reducing postoperative pain.

The aim of our study was assessment of combination therapy using subcision, dermaroller and 90% TCA peel for the management of atrophic acne scars and to evaluate the percentage reduction in atrophic acne scars with a multimodal treatment approach.

Materials & Methods: It was a cross-sectional, observational study done in tertiary care centre where 40 treatment naïve patients between the age of 18 to 45 years with atrophic acne scars were graded using Goodman and Baron grading.

Each patient was treated with a combination of TCA CROSS , subcision and microneedling followed by PRP injection. PRP was prepared by centrifuging patient’s own blood.

The treatment was repeated for maximum 4 sittings.

At each follow up, patients were again graded by the same physician using Goodman and Baron Scale and percentage reduction was assessed by improvement scale.

Results: Out of 40 patients, all patients completed the treatment.

Out of 10 patients with Grade 4 scars, 6 (60%) patients improved to Grade 2 and 4 (40%) patients improved to Grade 3 scars. Out of 20 patients with Grade 3 scars, 2 (10%) patients improved to Grade 1and 18 (90%) patients

improved to Grade 2. 8 out of 10(80%) patients with Grade 2 scars were left with no scars.

Hence all 40 patients (100%) had improvement in their scars by some grade with no failure rate.

Poor response with 0-24% improvement in scars was reported by none of the patients.

There was high level of patient satisfaction and photographic improvement.

Patients received an average of 2 sittings(range:1-3).

Conclusion: As the demand for less invasive but effective cosmetic procedures is always on the rise, the multimodal combination of TCA CROSS (to stimulate neocollagenesis), subcision (to release dermal connective tissue tethering), microneedling (to stimulate neocollagenesis) and PRP (to enhance wound healing) appears to be effective for the treatment of acne scars.

It also reduces the number of hospital visits/ sittings for the patient with good outcome, reduced cost and faster healing.

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Abstract N°: 7306

Prevalence of Hidradenitis Suppurativa in Bucharest, Romania

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Introduction & Objectives:

Hidradenitis suppurativa is a chronic inflammatory disease of the apocrine gland-bearing areas frequently misdiagnosed or underdiagnosed. Its true prevalence is still unknown and there is an ongoing interest in this matter.

Materials & Methods:

The current study was a part of the Global Hidradenitis Suppurativa Atlas (GHiSA) initiative that is actively involved in better understanding the epidemiological characteristics of HS. This study was a multicenter study in two tertiary care hospitals in Bucharest.

Results:

The prevalence of hidradenitis suppurativa in Bucharest, Romania was around 0.75% (95% confidence interval [0.35 % - 1.63%]).

Conclusion:

There aren't any data available regarding the prevalence of hidradenitis suppurativa in Romania and the current report is the first paper addressing the prevalence of HS in the capital of Romania, Bucharest.

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Abstract N°: 7341

Dissecting folliculitis successfully treated with combined systemic isotretinoin and dapsone

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Introduction & Objectives: Dissecting folliculitis, also known as dissecting cellulitis or perifolliculitis capitis abscedens et suffodiens of Hoffman, is a rare, idiopathic chronic inflammatory disorder of the scalp. It predominantly affects young adult males between the ages of 18 and 40 years, presenting with nodules, abscesses, and draining sinuses on the vertex and occipital scalp. Treatment is often difficult and challenging.

Materials & Methods: Here, we report the case of a 22-year-old male patient with a two-year history of refractory dissecting folliculitis accompanied by conglobate acne. Initial therapies with systemic and topical antibiotics, and surgical debridement had failed to elicit significant improvement. Upon evaluation at our institution, a treatment regimen with isotretinoin was initiated at a maximum dose of 1mg/kg. After four months, due to an inadequate response, dapsone was added to the treatment at a maximum dose of 100 mg daily.

Results: Following the initiation of combined therapy with isotretinoin and dapsone, a remarkable clinical response was observed. The majority of lesions resolved, with only one persistent sinus tract, effectively managed with intralesional triamcinolone. After six months of this combined treatment, isotretinoin was gradually tapered off, and the patient continued dapsone therapy, administered at a dosage of 100 mg daily for an additional four months, after which the dosage was reduced to 50 mg daily. The patient is presently on a regimen of 50 mg of dapsone every other day and has remained free of disease recurrence during the seven-month follow-up period after discontinuing isotretinoin treatment.

Conclusion: The combination of isotretinoin and dapsone appears to be an effective and cost-efficient therapeutic strategy for treating dissecting folliculitis. Further studies are warranted to establish optimal treatment protocols and long-term outcomes.

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Abstract N°: 7399

practice and attitude of retail pharmacists regarding acne management

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Introduction & Objectives:

Acne is an inflammatory dermatosis of the pilosebaceous follicle that can affect all ages. According to recent epidemiological data, it is classed as the eighth most common disease. Management of this condition is shared between the doctor, the pharmacist and the patient. The pharmacists - and their teams - can advise and prescribe dermo-cosmetics that are suitable for the patient, provide advice on hygiene and diet, and refer the patient to a dermatologist if necessary. The aim of this study is to evaluate knowledge, attitudes and practices of dispensing pharmacists concerning the management of acne in the Casablanca region of Morocco.

