EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 41

Epidemiological, Clinical, and Therapeutic Profile of Verneuil's Disease:

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Introduction & Objectives:

Hidradenitis suppurativa, also known as Verneuil's disease, is a chronic inflammatory skin condition characterized by painful nodules, suppurative fistulas, and scarring, primarily affecting hair follicle-bearing areas. Frequently underdiagnosed, Hidradenitis suppurativ significantly impacts patients' quality of life, causing physical pain, psychological distress, and social difficulties. This study aims to highlight the clinical and biological aspects of diagnosis, outline therapeutic strategies, and explore factors influencing disease progression to improve patient outcomes.

Materials & Methods:

This is a retrospective, descriptive, monocentric study that includes all patients hospitalized for hidradenitis suppurativa in the dermatology department over a 10-year period, from June 2014 to November 2024. We analyzed patients' epidemiological, clinical, paraclinical, therapeutic, and disease progression data.

Results:

Data were collected from 12 patients, with a mean age of 44.36 ± 15.02 years and a male-to-female ratio of 4.5:1. Four patients were single, and three were divorced due to the impact of their condition.

Regarding medical history, eight patients had a history of acne during adolescence, and three had undergone surgery for a pilonidal sinus. Seven patients were active smokers, with an average tobacco consumption of 33.2 ± 11 pack-years. Familial symptomatology was observed in 18% of patients. The average duration of lesion evolution was 8.7 ± 3.8 years, with a mean delay of 12.76 ± 6.7 months from the appearance of lesions to the first consultation.

The mean Dermatology Life Quality Index (DLQI) at admission was 19.65 ± 5.2, indicating a significant impact of the disease on patients' quality of life. The Female Sexual Function Index, assessed in a sexually active female patient, was 21.8, indicating sexual dysfunction, while the International Index of Erectile Function score was 15.3 ± 4, suggesting moderate erectile dysfunction.

The axillary region was the most frequently affected area in our series. The mean number of affected areas was 3.91 ± 1.02. Disease severity, as assessed by the Hurley score, ranged between grades 2 and 3, with a predominance of male patients and greater severity among smokers.

Skin biopsy was performed in one patient due to the transformation of a gluteal ulcerated lesion into squamous cell carcinoma. None of the patients had metabolic syndrome. Three patients had comorbidities associated with Hidradenitis suppurativ, including psoriasis and dissecting cellulitis of the scalp.

Therapeutically, antibiotics were used in 10 patients. Doxycycline was administered to eight patients for an average of 6.25 ± 3.99 months, while the combination of clindamycin and rifampin was used in two patients. Four patients received retinoids.

In terms of biologic therapy, adalimumab was the only biologic used, administered to five patients for an average of 8.2 ±

4.2 months. Surgery was considered for four patients. Treatment-related complications were observed in three patients. A good clinical outcome was noted in two patients. However, four patients were lost to follow-up, one patient died, and disease progression is ongoing in five patients.

Conclusion:

Our study highlights the clinical, biological, and therapeutic aspects of hidradenitis suppurativa, underscoring the need for early diagnosis and multidisciplinary management to improve patients' quality of life.

Abstract N°: 73

A study evaluating sexual function in Thai female patients with moderate to severe acne vulgaris after receiving low-dose isotretinoin compared to doxycycline

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Introduction & Objectives: Isotretinoin use has caused mucocutaneous dryness and is associated with mood changes, suggesting a potential link to sexual dysfunction in women. However, the relationship between isotretinoin and changes in women's sexual function remains underexplored. This study aims to evaluate sexual function in female patients with moderate to severe acne vulgaris after receiving a recommended low-dose isotretinoin compared to a regular dose of doxycycline.

Materials & Methods: This prospective observational study was conducted at a dermatology clinic in a university hospital. Sexually active Thai female patients aged 18–50 years, initiating daily low-dose isotretinoin (10 mg/day) or doxycycline (200 mg/day) without a history of psychiatric illness or conditions affecting sexual function, were recruited. Participants completed electronic questionnaires assessing demographic data, the Thai-validated Female Sexual Function Index (FSFI), the Patient Health Questionnaire-9 (PHQ-9), and the Dermatology Life Quality Index (DLQI) at baseline and 3–4-month intervals. A generalized estimating equations model with an interaction term for the treatment group and time was used to analyze outcomes, adjusting for age, marital status, partner's sex, and intercourse frequency.

Results: Eighty-two patients were screened; 4 were excluded, and 4 were lost to follow-up. Data from 42 isotretinoin and 32 doxycycline patients were analyzed. FSFI and PHQ-9 scores did not differ significantly between groups or across visits. DLQI scores improved significantly in both groups ($p < 0.001$) and were significantly correlated with changes in FSFI scores in the isotretinoin group ($r = 0.386$, $p = 0.012$). Only a few patients reported disturbing side effects, and no sexual dysfunction was reported.

Conclusion: These findings suggest that low-dose isotretinoin, compared to doxycycline, may not negatively affect sexual function in female patients with moderate to severe acne vulgaris. Effective acne treatment improves overall quality of life, which may positively influence sexual function, particularly in the isotretinoin group. Further studies with larger sample sizes and more extended follow-up periods are recommended to confirm these observations.

Abstract N°: 163

The history, development and current status of isotretinoin: a review article

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Introduction & Objectives:

Isotretinoin, a potent retinoid, is highly effective in the treatment of severe acne vulgaris. This literature review delineates the historic trajectory of isotretinoin from early clinical trials in the 1970s and 1980s, highlighting its efficacy and safety profile, leading to FDA approval in 1982. This literature review aims to provide a comprehensive update on isotretinoin, a pivotal treatment for severe acne vulgaris, by integrating historical context, mechanisms of action, and contemporary concerns such as teratogenicity and mental health impacts. Recent advances underscore the need for a current review, ensuring that dermatologists are well-informed about its history, benefits, risks, and potential future applications.

Materials & Methods:

A scoping review methodology was used to identify peer-reviewed articles on PubMed using the search terms “isotretinoin”, “13-cis-retinoic acid”, “sebocytes”, “sebaceous glands”, “cancer” “clinical trials”, “animal studies”, “depression”, “teratogenicity”, “pregnancy prevention” and “sexual dysfunction”.

Results:

Following the initial search, title and abstract screening and full-text review process, a total of 27 studies were listed for inclusion.

Conclusion:

Isotretinoin, remains crucial for severe acne treatment since FDA approval in 1982. It is highly effective but carries risks, leading to strict guidelines. NICE advises its use in treatment-resistant acne with pregnancy prevention and mental health monitoring, despite inadequate evidence linking it to depression. Isotretinoin is limited in other medical uses outside of dermatology. Studies should explore its optimal use in other dermatological conditions through high-quality trials.

Abstract N°: 189

Skin Microbiota and Its Impact on Rosacea

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Introduction & Objectives:

The skin microbiome is an important factor in the development of rosacea. Research suggests significant changes in the composition of the microbiome, both on the facial skin and in the gut, in patients with rosacea, suggesting that these changes may contribute to the onset and progression of the disease. Increased microbial diversity on the facial skin has been observed in people with rosacea, highlighting the complex relationship between the microbiome and the inflammatory processes associated with the condition.

Materials & Methods:

The authors conducted a search of the PubMed database to investigate the effect of skin microbiota on the modulation of rosacea progression; the search was as broad as possible, covering the period from the inception of the database to December 2024. The analysis included 15 original studies conducted in accordance with PRISMA guidelines.

Results:

The skin microbiome plays a crucial role in rosacea development, with studies revealing particular differences between diagnosed patients and healthy individuals. Key findings include a reduced abundance of Cutibacterium acnes, which helps maintain skin balance, and an increased presence of Staphylococcus epidermidis, a commensal that can become pathogenic and promote inflammation. Other bacterial species, such as *Corynebacterium kroppenstedtii* and *Prevotella intermedia*, have also been implicated, though their roles remain unclear. These microbiome changes highlight the need for further research into mechanisms and targeted therapies for rosacea.

Conclusion:

The findings highlight the significant role of the skin microbiome in the development and progression of rosacea. Changes in the composition of the microbiome, including a reduction in *Cutibacterium acnes* and an increase in Staphylococcus epidermidis, suggest a disruption in microbial balance that may contribute to inflammation and disease progression. Other bacterial species, such as *Corynebacterium kroppenstedtii* and *Prevotella intermedia,* may also play a role, though their mechanisms remain poorly understood. These insights underscore the importance of further research into microbiome-targeted approaches, which could pave the way for novel diagnostic and therapeutic strategies in rosacea management.

Abstract N°: 215

IL-36R inhibitor - spesolimab highly effective in the treatment of rare PASH-syndrome

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Introduction & Objectives:

PASH syndrome is a rare autoinflammatory disorder associated with increased CCTG repeats in the PSTPIP1 gene promoter and characterized by TNF-α and IL-1 overexpression. It presents as a triad of pyoderma gangrenosum (PG), acne and hidradenitis suppurativa (HS). Aimed to present an unique case of PASH syndrome in a hospitalized female patient with severe PG and HS manifestations successfully treated with the IL-36 receptor inhibitor spesolimab. This case, the first of its kind worldwide, highlights the therapeutic potential of spesolimab in refractory PASH syndrome and underscores the need for further investigation into this novel treatment approach.

Materials & Methods:

Woman with a history of severe acne and chronic HS presented with a rapidly progressing ulcer on the left lower leg, diagnosed as pyoderma gangrenosum. This symptom triad led to the diagnosis of PASH syndrome. Initial management with dexamethasone, cyclosporine, clindamycin and rifampicin provided only transient symptom relief. Also, the authors conducted research in PubMed database on PASH syndrome in order to identify and evaluate the efficacy of all described therapeutic methods for PASH syndrome. Searching was as broad as possible from the inception of the database until November 2024, including EMTREE and MESH approaches, conducted according to the PRISMA guidelines.