Materials & Methods:

We conducted a cross-sectional study over a period of 6 months, between July and December 2023 in the Casablanca region. Were included in this study all dispensing pharmacists and their staff who completed the questionnaire in its entirely. Data collection was carried out using a Google Forms questionnaire comprising several sections, analysing the following data sociodemographic, anamnestic and behavioural data.

Results:

A total of 144 pharmacists responded to our questionnaire. The number of people turning to pharmacists for acne management is higher in rural areas (40 acne patients per week compared to 07 in urban areas). The majority of pharmacists prescribe dermo cosmetics, local treatment or oral antibiotic therapy for acne. We also found that 51.2% of pharmacists recommended isotretinoin without medical advice. 31% recommended cyclins for children under the age of 8. With regard to the forms of acne treated in pharmacies, 72.1% of pharmacists treated mixed acne, 48.1% treated inflammatory acne and 43.3% treated retentional acne.

The forms of acne treated by pharmacists and their teams are the following mild forms (84.1%). In these forms, the therapeutic approach most commonly used was the prescription of local anti acne medication (77.3%). In moderate and severe forms the majority of pharmacists - and their teams - referred their patients to a specialist (66.2% and 96.2% respectively).

Discussion:

The role of the pharmacist is to provide the best possible support and advice to the patient, both when dispensing an anti-acne prescription and when a spontaneous request. This survey has enabled us to detect practices that do not comply with the code of ethics for dispensing pharmacists with regard to the management of acne, in particular the prescription of treatments such as antibiotics, isotretinoin or cyclins in children.

Conclusion:

In the light of this study, we conclude that campaigns to raise awareness, provide ongoing training and monitor the practices of pharmacists and pharmacy assistants are essential and help to reduce the teratogenic effect, antibiotic resistance and misuse of certain drugs.**

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Abstract N°: 7405

Routine Care of Hidradenitis suppurativa in Germany - a snapshot

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) is a chronic inflammatory skin condition characterized by painful nodules and abscesses in intertriginous areas. Despite its prevalence and impact on patients' quality of life, HS management remains challenging. To better understand the current landscape of HS care in Germany, a nationwide survey targeting dermatologists was conducted. The primary objectives were to characterize HS care provided by dermatologists, evaluate adherence to clinical guidelines, assess the utilization of medication and surgical interventions, identify barriers to guideline-based care, and evaluate the willingness of dermatologists to participate in regional HS networks.

Materials & Methods:

A cross-sectional survey using an online questionnaire was administered to a random sample of dermatologists across Germany. The questionnaire collected demographic information, practice characteristics, and details regarding HS management practices. A total of 289 dermatologists participated, with 235 providing complete responses. Descriptive analyses were performed on the collected data to examine patterns of HS care and identify areas for improvement.

Results:

Among the respondents, 85.5% (n=201) were in practice, while 14.5% (n=34) were affiliated with hospitals. On average, clinics treated 42.4 HS patients per quarter, whereas practices saw 11.8 patients. The majority of practices (91%) utilized topical therapies, while clinics predominantly employed biologics (93%) and surgical interventions (89%). Despite these differences, both settings cited inadequate reimbursement (72% of practices, 61% of clinics) and time constraints (53% of practices, 62% of clinics) as primary barriers to guideline adherence. Notably, 46% of clinics and 29% of private practices collaborated with wound care centers.

Conclusion:

The findings highlight significant opportunities to enhance HS care in Germany. Strategies to address identified barriers include improving access to specialized care, addressing reimbursement challenges, and fostering interdisciplinary collaboration. Efforts to educate healthcare providers, streamline care pathways, and incentivize guideline adherence may contribute to improved patient outcomes and healthcare efficiency. Further research and initiatives aimed at addressing the identified barriers are warranted to optimize HS management nationwide and improve the quality of life for patients with this debilitating condition.

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Abstract N°: 7415

Quality of life before and after specific cosmetic procedures in women with acne vulgaris

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Introduction & Objectives: In modern medicine, achieving a patient's desired quality of life through personally matched therapy is a significant problem and a top priority. Individuals with obvious dermatological conditions are especially vulnerable to a decline in overall quality of life. Among the skin disorders, acne significantly lowers a person's quality of life. It alters their self-image, which exacerbates their mental health and increases their risk of depression and suicidal thoughts. Consequently, interpersonal relationships become challenging, and social and occupational issues arise, demonstrating that acne is more than just a physical issue. It integrates extensively with psychodermatology and has become a significant public health issue in social medicine. Complete success with acne therapy often requires specific cosmetological procedures in addition to proper skin care and pharmaceutical treatments. This study aimed to assess the influence of selected cosmetological treatments on the quality of life of women with acne.