Results:

Enrolment in a clinical trial of spesolimab resulted in complete remission of PG and significant improvement in HS and acne with sustained remission observed for 1.5 years. Spesolimab is an emerging treatment and thus its long-term effects remain unknown. Further studies are essential to assess its long-term safety and to establish a new therapeutic option.

Conclusion:

PASH syndrome exhibits recurrent flares and a complex clinical course, often with reduced treatment efficacy over time. Spesolimab, by targeting IL-36-mediated inflammation, demonstrates potential as a targeted and highly effective treatment addressing all three constituent diseases of the rare PASH syndrome.

Abstract N°: 267

Autoimmune Thyroiditis in Hidradenitis Suppurativa Patients in Crete: A Comparative Study

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition marked by painful nodules and abscesses, often accompanied by comorbidities such as metabolic syndrome, cardiovascular disease, and autoimmune disorders. Hashimoto's thyroiditis, a leading cause of hypothyroidism in regions with sufficient iodine levels, is an autoimmune thyroid disorder characterized by the presence of thyroid autoantibodies. Emerging evidence highlights a potential link between HS and Hashimoto's thyroiditis, possibly due to shared inflammatory and immune pathways. This study aimed to evaluate the prevalence of Hashimoto's thyroiditis in HS patients compared to healthy controls (HC) and examine the relationship between Hashimoto's thyroiditis and HS severity in Heraklion, Crete.

Materials & Methods: A cross-sectional, retrospective study was conducted at the University Hospital of Heraklion's Dermatology Department from January 2021 to January 2025. The study included HS patients and age- and gender-matched HC. Data collected encompassed demographics, clinical history, and laboratory results, including thyroid function and autoantibody levels. HS severity was evaluated using the Hurley stage, International Hidradenitis Suppurativa Severity Score System (IHS4), and Hidradenitis Suppurativa Physician Global Assessment (HS-PGA). Statistical analysis involved t-tests, Chi-square tests, and linear regression.

Results: The study analyzed 160 HS patients and 160 matched HC. The prevalence of Hashimoto's thyroiditis was higher in HS patients (14.4%, 23/160) compared to HC (9.4%, 15/160) ($p = 0.00$). Among HS patients, greater disease severity was significantly associated with Hashimoto's thyroiditis, as reflected in the Hurley stage ($p = 0.021$) and HS-PGA scores ($p = 0.042$). Additionally, smoking status ($p = 0.003$) was linked to Hashimoto's thyroiditis in the HS group.

Conclusion: Patients with HS exhibit a higher prevalence of Hashimoto's thyroiditis than HC, with disease severity and smoking status contributing to this association. These findings highlight the need for thyroid function screening in HS patients, especially those with severe symptoms or a history of smoking, to enhance patient management.

Abstract N°: 305

Efficacy of Dapsone in the Treatment of Rosacea: a systematic review

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Introduction & Objectives:

Rosacea is a chronic inflammatory skin condition of the face, that severely impairs patients' quality of life. Rosacea is classified into four subtypes based on its clinical presentation: erythematotelangiectatic (ETR), papulopustular (PPR), phymatous (PHY), and ocular (OR). Treatment differs depending on the clinical subtype. Despite advances in the treatment of other inflammatory skin diseases, there has been little research into new rosacea. Recent studies have demonstrated the efficacy of topical dapsone in the treatment of acne vulgaris. Dapsone, which was first used in the 1940s to treat leprosy, is now used to treat a variety of dermatological diseases. The aim of this review is to evaluate the efficacy of dapsone in the treatment of rosacea.

Materials & Methods:

The research was conducted following the PRISMA guidelines. We search for English-language articles published in PubMed, Scopus, and Web of Science databases up to January 2025, using keywords such as "rosacea" and "dapsone". The review focused solely on original studies, case reports, and case series. A total of 229 records were found, 71 of which were eliminated prior to screening. 127 reports were excluded due to irrelevance to the topic or lacked full-text publications, while 24 were excluded as they did not meet the research question category. Finally, seven studies were included in the systematic review.

Results:

Three studies, including 123 participants, evaluated the efficacy of dapsone gel in treating rosacea during a 12-week period.

In study by Faghihi et al., 5% dapsone gel was used in individuals with PPR, resulting in significant reductions in inflammatory lesions (from 15 to 11.1), IGA scores (from 3.9 to 3.3), and VAS scores (from 6.6 to 5.7). No significant differences were found between the dapsone and metronidazole groups. Scaling and pruritus were common adverse effects in the dapsone treatment group.

In study by Gökşin et al., patients with ETR received 5% dapsone gel. Baseline IGA scores of 2, 3, and 4 were seen in 62.9%, 34.3%, and 2.9% of patients, respectively. After 12 weeks, 62.9% of patients achieved an IGA score of one, 37.1% achieved an IGA score of two, and none had a score of three or above. The median VAS and DLQI scores improved significantly (VAS from 7 to 4; DLQI from 8 to 4). Itching was reported by two patients and burning by one.

In study by Özkoca et al., patients with PPR were treated with 7.5% dapsone gel, resulting in progressive reductions in mean lesion counts (22.10 ± 8.95 at baseline to 3.87 ± 3.76 at week 8) and mean IGA scores (3.06 ± 0.81 to 0.74 ± 0.73). There were no side affects reported.

Four case reports examined the effectiveness of oral dapsone in treating rosacea in patients who had no responded to prior treatments. Two cases of rosacea fulminans, one of granulomatous rosacea, and one of Morbihan disease were reported. Dapsone was provided in doses ranging from 50 to 150 mg/day. Clinical improvement was seen in all patients. In three cases, treatment resulted in complete remission, with no recurrence seen over time.

Conclusion:

Dapsone gel is an effective, safe, and well-tolerated therapy for PPR and ETR. Oral dapsone has been shown to be an effective treatment choice for rosacea that is resistant to traditional therapy. However, randomized, multicenter studies with larger patient cohorts are required to thoroughly evaluate its efficacy in rosacea management, including its potential in treating various types of rosacea.

Abstract N°: 334

Reported Surgical Outcomes in Patients Treated with Deroofing for Hidradenitis Suppurativa: A Systematic Review

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Introduction & Objectives: Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease that significantly impacts quality of life (QoL). Deroofing, a minimally invasive surgical technique for Hurley stage II and III HS, removes sinus tract roofs to promote stable scars. This review evaluates deroofing outcomes to consolidate evidence on its efficacy.

Materials & Methods: A systematic search of Medline, Embase, Scopus, and Cochrane Library identified studies reporting deroofing outcomes for HS. Twelve studies were included, with data extracted on sample size, QoL, wound healing, satisfaction, recurrence, and complications.

Results: Sample sizes ranged from 1–79 patients. QoL improved significantly, with Dermatology Life Quality Index reductions of up to 7 points. Satisfaction rates reached 90%. Wound healing times ranged from days to a median of 4.4 weeks. Pain scores decreased postoperatively. Recurrence rates varied from 0–21%, with lower rates linked to complete excision of fibrotic tissue. Complications were minimal.

Conclusion: Deroofing is a safe, effective surgical intervention for HS, improving QoL and reducing recurrence.

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Abstract N°: 336

Efficacy and Safety of a Spray Containing Retinol and Hydroxypinacolone Retinoate Encapsulated in Glycospheres, Salicylic Acid, Glycolic Acid, and Niacinamide Versus Vitamin A Acid 0.025% Lotion for the Treatment of Mild to Moderate Truncal Acne in Patients Treated with Doxycycline: A Randomized Control Trial

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Introduction & Objectives: Truncal acne presents unique therapeutic challenges and significantly impacts quality of life. This study evaluated a novel spray formulation containing encapsulated retinol, hydroxypinacolone retinoate, antimicrobial peptide, niacinamide, salicylic acid, and glycolic (RB+NSG) acid compared to Vitamin A acid (VAA) 0.025% lotion in treating mild to moderate truncal acne. We assessed efficacy, biophysical parameters, quality of life outcomes, and tolerability of both treatments when combined with oral doxycycline.

Materials & Methods: This randomized, assessor-blinded clinical trial enrolled 50 patients (age 18-45) with mild to moderate truncal acne. Participants were randomized to receive either twice-daily RB+NSG spray or nightly VAA 0.025% lotion for 12 weeks, with both groups receiving oral doxycycline 100 mg twice daily. The primary outcome was lesion count reduction. Secondary endpoints included skin surface lipid levels (SSL), pigmentation parameters (L* values, ITA, melanin index), erythema (hemoglobin levels), Dermatology Life Quality Index (DLQI), Patient Satisfaction Scores (PSS), and adverse effects.

Results: Forty-eight participants completed the 12-week study. The RB+NSG spray demonstrated non-inferiority to VAA lotion in total lesion count reduction (non-inferiority margin of 5; Figure 1). Both groups achieved significant reductions from baseline (RB+NSG: -26.8, VAA: -18.1; $p<0.01$; Figure 2). RB+NSG showed superior improvements in DLQI (-7.7 vs -5.0; $p=0.002$) and PSS (13.0 vs 11.0; $p=0.012$). No significant between-group differences were observed in biophysical parameters. While the RB+NSG group experienced higher rates of erythema (83.3% vs. 29.2%), it demonstrated a significantly lower incidence of dryness (12.5% vs. 54.2%) compared to VAA.

Conclusion: When combined with oral doxycycline, RB+NSG spray demonstrates comparable clinical efficacy to VAA lotion for treating truncal acne. It offers superior quality of life, satisfaction outcomes, and a favorable tolerability profile. These findings suggest that RB+NSG spray may be a therapeutic alternative for truncal acne.