Materials & Methods: The study group comprised ninety-one women, ages 19 to 29 (x = 24.5 years, SD = 2.8 years), with an average history of acne lesions spanning two to fourteen years. The physician diagnosed facial acne assessed the clinical picture's severity and recommended a particular cosmetological treatment. After ruling out contraindications, a series of specific treatments (diamond microdermabrasion, chemical peelings, intense pulse light) were administered based on the patient's selected course of action. Before and after the cosmetological treatments, the quality of life of individuals with acne vulgaris was assessed using a particular CAD index (Cardiff Acne Disability Index), which consists of five questions regarding the psychological impact of acne on the quality of life. Data analysis was performed using statistical software (SPSS, version 20.0, SPSS, Inc. Chicago, IL). For quantitative variables, the arithmetic mean, SD, and range of variation (extreme values) were calculated.

Results: The application of a number of cosmetological treatments resulted in a considerable improvement in the quality of life, as demonstrated by statistical analysis of the data collected from the CAD index. In terms of statistics, the findings are significant.

Conclusion: According to the Hellgren-Vincent scale, patients who suffered from acne vulgaris reported a significant improvement in both the state of their skin and their quality of life after receiving cosmetological therapies. It is possible that this type of therapy will become an essential component of dermatological care.

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Abstract N°: 7508

Real-world Experience with Secukinumab in Hidradenitis Suppurativa: Insights from a multicenter retrospective analysis of 288 cases

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Introduction & Objectives:

Secukinumab, an interleukin-17A-targeting monoclonal antibody, recently garnered approvals from the EMA and FDA for treating Hidradenitis Suppurativa (HS), leveraging data from the SUNNY clinical trial.1 Despite these approvals, a dearth of high-quality real-world data hampers a comprehensive understanding of secukinumab's efficacy beyond the controlled confines of clinical trials.

This study, led by the Spanish Hidradenitis Suppurativa Taskforce, aims to analyze real-world experiences with secukinumab in the management of Hidradenitis Suppurativa, focusing on safety and effectiveness.

Materials & Methods:

We conducted as a retrospective, multicenter investigation, including consecutive HS patients treated with secukinumab between 2020 and 2023, ensuring a minimum 24-week follow-up. The primary endpoint was the proportion of patients achieving a HiSCR50 at week 16, aligning with SUNNY trial parameters. Safety assessments included adverse events, serious infections, and other potential risks associated with secukinumab use in real-world scenarios.

Results:

The cohort comprised 288 patients (145 women and 143 men), with a mean age of 41.83 years, distributed in 158 inflammatory phenotype cases, 130 mixed phenotype cases (based on Martorell´s phenotypes model).2 Hurley staging distributed across grades I, II, and III of 8 (1%), 110 (39%), and 170 cases (60%) respectively. At week 16, 112 of 195 cases (57.3%) achieved HiSCR50 , with an additional 121 of 188 cases (64,3%) reaching HiSCR at week 24. Drug was stopped in 38 of 288 cases (14%) at week 24, being 5 of them related with adverse events (1 case with oral candidiasis, 2 patients with moderate-severe paradoxal psoriasis, 1 case with an ulcerative colitis flare, 1

case with cutaneous Crohn´s disease).

Conclusion:

In real-world clinical practice, secukinumab demonstrated both efficacy and safety in treating patients with moderate-to-severe hidradenitis suppurativa, reinforcing its status as a viable therapeutic option. These findings contribute valuable insights for healthcare professionals, researchers, and stakeholders navigating the complexities of managing patients with Hidradenitis Suppurativa.

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Abstract N°: 7519

Hidradenitis suppurativa and inflammatory bowel disease - an observational retrospective study

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Hidradenitis suppurativa and inflammatory bowel disease - an observational retrospective study

Introduction & Objectives:

Hidradenitis suppurativa (HS) and inflammatory bowel disease (IBD) are inflammatory diseases that share genetic and immunological susceptibility, with several characteristics in common such as the presence of sterile abscesses in the perineal and inguinal region, fistulous tracts and scars.. Both pathologies are associated with immunological dysregulation, with an increase in cytokines such as IL-1, IL-6, IL-17, IL-23 and TNF-alpha. The inflammatory cascade of both diseases overlaps, and both respond to anti-TNF drugs.

Various studies demonstrated an increased risk of IBD in HS patients (4-8 times higher than in general population)

In this retrospective study we aimed at identifying and describe the population of patients with both HS and IBD.

Materials & Methods:

We performed a retrospective observational study to characterize both HS-population and IBD-population. We identified patients observed in both Dermatology-HS and Gastroenterology-IBD consultations in the last 18 months in a tertiary hospital.. We accessed the clinical data and collected and analysed parameters such as age, gender, date of diagnosis of HS and/or IBD and time interval between the two diagnosis, severity of the diseases and therapies, including biological therapy and outcome.