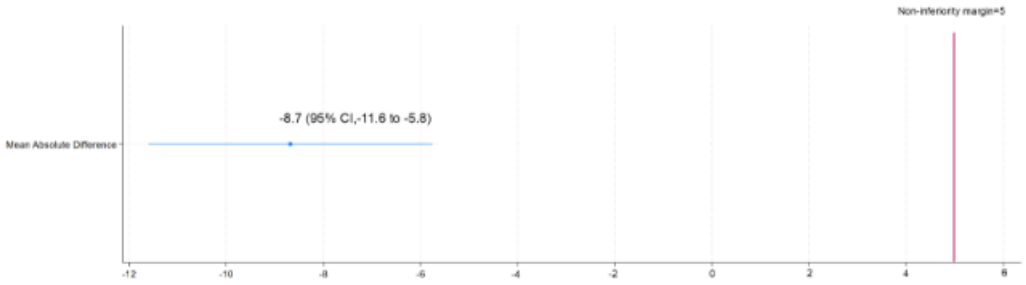

Figure 1 Forest plot of mean absolute difference of overall total acne lesion count. The figure shows the mean absolute difference from the baseline of -8.7 of overall total acne lesion counts in RB+NSG spray compared to the VAA group. The non-inferiority margin was set at 5.

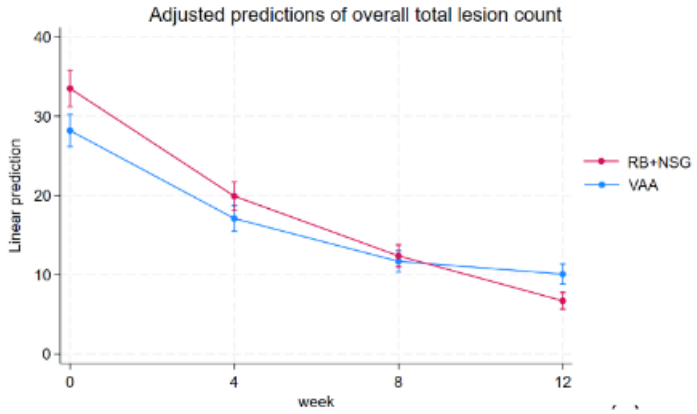

Figure 2 Adjusted predictions of overall total lesion count comparing RB+NSG spray versus VAA lotion. Both groups showed decreasing trends, with RB+NSG demonstrating a greater reduction by week 12.

Abstract N°: 340

The importance of assessing mites of the genus Demodex in the clinical course of rosacea.

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Introduction & Objectives: Identification of the characteristics of the course of rosacea in the presence of mites of the genus Demodex is, on the one hand, of great theoretical interest, and on the other hand, has practical significance, determining new directions for the treatment of this disease.

Objective of the study: Evaluation of microscopic Demodex mites in the clinical course of rosacea.

Materials & Methods: . In total, we examined 116 patients with various clinical forms of rosacea aged from 31 to 67 years. According to gender, 77 were female and 39 were male. Clinical assessment of the severity of erythema and hyperemia in patients with rosacea was measured based on the Rosacea Diagnostic Assessment Scale (RDAS) index, the elements of which are: the prevalence of lesions, expressed in %; objective (papules, pustules, erythema, telangiectasia, edema, ophthalmic rosacea) and subjective manifestations (burning and tingling of the skin). All patients underwent clinical, bacterioscopic, and statistical studies.

Results: In patients with rosacea, the detection of the mite Demodex folliculorum on the skin of the lesions was 68.1% of cases. According to the species identification, Demodex folliculorum longus was detected in 64.5% and Demodex folliculorum brevis in 35.4%. The mite Demodex folliculorum longus was most often detected in patients with the papulopustular form - 54.9%, and with the erythematous form - 23.5% and with the pustular-nodular form - 21.6%, respectively. Whereas Demodex folliculorum brevis in 60.7% - in patients with the papulopustular form and 39.3% - in patients with the erythematous form of rosacea. Taking into account the severity according to the SHOD index, Demodex folliculorum brevis was most often isolated in patients with a mild severity, and Demodex folliculorum longus - in moderate and severe severity (55% and 93.5%), respectively.

According to research, demodex contributes to the development and maintenance of the pathological process, accompanied by a violation of symbiosis with opportunistic microflora, which is a trigger factor for the aggravation of the process. Moreover, the correlation analysis of the quantitative assessment of Demodex folliculorum revealed a positive correlation with the pathogenic flora st.aureus - r = +0.5, and was statistically significant.

Based on clinical and laboratory studies, a diagnostic assessment of the quantitative characteristics of the demodex mite on the skin has been developed. Thus, the quantitative assessment is normally estimated for males up to 3 units, while for females – up to 4. When a tick is detected, 4-5/ or 5-6 units of a tick, taking into account gender, characterizes a light degree of quantitative assessment, 6-8/ 7-9 units – a medium degree, and more than 9 units – a high degree of quantitative characteristics of the result of native material.

Conclusion: Thus, Demodex folliculorum plays a significant role in the pathogenesis and clinical course of rosacea. Evaluation of the quantitative characteristics of Demodex folliculorum represents important information for monitoring the therapy.

Abstract N°: 399

Isotretinoin plus 420 nm intense pulsed light versus isotretinoin alone for the treatment of acne vulgaris: a randomized controlled study

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Introduction & Objectives:

Isotretinoin is one of the most effective treatments for acne vulgaris. However, systematic isotretinoin may be associated with slow action, inadequate responses, and possible severe adverse events (AEs). Intense pulsed light (IPL) has been reported to alleviate acne successfully as monotherapy or combined therapy with topical agents. The IPL combined therapy with systemic medication, especially with retinoids, has rarely been reported. In this randomized controlled study, we aimed to compare the efficacy, safety, and patients' satisfaction of isotretinoin plus 420 nm IPL combined treatment for facial acne vulgaris with isotretinoin monotherapy in Chinese patients.

Materials & Methods:

Isotretinoin is one of the most effective treatments for acne vulgaris. However, systematic isotretinoin may be associated with slow action, inadequate responses, and possible severe adverse events (AEs). Intense pulsed light (IPL) has been reported to alleviate acne successfully as monotherapy or combined therapy with topical agents. The IPL combined therapy with systemic medication, especially with retinoids, has rarely been reported. In this randomized controlled study, we aimed to compare the efficacy, safety, and patients' satisfaction of isotretinoin plus 420 nm IPL combined treatment for facial acne vulgaris with isotretinoin monotherapy in Chinese patients.

Results:

The patients in study group experienced significant reduction in GEA grade, total lesions, and inflammatory lesions on week 12, compared with control group ($p<0.05$). In the study group, the effective rate for total lesions, inflammatory lesions, and non-inflammatory lesions reduction was 79.2%, 79.2%, and 56.5%, respectively. In the control group, the effective rate for total lesions, inflammatory lesions, and non-inflammatory lesions reduction was 65.2% ($p<0.01$ vs. the study group), 56.5% ($p<0.01$ vs. the study group), and 52.2%, respectively. No significant difference was noticed in the non-inflammatory lesions reduction between the two groups. The patients in the study group reported lower DQLI ($p<0.05$) and higher satisfaction VAS ($p<0.05$), and experienced lower incidence of relapse ($p<0.05$). More patients in the study group reported "erythema relieved" and "lightening of skin tone", compared with the control group ($p<0.05$). For both groups, regular laboratory test monitoring liver transaminases and serum lipids revealed no abnormality. No severe AEs were reported or identified for both groups.

Conclusion:

The isotretinoin plus 420 nm IPL combined treatment had a positive effect that was statistically and clinically significant in terms of acne vulgaris alleviation, compared with the isotretinoin monotherapy. Other major advantages included lightening basic skin tone and relieving erythema. It achieved clinical improvement within limited treatment duration, and may have a particularly beneficial effect in patients who expect a rapid remission.

Abstract N°: 441

Special Considerations for Hidradenitis Suppurativa in Skin of Color: A Review of Literature

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition that disproportionately affects individuals with skin of color (SOC), particularly African Americans, with prevalence rates 2.0-3.1 times higher than in white patients. Despite this increased prevalence, racial minorities remain underrepresented in clinical trials. This review aims to analyze and synthesize current literature regarding the clinical presentation, comorbidities, healthcare utilization patterns, and management of HS in SOC individuals to identify key disparities and areas requiring focused intervention.

Materials & Methods:

A comprehensive literature search was conducted using MEDLINE (PubMed) in March 2024, utilizing keywords including “hidradenitis suppurativa,” “comorbidities,” “skin of color,” “African-American,” “Hispanic,” and “quality of life.” Studies published between 2014-2024 were included if they reported data on epidemiology, clinical presentation, comorbidities, disease severity, healthcare utilization, or management of HS in SOC populations. Additional relevant studies were identified through reference list screening of included articles.

Results:

Our review revealed disparities in disease severity and healthcare utilization among SOC patients. African American patients demonstrated 2.9 times higher emergency department utilization and 2.3 times higher hospitalization rates compared to Caucasian patients. Hispanic patients showed the highest average outpatient visits (7.2) compared to African American (5.2) and Caucasian patients (4.7). Disease severity was notably higher in SOC patients, with Hispanic and African American patients averaging higher Hurley scores (2.3 and 2.0, respectively) versus Caucasian patients (1.9). African American patients showed 2.8 times higher likelihood of developing severe HS (Hurley Stage III) and 1.6 times higher rates of surgical interventions. Specific comorbidity patterns emerged, with African American patients showing higher rates of inflammatory bowel disease-HS comorbidity (46.8%) and anemia (60.6% of HS-anemia cases). Review of clinical trials revealed underrepresentation of SOC patients, with 14.0% of participants being of African descent and minimal representation of other ethnic minorities.

Conclusion:

This review highlights disparities in HS presentation, severity, and management among SOC patients, particularly affecting African American and Hispanic populations. Critical gaps exist in research regarding other ethnic minorities within the SOC population. Addressing these disparities requires focused interventions, developing tailored healthcare policies, and ensuring more inclusive clinical research initiatives. Future research should prioritize broader ethnic representation to better understand disease burden and treatment efficacy across diverse populations.