Results:

Thirteen patients observed on both consultations were identified. Most patients were male (n/59%) with a mean BMI of 23.9. and 46% were active smokers. All patients, except 2, had the diagnosis of IBD at the time of observation at the Dermatology consultation Most of the patients suffered from Crohn´s disease (n/) and only X had ulcerative colitis. ((seria importante dizer a localização da HS- tenho ideia que é muito perianal…)). A patient had an autoinflammatory syndrome with type 1 diabetes mellitus, severe HS, Crohn's disease, palmoplantar psoriasis and polyserositis. The diagnosis of HS was made on average 2,77 years after the diagnosis of IBD. Skin biopsy was performed in one patient to help to distinguish HS from metastatic Crohn´s disease.

The majority of the patients (n/%) had moderate to severe HS, and 11 of them (84%) were on biotechnological therapy, most of them on ustekinumab (8), with 2 patients on adalimumab and 1 on guselkumab. The introduction or switch of the biologic drug was due to HS not controlled with conventional therapy or with adalimumab or due to adverse reactions. In 3 patients it was necessary to suspend anti-TNF drug due to worsening of psoriasis or severe seborrheic dermatitis

Conclusion:

Epidemiological studies found a link between these two immune inflammatory disorders . Both HS and IBD have a considerable impact on patients' quality of life. Therefore, a multidisciplinary approach is essential. Patients with

HS should be questioned for gastrointestinal symptoms and if present should be referred to gastroenterology consultation. The effect that one disease has on the other remains to be clarified.

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Abstract N°: 7564

Comparative analyses of HS surgical methods: Systematic Review and Meta-Analysis

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a challenging skin condition characterized by painful nodules and abscesses, often requiring a multifaceted approach for effective management. Despite the utilization of antibiotics and biologics, surgical intervention frequently becomes necessary due to the recalcitrant nature of the disease. Our team recently conducted a scoping review to assess the prognostic factors influencing surgical results. The results revealed that various excision methods along with different reconstruction techniques have substantial impact on rates of post-surgical recurrence, dehiscence, and infection. These findings shed light on crucial considerations for optimizing surgical management strategies for HS. This systematic review and meta-analysis aim to precisely identify and quantify the effects of excision methods and reconstruction techniques on HS surgical outcomes.

Materials & Methods:

We identified studies for inclusion by comprehensively searching the MEDLINE and EMBASE databases for articles evaluating patients having undergone surgical treatment for HS. Inclusion was limited to studies that evaluated at least two different types of either excision or reconstruction techniques. Outcomes of interest included rate of recurrence, delay in healing, complications, and pain. Additional outcomes included quality of life. No studies were excluded based on language or geographic location. Two reviewers independently screened articles based on title, abstract and full text for eligibility. Data such as patient characteristics, surgical methods and health-related outcomes were extracted using the Covidence software by two reviewers. Conflicts were resolved by consensus or consultation with a senior author.

Results:

We identified 33 studies for inclusion, the majority of which were of retrospective design. Excisional techniques reviewed included wide excision, limited excision, deroofing or debridement, and incision and drainage. Wound healing methods surveyed included primary closure, secondary intention healing, grafting, flap closure, and vacuum-assisted closure. Follow-up length varied from 2 months to 72 months. Compared to wide excision, partial excision (risk ratio [RR] 1.66, 95% confidence interval [CI] 1.21 to 1.27) and incision and drainage (RR 2.01, 95% CI 1.42 to 2.86) were associated with an increased risk of recurrence. Split-thickness skin grafting was associated with a greater risk of recurrence compared to primary closure (RR 1.36, 95% CI 1.04 to 1.78). No difference in recurrence rates was found comparing primary to secondary intention healing or secondary intention healing to grafting. **

Conclusion:

The results of our systematic review and meta-analysis indicate that limited excision, incision and drainage, and split-thickness skin grafting may be associated with an increased risk of recurrence. Further research is required to define clinical guidelines for HS surgical treatment planning.

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Abstract N°: 7587

Acneiform facial eruption revealing chronic inflammatory bowel disease: A case report

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Introduction & Objectives:

Numerous cutaneous-mucosal manifestations can be observed during chronic inflammatory bowel diseases (IBD), especially during Crohn's disease. They sometimes precede digestive manifestations, thus allowing the diagnosis of latent IBD.

Materials & Methods:

We report a case of a patient with an acneiform facial eruption revealing chronic inflammatory bowel disease.