Abstract N°: 456

nitric oxide-releasing topical gel for the management of moderate-to-severe acne vulgaris: a meta-analysis.

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Introduction & Objectives:

Acne vulgaris, a common inflammatory skin disorder, poses physical and psychological challenges for millions worldwide. This systematic review and meta-analysis investigate the promise of a nitric oxide-releasing topical gel as a potential acne treatment.

Materials & Methods:

This systematic review and meta-analysis will assess the efficacy and safety of a nitric oxide-releasing (NO) topical gel 4% in treating adult acne vulgaris. Randomized Controlled Trials (RCTs) comparing NO gel to vehicle gel will be included. Outcomes of interest include inflammatory and non-inflammatory lesion counts, Investigator's Global Assessment (IGA) score, and adverse events (Application site-related). Mean difference (MD) will be used to pool continuous outcomes, while Risk Ratio (RR) will be used to pool dichotomous outcomes. Random-effects meta-analyses will be performed for quantitative synthesis. The risk of bias assessment will be conducted using the Revised Cochrane risk of bias tool for randomized trials. The certainty of the evidence will be assessed using the GRADE approach.

Results:

Three studies were included in our meta-analysis. NO gel showed a significant reduction in inflammatory (MD=-1.72, 95% CI [-2.65, -0.79], P=0.0003, I2=18%) and non-inflammatory (MD=-2.64, 95% CI [-3.83, -1.44], P<0.0001, I2=0%) lesion count but caused no difference in the number of patients with improved IGA (RR=1.18, 95% CI [0.90, 1.55], P=0.24, I2=39%) at 12 weeks. Safety-wise, NO caused a superior incidence of pain (RR=4.78, 95% CI [2.12, 10.79], P=0.0002, I2=0%) while it showed a similar effect to placebo with regards to dryness (RR=2.63, 95% CI [0.73, 9.46], P=0.14, I2=0%) and erythema (RR=4.07, 95% CI [1.03, 16.03], P=0.05, I2=35%).

Conclusion:

In brief, the 4% nitric oxide-releasing topical gel effectively reduces acne lesions in adults with acne vulgaris, displaying promise despite limited IGA improvement. Safety analysis indicates a modestly increased pain incidence, with dryness and erythema similar to placebo, implying an overall favorable safety profile, necessitating further comprehensive research for confirmation.

Abstract N°: 468

Mouse Skin-derived Precursor Exosomes Alleviate Acne Vulgaris Inflammation through TLR2/MyD88/NF-κB Signaling Pathway

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Introduction & Objectives:

Clinical studies revealed that alleviation of inflammation reaction was effective for acne treatment. Our previous studies implied that mouse skin-derived precursors (mSKPs) might regulate immunological reaction and inflammation via TLR signaling pathway. We also found mSKPs exosomes (mSKPs-exo) inhibited the gene expression of TLR2 and MyD88 in the mouse mononuclear macrophages challenged by *C. acnes*. The research aimed to investigate the effects of mSKPs-exo on acne inflammation and TLR2/MyD88/NF-κB pathway both *in vitro* and *in vivo*.

Materials & Methods:

mSKPs-exo was obtained by ultra-high speed centrifugal method. The mouse mononuclear macrophage Raw264.7 inflammatory model was established by co-culture with *C. acnes*. The intake of PKH67-mSKPs-exo by Raw264.7 was demonstrated by immunofluorescence. The concentration of nitric oxide (NO), TNF-α, and IL-6 in the supernatant was measured by ELISA. The NF-κB p65 nuclear translocation experiment was performed by immunofluorescence. The M1/M2 phenotype of Raw264.7 was analyzed with flow cytometry. The gene and protein level of TLR2, MyD88, IκBα, p-IκBα, cytoplasmic NF-κB p65, and nuclear NF-κB p65 were analyzed, respectively. The anti-inflammation effects of mSKPs-exo were investigated in male SD rat auricular acne model as well.

Results:

Immunofluorescence confirmed the intake of 10 μg/mL mSKPs-exo after co-culture with Raw264.7 for 6 hours. Raw264.7 inflammation model was built by co-cultured with1.5×108 CFU/mL *C. acnes* for 4 hours. Either co-culture or pre-treatment with 20μg/mL mSKPs-exo significantly reduced NO in Raw264.7 supernatant challenged by *C. acnes* at 6 and 12 hours (p<0.05). Pre-treatment with 5, 10, and 20μg/mL mSKPs-exo significantly reduced TNF-α and IL-6 in Raw264.7 supernatant challenged by *C. acnes* (p<0.05). Immunofluorescence demonstrated that compared with mSKP-exo-/*C. acnes*+, 10μg/mL mSKPs-exo pre-treatment (mSKP-exo+/*C. acnes*+) significantly inhibited NF-κB p65 nuclear translocation (p<0.05). Flow cytometry reveal that compared with mSKP-exo-/*C. acnes*+, 10μg/mL mSKPs-exo pre-treatment (mSKP-exo+/*C. acnes*+) significantly reduced the expression of CD86 and iNOS, and hence the proportion of M1 phenotype macrophage (p<0.05). Both quantitative PCR and WB indicated that compared with mSKP-exo-/*C. acnes*+, 10μg/mL mSKPs-exo pre-treatment (mSKP-exo+/*C. acnes*+) significantly inhibited the gene and protein expression of TLR2, MyD88, p-IκBα, and nuclear NF-κB p65 (p<0.05). The in vivo studies suggested that 500μg, 1mg, and 2mg mSKPs-exo intradermal injection twice per week ameliorated the rat auricular acne inflammatory reactions effectively and safely. Histologically the mSKPs-exo treatment alleviated epidermal hyperkeratosis, dermal inflammatory cell infiltration, and vasodilation. Based on immunohistochemistry and WB, the expression of TLR2, MyD88, TNF-α, and IL-6 also significantly decreased with mSKPs-exo treatment (p<0.05).

Conclusion:

We isolated and identified mSKPs-exo, and explored the biological characteristics. Our research revealed that mSKPs-exo significantly alleviated acne inflammation both in vitro and in vivo by regulating key factors in TLR2/MyD88/NF-κB signaling pathway. The current study provided data concerning TLR2 signaling pathway investigation. The findings contributed to the identification of potential new targets and methods for acne treatment.

Abstract N°: 486

Acne and Seasonal Variation

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Introduction & Objectives:

Acne is a chronic inflammatory condition of the pilosebaceous follicle that primarily affects adolescents. It is a multifactorial disease, and its severity can vary based on several factors such as stress, diet, climate, and seasonality. The aim of our study is to evaluate the variations in acne severity according to seasonal changes in patients treated in our department.

Materials & Methods:

For this study, we included patients treated in our department for acne vulgaris during the period from January 2022 to January 2025. To minimize potential biases, only patients who had not received prior treatment were included. Sociodemographic data were collected through patient interviews. The clinical severity of acne was assessed using a standard scale, classifying patients into mild, moderate, and severe acne. Seasonal variations in acne severity were evaluated using this scale (patients were shown representative images of different levels of acne severity to help them assess changes based on climatic conditions). The analytical study was conducted using the Chi-square test or Fisher's exact test to compare qualitative variables. A p-value of <0.05 was considered statistically significant.

Results:

We included a total of 142 patients, of whom 100 were men (70.42%) and 42 were women (29.58%), with a mean age of 22.5 ± 3.2 years. 70.42% of the patients were students. The mean duration of acne evolution was 2.84 ± 2.58 years. Moderate acne was the most common form (55.63%, or 79 patients), followed by severe acne (34.51%, or 49 patients) and mild acne (9.86%, or 14 patients). Only 26.41% of the patients (38 patients) used sunscreen.

44.37% of the patients (63 patients) did not report any variation in acne severity with seasonal changes, while 55.63% of the patients (79 patients) reported a change. Among these: 47.78% (37 patients) reported worsening acne during summer only (62.16% men, or 23 patients, vs. 37.84% women, or 14 patients), 22.22% (18 patients) reported worsening during autumn (55.56% men, or 10 patients, vs. 44.44% women, or 8 patients), and 30.00% (24 patients) noted worsening during both seasons (55% men, or 13 patients, vs. 45% women, or 11 patients).

A statistically significant association was observed between acne worsening and summer ($p = 0.03$).

Conclusion:

Seasonal variations play a significant role in the progression of acne, with notable exacerbations in summer and winter and improvements during spring and autumn. A deeper understanding of these seasonal influences allows for the adaptation of therapeutic and preventive strategies, thereby optimizing the clinical management of acne throughout the year.

Abstract N°: 510

Acne and Quality of Life: A Study of 100 Cases

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Introduction: Acne is a chronic inflammatory disorder of the pilosebaceous follicle, characterized by recurrent flare-ups. It is one of the most common reasons for dermatological consultations, particularly among adolescents.

This study aims to define the epidemiological and clinical profile of acne patients consulting at the Hospital, assess their quality of life (QoL) using the CADI questionnaire, and identify factors affecting their QoL.

Materials and Methods: A cross-sectional study conducted over one year, including all patients with acne lesions who agreed to complete the CADI questionnaire during their consultation. Data collected included sociodemographic, clinical, and therapeutic variables, along with the impact on QoL. Two evaluation tools were employed: a clinical assessment scale and the CADI questionnaire, validated in Moroccan dialect.

Results: A total of 100 cases were analyzed, with a predominance of patients at middle to high school education levels (63%). The male-to-female ratio was 1.1, and 54% of patients were aged between 18 and 25 years at the time of consultation. Mild acne (grade 2) was the most frequent presentation, observed in 50% of cases.

Regarding quality of life, the average CADI score was 8.07, indicating a QoL impairment of 53%. Significant correlations were found between acne and reduced QoL, particularly among women ($p = 0.007$), patients with mixed ($p = 0.002$) or inflammatory acne ($p = 0.01$), those with advanced severity grades ($p = 0.04$), and those with scarring lesions ($p = 0.0000006$).

Patients treated with isotretinoin reported less QoL impairment, highlighting a positive correlation between treatment and improved well-being.

Discussion: Acne is a common dermatological condition, especially among adolescents and women, with a significant impact on quality of life. However, few studies have explored this aspect in depth. Our results indicate that acne profoundly affects patients' QoL, influenced by factors such as lesion severity, scarring, and associated psychological dimensions. The use of the CADI questionnaire helps quantify these effects and emphasizes the need for tailored management to enhance patients' well-being.

Conclusion: Our study highlights the significant impact of acne on patients' QoL, particularly among women and those with scars. Clinicians must consider these aspects in their management plans by developing tools to better assess and address the psychosocial consequences of this condition.

Abstract N°: 547

Cancer risk in hidradenitis suppurativa patients treated with TNF-alpha inhibitors

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Introduction & Objectives: The association between TNF-alpha inhibitors and cancer risk remains a topic of ongoing debate. Previous studies have primarily focused on patients with psoriasis treated with TNF alpha inhibitors, yielding inconclusive findings. No large-scale, population-based studies have comprehensively assessed this association in hidradenitis suppurativa (HS) patients. Given the inherently increased risk of cancer among individuals with HS, further investigation is of critical importance.

Materials and Methods: A national retrospective cohort study categorized HS patients into two groups: TNF-alpha inhibitor treatment (n=458) and non-biologic therapy (n=12,590). Survival was analyzed using the Kaplan-Meier estimator and Log-Rank test (P=0.05). Stepwise Cox regression identified cancer risk factors.

Results: Cancer risk was comparable between groups (HR 0.88; 95% CI 0.48-1.62; P=.684). The median follow-up was 61.93 months, with no significant survival difference between groups based on Kaplan-Meier and Log-Rank test results. Cancer was associated with diagnosis age, smoking, family history of malignancies, and comorbidities including ischemic heart disease, chronic obstructive pulmonary disease, and cirrhosis.

Conclusion: Over a mean follow-up of 61.93 months, TNF-alpha inhibitor treatment in HS patients was not associated with an increased cancer risk**.**

Abstract N°: 555

Recommendations of Antibiotics in HS : Current Practice of Antibiotics Treating HS in a Developing Country with Limited Health Care Facilities

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Introduction & Objectives:

Hidradenitis suppurative (HS), also known as Acne inversa is a chronic, recurrent, and inflammatory skin disease characterized by painful, deep-seated, nodules, abscesses, and sinus tracts affecting intertriginous areas including axillary, inguinal, and anogenital regions. Its pathogenesis remains elusive and is best characterized at the moment as multi-factorial. Additionally, questions remain about the role of cutaneous dysbiosis as a primary HS trigger or as a secondary perturbation due to HS inflammation. HS management remains a challenge due to a combination of multiple treatment options, lack of curative medical treatment, potential resistance of recommended antibiotics, and higher cost of biologics. There are many constraints to employing modern treatment techniques in a low income country, such as the availability of drugs, the expense of treatment, insufficient experts, and patient noncompliance with treatment. Role of bacteria in HS pathogenesis, microbiome dysbiosis, biofilms in HS disease, role of antibiotics in HS, recommendations of antibiotic use in treatment algorithm in different guidelines, and the current practice of antibiotics treating hidradenitis suppurativa in our country with limited health care resources is addressed in this present study.

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 targeted mainly prescribing patterns based on their regular clinical practices. The data has been collected through both online and in-person interviews.

Results: ** There is heterogeneity in antibiotic prescription and practice variation exists between prescribed antibiotics & recommended antibiotics in HS guidelines. The study found that topical with systemic antibiotics was 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%), and unavailability (46.6%) of rifampicin in the drugstores This study also summarizes the most significant current issues on the role of systemic antibiotics in the management of HS, critically analyzing the main limits of their use (antibiotic resistance and toxicity).

Conclusion:

HS is considered an immune-mediated and not a primary infectious disease. Despite this, antibiotic therapy remains one of the available therapeutic weapons in HS & represents the first-line pharmacological treatment of HS because of its anti-inflammatory properties and antimicrobial effects. Topical clindamycin 1%, Systemic Tetracycline, Doxycycline, Minocycline, Clindamycin, a combination of Clindamycin & Rifampicin, a combination of Rifampin, Moxifloxacin, and Metronidazole, Dapsone, Lymecycline, I/V Ertapenem have been recommended in most of the HS guidelines. Selecting one among this wide array of antibiotics is challenging as a swab culture is not helpful here. There is heterogeneity in antibiotic prescription and practice variation exists between prescribed antibiotics & recommended antibiotics in HS guidelines.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 573

Combination Therapy with Fat Micrografts and Ablative Lasers in the Treatment of Atrophic Acne Scars

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Abstract

Introduction & Objectives: Atrophic acne scars significantly impact patients' quality of life, necessitating effective treatment strategies. While ablative lasers remain a cornerstone of acne scar management, their outcomes may be enhanced by regenerative therapies such as platelet-rich plasma (PRP) and fat micrografts. This study aims to evaluate the efficacy and safety of combination therapy involving fat micrografts and ablative laser treatment for atrophic acne scars.

Materials & Methods: A systematic literature review was conducted according to PRISMA guidelines, analyzing studies published between 2010 and 2024 in PubMed, Scopus, and Web of Science. Included studies assessed regenerative therapies such as fractional CO_2 laser, and autologous fat grafting. Additionally, we enriched the review with a case series from our clinical practice, involving three patients treated with subcision, nanofat grafting, and dual-wavelength laser therapy. Treatment outcomes were evaluated using standardized clinical photography, subjective patient satisfaction scales, and objective skin assessments.

Results: The reviewed studies demonstrated that combination therapy incorporating nanofat grafting and fractional ablative laser resulted in improved skin texture, elasticity, and collagen remodeling compared to monotherapy. In our case series, all patients exhibited visible scar reduction and overall skin quality enhancement. Patient satisfaction was high, with no major adverse events reported. The most notable improvements were observed in rolling and boxcar scars. However, treatment efficacy varied based on individual skin characteristics and scar severity.

Conclusion: The integration of fat micrografts with fractional CO_2 laser therapy appears to enhance atrophic acne scar treatment outcomes. Our review and case series highlight the potential benefits of this combined approach, emphasizing improved skin regeneration and patient satisfaction. Despite promising results, further large-scale studies with longer follow-up are required to establish standardized protocols and long-term efficacy.

Abstract N°: 641

Evaluation of the efficacy of Fractional Erbium YAG Laser in combination with botulinum toxin A for treatment of Atrophic Acne Scars

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Evaluation of the efficacy of Fractional Erbium YAG Laser in combination with botulinum toxin A for treatment of Atrophic Acne Scars

Introduction & Objectives:

Atrophic scars are caused by deficiency of collagen due to impaired healing process. They are categorized into three types: ice-pick, rolling, and boxcar scars.

laser treatments, peeling and fillers are common managing for this scars.

Fractional erbium-yttrium aluminum garnet (YAG) 2940 nm laser have been used in treating acne scars.It induces collagen production with minimal recovery.

The botulinum toxin A decreases muscular forces around the scar. It causes temporary paralysis of the muscles allowing time for collagen maturation.Other mechanism is negative effect of botox on the transformation of fibroblast by transforming growth factor-β1 (TGF-β1).Better wound healing are known to be the benefits of BTA.In this study we evaluate the combination therapy effect of laser and Botulinum toxin on Atrophic acne scars.

Materials & Methods:

60 patients were included in this trial and randomized into three equal groups (20each). Group A was subjected to 3 sessions of erbium-YAG laser for 3 months, group B was treated with 3 sessions of botulinum toxin A (BTA) over the same period, and group C was subjected to 3 sessions of erbium-YAG laser plus 3 sessions of BTA . Each subject was evaluated 1 and 3 months after last session by photography, clinical evaluation and patients satisfaction.

Laser(Fractional Erium-YAG Sciton)applied on the entire face.

Dysport (abobotulinumtoxin A) was dissolved at 300 units/vial in 2 cc of normal saline that was drawn into a BD luer lock syringe and diluted five times and then injected intradermally under the scars.

Physicians assessed the grade of improvement by comparing photographs on a four-point scale as grade 4 (> 75%) = excellent, grade 3 (51–75%) = marked, grade 2 (26–50%) = moderate, and grade 1 (0–25%) = minimal improvement.

Patient satisfaction was recorded on a four-point scale as grade 4 (highly satisfied), grade 3 (satisfied), grade 2 (neutral), and grade 1 (dissatisfied).

Results:

The mean age of individuals was 38.62 ± 2.45. 42 patients were female (70%), and 18 patients were male (30%).

The mean duration of their acne scars was 8.5± 2.1

Both treatment modalities regrading clinical assessment showed improvement of acne scars, but the improvement with combined treatment was better than that with erbium-YAG laser or BTX regarding scar grade improvement (P = 0.005 and

0.001)

With considering patients satisfaction,Combination and laser group had improvement. (P = 0.002 and 0.001), respectively. Also, patients treated with Er-YAG laser showed more marked improvement than those treated with BTX (P : 0.002)

There were no statistically significant differences between the study groups regarding any of the posttreatment complications

Conclusion:

Both BTX and fractional Er-YAG laser were effective for treatment of acne scars, but their combination was found to be better result in comparison with one treatment alone.