Results:

A 22-year-old female patient, with no particular medical history, has been presenting with acneiform lesions on the face and photosensitivity for the past 5 years. The patient also experiences inflammatory low back pain and a history of chronic constipation for 5 years. Clinical examination revealed inflammatory nodules with pustules resting on an erythematous background with some atrophic scars. Dermoscopy revealed pustules, erythema, and a slight yellow-orange background. The remainder of the clinical examination showed a pelvi-axial syndrome characterized by lumbosacral sensitivity and limited sacroiliac joint mobility of 1 cm, consistent with axial spondylarthritis. Histology of the lesions showed a dense inflammatory infiltrate of the dermis rich in neutrophilic polymorphonuclear cells, suggestive of neutrophilic dermatosis. Laboratory tests showed a complete blood count, renal and hepatic function within normal limits, with a low ferritin level of 7.9, positive HLA-B27, erythrocyte sedimentation rate (ESR) of 20 mm/hour, and elevated fecal calprotectin at 128 mg/kg, indicative of inflammatory pathology. Colonoscopy with esophagogastroduodenoscopy was requested. The diagnosis made was acneiform eruption of IBD. The patient was started on oral doxycycline 100 mg/day for 3 months with clinical improvement of the lesions.

Conclusion:

The cutaneous manifestations of IBD are variable and sometimes misleading. Understanding them enables early diagnosis and the exclusion of other differential diagnoses.

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Abstract N°: 7925

Bimekizumab efficacy and safety through 2 years in patients with hidradenitis suppurativa: Results from the phase 3 BE HEARD I&II trials and open-label extension BE HEARD EXT

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Introduction & Objectives:

Interleukin (IL)-17F and IL-17A are highly expressed in hidradenitis suppurativa (HS) lesional skin, and play a role in immunopathogenesis of the disease.1–3 Bimekizumab (BKZ) is a humanised IgG1 monoclonal antibody that selectively inhibits IL-17F in addition to IL-17A and has demonstrated clinically meaningful improvements in patients (pts) with HS.4,5 Here, BKZ efficacy and safety data are presented over 2 years (96 weeks [wks]) for the pooled BE HEARD I&II (BHI&II) trials and BE HEARD EXT (BHEXT).5,6

Materials & Methods:

In BHI&II, pts with moderate to severe HS were randomised 2:2:2:1 (initial [16-wk]/maintenance [32-wk]) to BKZ 320mg every 2 wks (Q2W)/Q2W, BKZQ2W/Q4W, BKZQ4W/Q4W or placebo/BKZQ2W.5** Wk48 completers could enrol in BHEXT and received open-label BKZQ2W or BKZQ4W based on ≥90% HS Clinical Response (HiSCR90; averaged from Wks36/40/44).

We report HiSCR50/75/90/100 rates, percentage change from baseline (%CfB) in International HS Severity Score System (IHS4), %CfB in draining tunnel (DT) count and Dermatology Life Quality Index (DLQI) 0/1 achievement at Wk48 and Wk96, plus a safety overview over 2 years.** For efficacy outcomes we report patients who were randomised to BKZ in BHI&II and entered BHEXT (BKZ Total group; data reported as observed case [OC]); for safety outcomes we report pts who received ≥1 dose of BKZ across BHI&II/BHEXT.

Results:

Of 1,014 total pts, 556 pts randomised at baseline to BKZ in BHI&II completed Wk48 and entered BHEXT; 446 pts in BHEXT completed Wk96.

At Wk48, HiSCR50/75/90/100 was achieved by 79.9%/64.0%/42.3%/30.2% of BKZ Total pts; responses improved to Wk96: 85.4%/77.1%/57.6%/44.2% (**Figure**). Among BKZ Total pts, mean±SD IHS4 score at baseline was 35.6±31.5; mean±SD %CfB in IHS4 was −70.3±39.6% at Wk48 and −79.8±28.1% at Wk96. Mean±SD DTs at baseline was 3.8±4.3 in the BKZ Total group; mean±SD %CfB in DTs was −57.5±72.9% at Wk48 and −73.7±45.7% at Wk96. Mean±SD DLQI Total at baseline in the BKZ Total group was 11.0±6.8; the proportion of BKZ Total pts who achieved DLQI 0/1 at Wk48 was 27.4% (151/551) and at Wk96 was 33.9% (149/439).

Over 2 years, 917/995 (248.9 per 100 pt years [PY]) pts who received ≥1 dose of BKZ experienced a treatment-emergent adverse event (TEAE) (**Table**). Serious TEAEs were reported in 122 (7.2/100 PY) pts. TEAEs leading to discontinuation were reported in 109 (6.3/100 PY) pts. Serious infections occurred in 33 (1.9/100 PY) pts. Safety data were comparable with 1-year data from BHI&II.5

Conclusion:

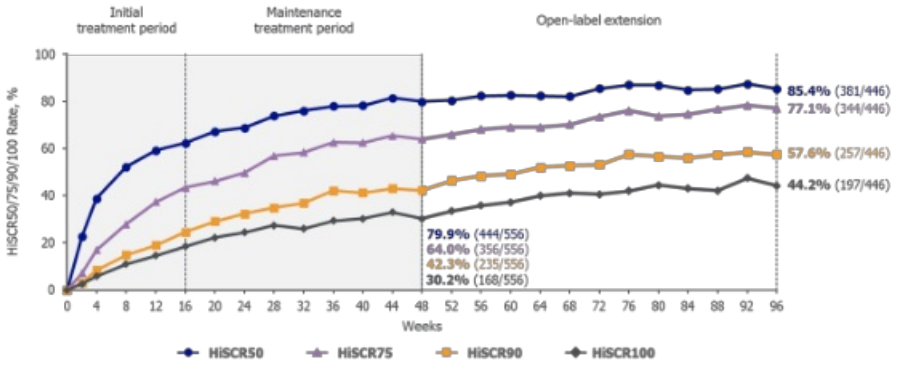
In patients treated with BKZ, clinically meaningful improvements in efficacy outcomes observed at 1 year, including the HiSCR75/90/100 endpoints and continuous %CfB in IHS4 and DTs, were maintained to 2 years of treatment. Improvement in quality of life was also maintained over 2 years.

BKZ was generally well tolerated; no new safety signals were observed and the safety profile over 2 years was consistent with findings from BHI&II and studies of BKZ in other indications.5,7–9

References:

1. Skelton A. J Invest Dermatol 2023;143:S87; **2.** Kimball AB. Exp Dermatol 2022;31:1522–32; **3.** Zouboulis VA. Pharmaceutics 2021;14:44; **4.** Adams R. Front Immunol 2020;11:1894; **5.** Kimball AB. Lancet 2024;403:2504–19 (NCT04242446, NCT04242498); **6.** BE HEARD EXT: https://clinicaltrials.gov/study/NCT04901195; **7.** Reich K. N Engl J Med 2021;385:142–52; **8.** Merola JF. Lancet 2023;401:38–48; **9.** van der Heijde D. Ann Rheum Dis 2023;82:515–26.

Figure. HiSCR to Week 96 (OC)



BKZ Total (n=556); comprised patients who were randomised to BKZ from baseline in BHI&II and entered BHEXT. OC, n/N: denominator represents number of patients with a non-missing lesion count assessment in the given week, and percentages are calculated accordingly (i.e. where data recorded after an intercurrent event are included as recorded). BKZ: bimekizumab; HiSCR: Hidradenitis Suppurativa Clinical Response; HiSCR50/75/90/100: ≥50/75/90/100% reduction from baseline in the total abscess and inflammatory nodule count with no increase from baseline in abscess or draining tunnel count; OC: observed case.

Table. Overview of safety outcomes over 2 years

	Patients with ≥1 dose BKZ[a] N=995
	EAIR (95% CI)
Any TEAE	248.9 (233.0, 265.5)
Serious TEAEs	7.2 (6.0, 8.6)
Severe TEAEs	7.7 (6.4, 9.2)
TEAEs leading to discontinuation	6.3 (5.1, 7.6)
All deaths[b]	0.1 (0.0, 0.4)
Most common TEAEs[c]	
Hidradenitis	20.5 (18.2, 23.0)
Coronavirus infection	15.3 (13.4, 17.4)
Oral candidiasis[d]	10.5 (8.9, 12.2)
Serious infections	1.9 (1.3, 2.6)
Fungal infections	24.4 (21.8, 27.2)
Any malignancies	0.7 (0.4, 1.3)
Any hepatic events	4.7 (3.7, 5.8)
Adjudicated suicidal ideation and behaviour[e]	0.7 (0.4, 1.3)
Definite or probable adjudicated IBD	
With history of IBD (n=8)	14.2 (1.7, 51.2)
No history of IBD (n=987)	0.5 (0.2, 0.9)

Data presented relates to the initial treatment and maintenance periods of BHI&II, and the open-label extension BHEXT (2 years). TEAEs were coded using MedDRA v19.0 and reported over 2 years using EAIRs per 100 patient years. [a] TEAEs for all patients who received ≥1 BKZ dose over 2 years, including patients who switched at Week 16 from placebo to BKZ 320 mg Q2W (n=134; for these patients, events are reported after the switch to BKZ and for 80 weeks of BKZ treatment); [b] Over 2 years, 2 patients receiving BKZ died; one patient with significant cardiovascular history died due to congestive heart failure, one patient died due to possible central nervous system infection in the context of deteriorating HS; [c] Top three most common TEAEs are presented for the BKZ Total group across the initial, maintenance and OLE treatment period; [d] The majority of oral candidiasis cases were mild to moderate and were resolved/recovered with standard anti-fungal therapy; [e] There were no events of completed suicide. BKZ: bimekizumab; CI: confidence interval; EAIR: exposure-adjusted incidence rates; HS: hidradenitis suppurativa; IBD: inflammatory bowel disease; OLE: open-label extension; Q2W: every 2 weeks; TEAE: treatment-emergent adverse event.