Keywords: Acne scars, Erbium-YAG laser, Botulinum Toxin A

Abstract N°: 756

Enhancing Healing in Hidradenitis Suppurativa with Tobacco Pouch Suture after CO2 Laser Excision Treatment

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disorder requiring surgical intervention in advanced stages. While CO_2 laser excision is an effective method for debulking affected areas, optimizing post-excisional wound healing remains challenging. We report a case utilizing an innovative application of the tobacco pouch suture technique as a simple yet effective adjunct to enhance wound healing and reduce healing time after CO_2 laser excision in severe HS.

Materials & Methods:

A 35-year-old male with Hurley Stage III HS of the left axilla, refractory to medical therapies, underwent CO_2 laser excision. Guerbet blue patent staining was used to delineate sinus tracts, and both continuous (2–5W) and SmartPulse (30–45W) modes of the DEKA CO_2 laser were applied. Following tissue removal, a tobacco pouch suture with 3-0 prolene was placed circumferentially to approximate wound edges and reduce tension, aiming to accelerate granulation and re-epithelialization. Postoperative care included antiseptic gauzes and collagen-based dressings (Suprasorb C).

Results:

The tobacco pouch suture led to rapid granulation tissue formation with suture removal after one week due to early healing progression. Complete re-epithelialization occurred within two weeks, and at three months, the wound had healed with minimal scarring. The patient reported significant symptom relief and high satisfaction with the cosmetic and functional outcomes.

Conclusion:

The tobacco pouch suture technique represents a novel and effective adjunct to CO_2 laser excision in HS surgery, facilitating faster wound closure, reducing healing time, and improving surgical outcomes. This approach offers a valuable trick to enhance healing after CO_2 laser debulking, warranting further research to assess its broader applicability in HS management.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 763

Food for Thought: Understanding the Dietary Drivers of Acne

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Introduction & Objectives: Acne vulgaris is a prevalent skin condition affecting both adolescents and adults, with significant effects on quality of life. While the role of diet in acne development has been widely debated, recent research highlights dietary factors that may influence acne severity. This review aims to explore the relationship between diet and acne, focusing on key dietary components such as high glycemic index foods, dairy products, fats, vitamins, minerals, and probiotics.

Materials & Methods: A comprehensive review of current literature was conducted to assess the impact of various dietary components on acne. Studies examining the effects of glycemic index, dairy, fats, and essential nutrients (vitamins and minerals) on acne pathogenesis were included. Probiotic supplementation and dietary patterns (Western, Mediterranean, vegetarian, and vegan) were also explored for their potential influence on acne outcomes.

Results: High glycemic index foods and dairy products were found to exacerbate acne, primarily through insulin and IGF-1 elevation, stimulating sebum production and inflammation. Conversely, Mediterranean and anti-inflammatory diets appeared to offer protective benefits against acne. Key vitamins (A, C, D, E) and minerals (zinc, selenium, magnesium) were identified as beneficial in managing acne, supporting skin health and reducing inflammation. Probiotics demonstrated promise in restoring gut microbiota balance, which may help mitigate acne.

Conclusion: Diet plays a significant role in the development and management of acne, with certain foods potentially exacerbating or alleviating symptoms. Personalized dietary interventions, integrating anti-inflammatory foods and essential nutrients, may offer an adjunctive approach to conventional acne treatments. Future studies are needed to clarify the complex interactions between diet and acne for more targeted management strategies.

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 771

A brief analysis of frailty in Hidradenitis Suppurativa

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Introduction & Objectives:

Hidradenitis Suppurativa (HS) is a chronic condition of scarring nodules and abscesses, with high comorbidity burden. Frailty is a syndrome of decreased reserve, which causes disability independently of clinical disease and is associated with multimorbidity in all ages. Fried's widely used definition of frailty is three or more out of five indicators: weakness (reduced grip strength), slowness (gait speed), weight loss, low physical activity, and exhaustion (1). People with one or two indicators are classified "pre-frail". Prevalence of frailty and pre-frailty increases with multimorbidity and frailty is associated with increased mortality. To date, no research has analysed frailty in HS.

This study plans to assess frailty in HS using two validated scales; the SHARE-Frailty Instrument (SHARE-FI) (2) and Rockwood's Clinical Frailty Scale (CFS) (3), alongside demographics and comorbidities.

Materials & Methods:

Patients with HS at our tertiary dermatology clinic were invited to participate. Demographics, anthropometrics and SHARE-FI questions were completed by participants, with dynamometer-assessed grip strength. The researcher completed the Rockwood CFS. SHARE-FI score was then calculated using online SHARE-FI calculator.

Statistical analysis was performed using Spearman's rank correlation to assess strength and direction of relationships between HS severity, frailty scores, and anthropometric measures. Differences in frailty across Hurley stages were evaluated using the Kruskal-Wallis H-test. Statistical significance was $p<0.05$. Analyses were performed using SPSS v30.

Results:

In the first month, ten patients participated. Median age was 33.5 years and 70% were female. Body mass index ranged from 23.6-47.8, mean 33.94. Six participants reported comorbidities (*table 1).*

	Age	Gender	BMI	Hurley Stage	SHARE-FI (category)	Rockwood CFS	Comorbidities
1	63	Male	25.7	1	Non-frail	2	Renal cell carcinoma
2	23	Male	47.8	2	Non-frail	1	N/A
3	52	Female	27.3	2	Frail	4	Hypercholesterolaemia
4	34	Female	32	3	Pre-frail	3	Polycystic ovarian syndrome
5	47	Female	33.3	1	Non-frail	1	N/A
6	25	Female	47	2	Non-frail	2	Polycystic ovarian syndrome
7	33	Female	37.5	3	Pre-frail	2	N/A
8	41	Female	23.6	2	Frail	3	N/A
9	32	Female	36.8	1	Frail	2	Atopic dermatitis
10	28	Male	28.4	2	Pre-frail	1	Acne conglobata

Table 1

Lower weight was significantly associated with higher frailty, demonstrated by strong negative correlations with both Rockwood CFS ($r_s = -0.74, p < 0.05$) and SHARE-FI Score ($r_s = -0.67, p < 0.05$). Similarly, shorter stature was linked to greater frailty, with strong negative correlation observed between height and Rockwood Score ($r_s = -0.72, p < 0.05$).

For HS severity, moderate positive correlation was found between Hurley Stage and Rockwood CFS ($r_s = 0.34, p = 0.24$), and weak positive association was observed between Hurley Stage and SHARE-FI Score ($r_s = 0.18, p = 0.610$). This suggests that more severe HS may be associated with higher frailty scores. Neither were statistically significant, which may reflect trends that are limited by sample size.

Conclusion:

In a group of ten patients with HS, six were classified as pre-frail or frail using the validated SHARE-FI. A trend of increasing HS severity and frailty is observed. Early results also indicate the comorbidity burden in HS. This ongoing study may indicate those who would benefit from targeted interventions to minimise frailty in HS.

Abstract N°: 841

Efficacy and tolerance of a cream containing PHYLOBIOMA and AQUA POSAE FILIFORMIS in patients with mild acne.

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Introduction & Objectives:

Acne is a chronic disease. Four main aethiologiec factors involved in the pathogenesis of acne are: excessive sebum production, hyperkeratinization of pilosebaceous follicles, dysbiosis, and inflammation**.** Inflammation occurs at all stages of acne lesion development and is closely related with *C. acnes*. In acne, *C. acnes IA1* phylotype has a more virulent profile and may trigger further inflammation and tissue damage. Loss of *C. acnes* diversity contributes to TH17 immunity induction, promoting chronic inflammation in acne. Restoring balanced microbiome and *C.acnes* phylotypes diversity could be a promising therapeutic target. PHYLOBIOMA is a preservative-free and water-soluble powder, with complex of polyphenols and obtained from immature pericarp of pomegranates. PHYLOBIOMA attacts all 4 factors involved in pathogenesis of acne. AQUA POSAE FILIFORMIS suggests a beneficial effect on the commensal microbiome and immune defenses. To investigate this issue , we conducted a prospective, uncontrolled study with a cream containing PHYLOBIOMA and AQUA POSAE FILIFORMIS in patients with mild acne.

Materials & Methods:

The participants in the study were recruited between July and December 2024 among the outpatients of the Acne Clinic of Dermatovenereologic Department, Hospital of Jihlava, Czech Republic. Twenty patients were included in our single center, no-blind, and no controlled prospective study. Before, after 1 and after 2 months of treatment, acne severity assesed by counting of comedones and papules. a tolerance and patients´ satisfaction with a product were followed. Statistic analyses of number of comedones and papules before, after 1 and 2 months was performed.

Results:

All patients completed the study. Sex of patients: 25 were men, 75% were women. Average age of all patients was 19,9 years (16,2 for men, 21,3 for women). All patients suffered from comedonic or mild papulosa acne. Before the treatment, the total number of comedones was 548, the total number of papules was 367. After 1 month of the therapy the total number of comedones was 534, the total number of papules was 226 and after 2 months the numbers were 344 for comedones and 143 for papules. A statistically significant improvement at P□0,05 in both number comedones and papules between months 0-1 and 1-2 was observed. Between months 0 and 2 the significance was even at P□0,001 for both comedones and papules. The tolerance of a product was good with 19 patients, only 1 patient suffered from mild erythema in the beginning of the therapy. Patients´ satisfaction with a product was very good at all patients.

Conclusion:

Our prospective study of patients treated with the cream containing PHYLOBIOMA and AQUA POSAE FILIFORMIS for comedonic or mild papulosa acne indicates that there is a significant improvement in both comedones and papules. The tolerance of a product and patients´ satisfaction with a product were very good. According to this facts we suppose, aboved mentioned cream could be a new possibility of treatment for patients with mild forms of acne

Abstract N°: 965

Comorbid pathology in patients with follicular occlusion syndrome and severe acne

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Introduction & Objectives:

Patients with follicular occlusion syndrome, considered as a systemic inflammatory disease, are characterized by a number of comorbidities, including cardiovascular diseases, metabolic syndrome, endocrine, hormone-related, psychiatric disorders, and immuno-mediated diseases. Acne is also associated with a chronic inflammatory process, which may indicate a potential risk of developing comorbidities, such as metabolic disorders, in the long term.