EA DV CONGRESS
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Abstract N°: 7995

Efficacy and safety of izokibep, a novel IL-17A inhibitor, in moderate-to-severe hidradenitis suppurativa: Week 12 results from a randomized, double-blind, placebo-controlled, multicenter, phase 3 study

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, painful, systemic inflammatory disease characterized by inflammatory nodules, skin abscesses, and draining tunnels, in which dysregulated interleukin (IL)-17A plays a key role. Izokibep (IZO) is a small protein therapeutic (18.6 kDa) designed to selectively inhibit IL-17A with high potency through tight binding affinity. We report the efficacy and safety of IZO at week (wk) 12 from a phase 3 study in patients with moderate-to-severe HS.

Materials & Methods:

Study 22107 (NCT05905783) included a 16-wk, randomized, placebo (PBO)-controlled treatment period. Eligible patients were 18 years of age or older and had a diagnosis of HS for ≥6 months; lesions present in ≥2 distinct anatomic areas (1 Hurley stage II/III); a total abscess and inflammatory nodule count ≥5; and an inadequate response, intolerance, or contraindication to oral antibiotics (use of a stable dose of oral antibiotics allowed in up to 30% of enrolled patients). Patients were randomized 1:1 to receive subcutaneous PBO every wk (QW) or IZO 160 mg QW. The primary study endpoint was HS Clinical Response (HiSCR)-75 at wk 12.

Results:

A total of 258 patients were randomized (PBO, n=129; IZO, n=129). Overall, the mean (standard deviation [SD]) age was 37.3 (12.4) years, 69% of patients were female, and the mean (SD) disease duration was 10.2 (8.7) years. Baseline disease characteristics were generally balanced between groups. Efficacy outcomes are shown in **Table 1**. The primary endpoint of HiSCR75 at wk 12 was met; a higher percentage of patients receiving IZO vs PBO achieved HiSCR75 (33% vs 21%; P <0.05; **Figure 1**). Similarly, patients receiving IZO vs PBO achieved higher rates of HiSCR90 (25% vs 9%; P<0.001) and HiSCR100 (22% vs 8%; P<0.01). Among IZO-treated patients with a baseline pain numeric rating scale (NRS) ≥4, 33% achieved a ≥3-point reduction in pain NRS (vs 17% of PBO-treated patients). Greater improvements were seen with IZO vs PBO in Dermatology Life Quality Index (least squares mean [standard error] change from baseline, –4.9 [0.5] vs –2.7 [0.5]). Treatment-emergent adverse events (AEs) occurred in 79.1% and 52.7% of patients receiving IZO and PBO, respectively, through wk 12. The most common AEs (≥5%) among IZO-treated patients were injection-site reaction (65.1%), headache (10.1%),

nasopharyngitis (7.0%), diarrhea (5.4%), and fatigue (5.4%). Serious AEs were reported at low rates (IZO, 0.8%; PBO, 3.1%). No *Candida* infections, inflammatory bowel disease, or suicidal ideation were reported with IZO.

Conclusion:

In this phase 3 study, IZO 160 mg QW met the primary endpoint, with one-third of patients with moderate-to-severe HS achieving HiSCR75 at wk 12. Additionally, IZO-treated patients demonstrated early improvements at wk 12 across other key disease measurements, including HiSCR90, HiSCR100, pain, and quality of life. IZO treatment was well tolerated, with no new safety signals and a safety profile generally consistent with that of other IL-17A–selective inhibitors.

Table 1. Week 12 Efficacy Results

	Placebo QW (n=129)	Izokibep 160 mg QW (n=129)
HiSCR75	21%	33%†
HiSCR90	9%	25%†††
HiSCR100	8%	22%††
HiSCR50	37%	48%
DLQI, CFB, LSM (SE)	–2.7 (0.5)	–4.9 (0.5)**
AN count of 0, 1, or 2[a]	27%	50%**
≥3-point reduction in pain NRS[b]	17%	33%*
≥1 disease flare[c]	31%	29%

Response rates were determined using NRI for patients who received antibiotic therapy that could affect HS and for patients with missing data who discontinued treatment for reason of adverse event or lack of efficacy, with multiple imputation for all other patients with missing data. Statistical significance per the prespecified testing hierarchy: †P<0.05, ††P<0.01, †††P<0.001 vs placebo. Nominal P-value: *P<0.05, **P<0.01 vs placebo.

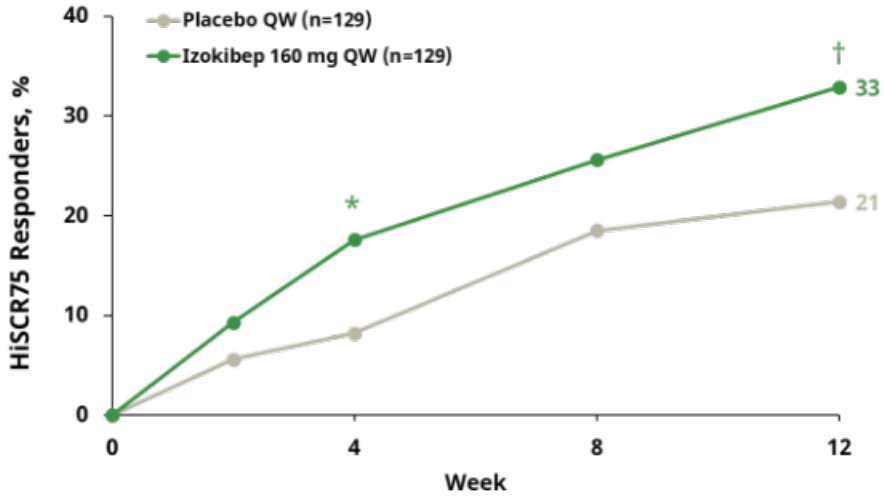
[a]In patients with baseline Hurley stage II (placebo, n=82; izokibep, n=78).