The aim of the study was to compare the prevalence of comorbid pathology in patients with follicular occlusion syndrome and severe acne.

Materials & Methods:

By the retrospective method was formed 2 groups: Group 1 – 69 patients with hidradenitis suppurativa, or scalp folliculitis, or two or more components of follicular occlusion syndrome (50 men and 19 women, age – 31[25; 39] years); Group 2 – 68 patients with severe acne (30 men and 38 women, age – 24[19; 30] years). The presence of comorbidities in patients of both groups was assessed.

Results:

Among patients with follicular occlusion syndrome, hypertension was found in 6 patients (8.7%), obesity in 7 (10.1%), diabetes mellitus in 2 (2.9%), dyslipidemia in 15 (21.7%), psoriasis in 4 (5.8%), spondyloarthritis in 2 (2.9%), Crohn's disease in 1 (1.4%), and atopic diseases (atopic dermatitis, bronchial asthma, allergic rhinitis) in 6 patients (8.7%). Among patients with severe acne, hypertension was found in 1 patient (1.5%), dyslipidemia in 5 (7.4%), psoriasis in 2 (2.9%), Crohn's disease in 1 (1.5%), and atopic diseases in 17 (25%); obesity, diabetes mellitus, and spondyloarthritis were not observed in this group. Polycystic ovary syndrome was observed in 1 (1.5%) female patient with severe acne.

Conclusion:

Thus, among patients with follicular occlusion syndrome, a statistically significant higher prevalence of obesity (10.1%) and dyslipidemia (21.7%) was observed compared to patients with severe acne, in whom obesity was not observed, and dyslipidemia was observed in 7.4% of cases ($p<0.05$). At the same time, atopic diseases were less frequent among patients with follicular occlusion syndrome, accounting for 8.7% compared to 25% among patients with severe acne ($p<0.05$).

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 989

Effectiveness and tolerability of low-dose micronized-isotretinoin in patients with severe facial acne: a real-world retrospective study from electronic medical records

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Introduction & Objectives: Isotretinoin is the standard of care for severe acne. Low-dose micronized-isotretinoin, a novel formulation, developed with an optimized micronization technology, can be administered independent of meals. We planned this real world study to evaluate effectiveness and tolerability of low-dose micronized-isotretinoin in patients with severe facial acne.

Materials & Methods: This real-world, retrospective, observational, single-arm, electronic medical records (EMR)-based study included patients aged ≥12 years, diagnosed with severe recalcitrant nodular facial acne who were prescribed low-dose micronized-isotretinoin 8/16/24mg. Primary endpoint was improvement in severity of acne based on Investigator's Global Assessment (IGA) scale (0=clear, 1=almost clear, 2=mild, 3=moderate, 4=severe) from baseline to 8±2 weeks of treatment. Secondary endpoints were improvement in severity of acne, response to treatment as assessed and graded by investigator (>75% clearing=excellent, 50-75% clearing=good, 25-50% clearing=fair and <25% clearing=poor) and incidence of adverse events(AEs) from baseline to end of treatment. Exploratory endpoints were change in total number of lesions and nodular lesions and response to treatment graded by patients (1=very good, 2=good, 3=average and 4=poor). The study was registered on Clinical Trial Registry – India (CTRI/2024/07/070813).

Results: Aggregated and anonymized EMR data of** 305 eligible patients were included (Age[mean±SD]: 24.15±7.07 years, 63.93% females). The mean duration of treatment was 16.11±1.48 weeks. Mean IGA score at baseline was 3.40±0.49 that improved significantly to 2.11±0.79, 1.30±0.82 and 0.53±0.73 ($p<0.001$ for all) at week 8±2, 12±2 and 16±2, respectively. Most commonly prescribed dosage of low-dose micronised-isotretinoin was 16mg once-daily. At 16±2 weeks, response to treatment assessed and graded by investigator was 'excellent' in 207 patients (67.87%), 'good' in 5 patients (1.64%) and 'fair' in 92 patients (30.16%). Mean baseline total lesions (32.25±36.95) and nodular lesions (7.06±9.22) count reduced significantly to 2.46±4.63 and 0.38±1.29 ($p<0.001$ for both), respectively at 16± 2 weeks. Total 199 (65.25%) patients graded their response to treatment as 'very good' and 98 (32.13%) as 'good'. Overall, 6 patients

reported 8 AEs like headache and pain.

Conclusion: This first-of-its-kind, EMR-based, retrospective study demonstrated effectiveness and tolerability of low-dose micronized-isotretinoin in patients with severe facial acne. This food-independent formulation of isotretinoin can be a good choice in patients without specific dietary requirements.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1014

Integrative analysis of single-cell transcriptomics highlights TIM3-mediated immunomodulation in myeloid cells and keratinocytes on severe acne development

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Introduction & Objectives:

Acne vulgaris is a highly prevalent chronic inflammatory skin disorder that poses significant clinical and societal burdens. Severe acne (SA) is particularly impactful, leading to scarring, disfigurement, and psychosocial distress. The pathogenesis of SA remains unclear, limiting the development of effective therapies.

Materials & Methods:

In our study, single-cell RNA-sequencing (scRNA-seq) of SA, acne, and normal samples identified neutrophils as the predominant cell cluster enriched in SA patients. Neutrophil-specific differentially expressed genes (DEGs) were screened, and scRNA weighted correlation network analysis (WGCNA) was used to identify hub genes involved in SA development. Flow cytometry was used to validate important hub genes (S100A9 and TLR2) in peripheral neutrophils from SA patients.

Results:

In flow cytometry, only S100A9 was slightly up-regulated. Therefore, we applied Mendelian randomization (MR) to link the scRNA data and found that TIM3 might serve as an immune-checkpoint in SA development. We further investigated TIM3 expression in macrophages, neutrophils and keratinocytes, and its related signaling network through cell-cell communication studies based on scRNA-seq data and multiplex immunohistochemistry (mIHC), highlighting its role in SA development.

Conclusion:

These findings elucidated the function of TIM3 in SA, suggested it as a promising therapeutic target, and highlighted the immunomodulatory role of keratinocytes, providing potential future research directions.

Abstract N°: 1154

Innovative method of therapy in the treatment of acne with the use of fractional Thulium Laser with a wavelength of 1927 nm

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Introduction & Objectives: To evaluate the efficacy and safety of the innovative fractional Thulium laser with a wavelength of 1927 nm in the treatment of acne. Acne is the most common facial localization dermatosis. Despite the most modern methods of treatment of acne, the disease is still one of the most pressing problems. In the treatment of acne today use fractional Thulium laser with a length of 1927 nm, which is based on water absorption, and is effective in the treatment of acne.

Materials & Methods: Thirty patients with mild to moderate acne were under our observation. Our randomized clinical study included both female and male subjects. They were aged between 19 to 35 years. All patients were divided into 2 groups. Each group contained the same number of individuals. All the patients underwent 3D diagnostics of the facial skin before and after the procedure. In order to determine the effectiveness of the therapy. Then the 1st group of patients underwent 4 procedures with an interval of one month once. And the second group of patients underwent 6 procedures at monthly intervals once. During the procedure pain sensations, which patients noted during the course of the procedure and 30 minutes afterwards, were evaluated. In 2 months after the conducted treatment courses the clinical effect of the laser therapy was evaluated using a modern diagnostic method. The level of hemoglobin concentration was evaluated. Erythema rating scale up to 1.0 was evaluated as a mild degree, from 1.1 to 2.8 was evaluated as a medium degree.

Results: The degree of severity of inflammatory process was significantly decreased in all studied subjects. And the patients in the second group had a significantly better result than those in the first group. The post-procedure diagnosis on 3D showed a significantly lower hemoglobin concentration score. The erythema rating scale was significantly lower in patients in group two. During the procedure, patients reported a slight soreness. But no adverse results were reported by the patients.

Conclusion: Fractional Thulium laser with a wavelength of 1927 nm has shown its positive results. The procedure is safe for patients. And fractional Thulium laser with a wavelength of 1927 nm has shown its effectiveness in the treatment of acne. The result was a significant reduction in the inflammatory elements of acne by means of induced destruction in the superficial part of the affected follicles and sebaceous glands thereby killing Cutibacterium acnes.

Abstract N°: 1175

A Systematic Review of Phosphodiesterase-4 Inhibitors in the Treatment of Hidradenitis Suppurativa

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Introduction & Objectives:

Hidradenitis suppurativa (HS), or acne inversa, is a chronic condition affecting 1-2% of the global population, primarily women, and is often diagnosed after a delay of up to 10 years. This delay adversely affects patients' mental and social health. The disease's etiology is complex, involving genetic, hormonal, environmental, and microbiota factors, which lead to inflammation and follicular blockage. Current treatment options, including biologics like adalimumab and secukinumab, have limited efficacy, highlighting an unmet medical need. Phosphodiesterase-4 (PDE-4) inhibitors may offer a promising therapeutic alternative by suppressing pro-inflammatory cytokines. This systematic review evaluates the clinical outcomes of PDE-4 inhibitors in HS treatment.

Materials & Methods:

This systematic review, conducted in accordance with the 2020 PRISMA guidelines, systematically searched PubMed/Medline, Scopus, and Web of Science databases until July 27, 2024, for clinical trials on hidradenitis suppurativa (HS) treated with phosphodiesterase-4 (PDE-4) inhibitors. Excluded studies consisted of review articles, case reports, and animal studies. Data extraction was independently carried out by two investigators, with a third reviewer resolving any discrepancies. The risk of bias for included studies was evaluated using NIH Quality Assessment Tools, yielding an overall risk assessment score for each study.