[b]In patients with baseline pain NRS ≥4 (placebo, n=79; izokibep, n=73). Response rates were determined using NRI for patients with missing data who discontinued treatment for reason of adverse event or lack of efficacy and patients who received prohibited analgesic therapy for HS within 28 days of the visit, with multiple imputation for all other patients with missing data.

[c]Disease flare defined as ≥1 flare (≥25% increase in AN count with a minimum increase of 2 AN relative to baseline) at any time through week 12.

AN, abscess and inflammatory nodule; CFB, change from baseline; DLQI, Dermatology Life Quality Index; HS, hidradenitis suppurativa; HiSCR50/75/90/100, ≥50%/≥75%/≥90%/100% improvement in HS Clinical Response (≥50%/≥75%/≥90%/100% reduction from baseline in the total AN count, with no increase from baseline in abscess or draining fistula count); LSM, least squares mean; NRI, nonresponse imputation; NRS, numeric rating scale; QW, every week; SE, standard error.

Figure 1. HiSCR75 Through Week 12



The primary study endpoint was HiSCR75 at week 12. Response rates were determined using NRI for patients who received antibiotic therapy that could affect HS and for patients with missing data who discontinued treatment for reason of adverse event or lack of efficacy, with multiple imputation for all other patients with missing data. Statistical significance per the prespecified testing hierarchy: †P<0.05 vs placebo. Nominal P value: *P<0.05 vs placebo.

AN, abscess and inflammatory nodule; HS, hidradenitis suppurativa; HiSCR75, ≥75% improvement in HS Clinical Response (≥75% reduction from baseline in the total AN count, with no increase from baseline in abscess or draining fistula count); NRI, nonresponse imputation; QW, every week.

EADV CONGRESS
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Abstract N°: 7997

Familial occurrence of hidradenitis suppurativa is associated with increased risk of metabolic syndrome

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Introduction & Objectives:

Hidradenitis suppurativa (HS), or acne inversa (Ai), is a chronic inflammatory disease leading to cutaneous and subcutaneous formation of nodules and fistula with discharge of pus resulting in fibrotic scars. TNF-α, interleukin (IL)-17 and IL-1 are key cytokines in its pathogenesis. As, in other TNF-α/IL-17-driven skin conditions, such as psoriasis, there is a higher risk for metabolic syndrome and cardiovascular comorbidity. However, to date, the interaction between familial occurrence of HS and onset of hyperlipidemia, cardiovascular diseases and diabetes mellitus (type 2) has not been studied.

Materials & Methods:

We performed a meta-analysis of data from two different studies (the EpiCAi [Epidemiology and Care in Acne inversa, Mainz/ Germany]; and the Batman study [Biomolecular Analyses for Tailored Medicine in Acne iNversa], ERA PerMed funded EU study]) that covers a total number of 236 participants.

Results:

Overall, 166 female and 70 male patients with HS were included. Whereas 61 participants (~25,8 %) revealed a positive family history with HS, in 175 patients (74,2%) the disease occurred sporadically. The gender distribution did not differ between familial vs. sporadic appearance. However, the age of onset was significantly earlier in cases with familial predisposition (20.4±8.4 vs. 23.6±10.2 years), while the diagnosis was made markedly later (~4 years) compared to sporadic cases. Of note, familial cases showed an almost comparable, but slightly less severe disease activity compared to sporadic patients (Hurley I 26% vs. 19%, Hurley II 59% vs. 57%, Hurley III 15% vs. 24%). Importantly, however, the odds ratio for the onset of hyperlipidemia, cardiovascular diseases or diabetes mellitus in HS patients with a positive family history compared to sporadic cases was 2.36 vs. 2.99 vs. 1.76, respectively. Surprisingly, this phenomenon was independent of the smoking behavior (~54% smokers, no difference) and body mass index (with an average BMI of 30.7±6 and no difference between the groups).

Conclusion:

In summary, we show that there is profound higher risk for the development of hyperlipidemia, cardiovascular diseases and diabetes mellitus for patients with a positive family history of HS. It has to be highlighted that the age of onset is significantly earlier, the diagnosis is made markedly later in familial vs. sporadic cases, probably due to self-management of disease. Both key results underline the need of a sensitive care and cardiovascular follow-up of HS patients, especially with a familial predisposition.