Results:

This systematic review identified 81 relevant studies, ultimately including seven articles involving 116 cases after screening. The studies featured one randomized controlled trial (RCT), two open-label trials, two observational retrospective studies, and two case series. Apremilast was evaluated in five studies (64 patients, 55%), orismilast in one study (20 patients, 17%), and roflumilast in one study (32 patients, 28%). Findings indicated that apremilast, administered at 30 mg twice daily, led to significant improvements in Hidradenitis Suppurativa Clinical Response (HiSCR) and reductions in abscess counts and pain, with minimal severe adverse events. Orismilast showed some efficacy but had a high discontinuation rate due to tolerability issues; nonetheless, patients who completed treatment experienced notable improvements. Roflumilast demonstrated significant reductions in severity scores and pain after six months, with some patients achieving HiSCR, although a few withdrew due to adverse effects. Overall, these phosphodiesterase-4 inhibitors appear effective for managing HS, particularly apremilast, which has the strongest evidence supporting its use.

Conclusion:

This systematic review assesses the effectiveness of phosphodiesterase-4 inhibitors—apremilast, orismilast, and roflumilast—in treating hidradenitis suppurativa (HS). Results indicate significant clinical improvements and favorable safety profiles for these medications.

Abstract N°: 1198

Nd:YAG 1064nm Laser for Rosacea Fulminans: A safe and effective treatment alternative

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Introduction & Objectives:

Rosacea Fulminans is a rare and severe variant of rosacea, characterized by the sudden onset of painful, inflammatory nodules, pustules, and plaques, predominantly affecting the central face. While conventional treatments, including topical and systemic agents, remain the mainstay of therapy, laser technologies have emerged as promising alternatives, particularly in cases resistant to traditional approaches. The Nd:YAG laser has shown potential as an adjunct treatment modality for managing inflammatory lesions and persistent erythema. This study aims to evaluate the efficacy and safety of long-pulsed Nd:YAG laser in managing moderate to severe rosacea fulminans.

Materials & Methods:

A 33-year-old female patient presented to our outpatient clinic with treatment-resistant rosacea fulminans, characterized by painful nodules and pustules predominantly on the central face. The condition was accompanied by significant psychological distress due to its severity and impact on her quality of life. Prior treatments including local treatment with metronidazole and ivermectin, alongside systemic doxycycline, failed to yield significant improvement. Systemic isotretinoin was contraindicated due to the patient's intention to conceive.** Following the lack of response to conventional therapies, the patient underwent six sessions of long-pulsed Nd:YAG laser treatment.

The laser parameters were as follows:

- **Forehead and nasal area**: 26 J, 40 ms pulse duration, cooling protocol: 30-20-0, 12 mm spot size, 12 mm spacer.
- **Zygomatic and mandibular regions**: 30 J, 40 ms pulse duration, cooling protocol: 30-20-0, 12 mm spot size, 12 mm spacer.

An average of 56 laser pulses were delivered per session. Outcomes were assessed through clinical examination, reduction in papule and pustule counts, erythema grading, and patient-reported satisfaction and quality of life indices. Follow-up evaluations were conducted at baseline, post-treatment, and 1-month intervals.

Results:

Significant clinical improvement was observed, with a marked reduction in papule and pustule counts and erythema after six sessions. Adverse effects were minimal and transient, limited to mild erythema resolving within 24–48 hours. The patient reported a significant improvement in quality of life, as reflected by a marked reduction in DLQI score, alongside high satisfaction with both clinical and aesthetic outcomes.

Conclusion:

The use of the Nd:YAG laser demonstrated excellent efficacy and safety in managing severe rosacea fulminans, offering significant improvement in nodular and pustular lesions and erythema. This modality holds potential as an adjunct or alternative to conventional therapies, particularly for patients with refractory disease. Further studies with larger cohorts

are warranted to validate these findings and establish standardized treatment protocols.

EA DV SYMPOSIUM
PRAGUE
22-24 MAY 2025

Abstract N°: 1208

The use of dermocosmetics in patients receiving a systemic treatment for acne : a comparative real-word study

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Introduction & Objectives:

Acne affects many adolescents and adults and has a significant psychological and social burden on patients. Appearance-related stigma and impact on quality of life underline the importance of effective therapeutic strategies that are well accepted by patients.

Materials & Methods:

Prospective observational study, approved by the Ethics Committee of the Ile de France VII [2022-A02154-39] . We included patients with moderate and severe acne who will receive only a systemic treatment of acne and a dermocosmetic. from over 30 dermatologists in France. Patients who did not object to the project completed an initial questionnaire on day zero, followed by a second questionnaire on day 28. The use of PROs such as AI-ADL and PUSH-D allowed accurate assessment of disease burden and stigma respectively. A questionnaire was administered to assess patients' priority expectations of a dermocosmetic. Acne severity was diagnosed by the dermatologist [GEA scale]. We compared those receiving a dermocosmetic containing essential ceramides, hyaluronic acid and niacinamide or salyclic acid, vitamin PP and kaloin clay [group exposed] to those receiving another different dermocosmetic [group no exposed]

Results:

141 patients were recruited (76% women). 77% reported moderate and 16% severe acne. 91 patients completed both questionnaires [77% female, 77% reported moderate acne and 15% severe acne]. Patients were divided into two groups: an exposed group () comprising 62% of patients and a non-exposed group (other dermocosmetic). The primary expectations of the patients were that the dermocosmetic should be comfortable, leave a non-greasy finish and be fast-acting. For these 91 patients, the AI-AD and PUSH-D scores were 30±15.8 and 22.4±19.9, respectively, on inclusion day and 19.1±14.4 and 14.3±14.8 on day 28. Dermocosmetic evaluation showed a statistically significant improvement in both burden and stigma scores in both groups. In the exposed group, burden improved by 40% versus 30% in the unexposed group, while stigma improved by 37% versus 32.7% in both groups. It should be noted that patients' priority expectations were significantly met.

Conclusion:

A significant improvement of disease burden and stigma was observed at day 28 in both groups. However, the improvement was significantly higher in the exposed group compared to the unexposed group. Further studies are needed to assess the benefits of using dermocosmetics in patients receiving a systemic treatment. Although the indication of dermocosmetics with systemic treatments is still debatable, our preliminary results suggest that if a dermocosmetic were to be used, a formulation containing essential ceramides, hyluronic acid and niacinamide or salyclic acid, vitamin PP and kaloin clay more significantly improves patients' expectations and quality of life compared to o ther dermocosmetics.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1266

Systematic Review of Vascular Lasers for the Treatment of Inflammatory Active Acne Vulgaris

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Introduction & Objectives:

Acne vulgaris is a prevalent skin disorder with significant emotional and psychological impacts. Conventional treatments often have limitations, prompting exploration into alternative therapies like vascular lasers and light treatments.

This systematic review evaluates the efficacy and safety of vascular lasers (IPL, PDL, Nd:YAG) on inflammatory acne lesions associated with acne vulgaris.

Materials & Methods:

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed. Studies from 2010 to 2024 were searched in databases (Scopus, Web of Science, PubMed, Embase) using preset terms. Inclusion criteria encompassed English language studies on vascular lasers for inflammatory acne lesions in comparative and randomized controlled trials. Data extraction included study characteristics, patient data, laser parameters, and treatment outcomes. Quality assessment utilized the Cochrane ROB 2 tool.

Results:

Out of 904 initially retrieved studies, 32 studies involving 1,520 patients met the inclusion criteria. The studies focused on 18 Intense Pulsed Light (IPL), 9 Pulsed Dye Laser (PDL), and 10 Neodymium-Doped Yttrium Aluminum Garnet (Nd:YAG) lasers, with 5 studies comparing two modalities. IPL demonstrated acne vulgaris lesion reduction rates ranging from 42.40% to 61.56%, while PDL achieved reductions of up to 82.5%. Combined therapies, such as PDL/Nd:YAG, resulted in reductions as high as 83.5%. Fractional CO_2 lasers showed acne vulgaris lesion improvement rates of 87.94% ± 14.31, with sustained results at follow-up. Red light-PDT achieved an 85.50% ± 5.39 reduction, outperforming IPL-PDT (75.55% ± 8.09). In comparative studies, Nd:YAG lasers demonstrated slightly superior outcomes over IPL. Adverse effects, including erythema and pain, were generally mild, with severe side effects being rare.

Conclusion:

Vascular lasers, including IPL, PDL, and Nd:YAG, demonstrate significant efficacy and safety in treating inflammatory active acne vulgaris, with combination therapies often showing superior outcomes. Fractional CO_2 lasers and red light-PDT further expand treatment options. Adverse effects, such as erythema and pain, are generally mild and transient. However, variability in study protocols highlights the need for standardized treatment guidelines and further well-designed trials to optimize protocols and ensure consistent, long-term outcomes.

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1288

Efficacy Of Oral Isotretinoin Combined With Topical Clascoterone Compared To Isotretinoin Monotherapy For Severe Acne Vulgaris: A Multi-Center Study

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Efficacy Of Oral Isotretinoin Combined With Topical Clascoterone Compared To Isotretinoin Monotherapy For Severe Acne Vulgaris: A Multi-Center Study

Introduction & Objectives:

Severe nodular acne often causes significant psychological distress and reduced quality of life. Topical clascoterone 1% cream, a novel anti-androgen with a favorable safety profile, may enhance the efficacy of oral isotretinoin, the current gold-standard therapy for severe nodular acne. This study aimed to compare the efficacy of oral isotretinoin monotherapy with isotretinoin in combination with topical clascoterone 1% cream twice daily.

Materials & Methods: Since June 2023, patients with severe and/or nodular acne at several university-affiliated dermatology clinics were treated with oral isotretinoin, either alone or combined with clascoterone 1% cream applied to the face twice daily. In December 2024, records from these clinics were reviewed retrospectively. The analysis included patients aged 12 years and older with severe/nodular acne who received isotretinoin (0.5–0.8 mg/kg/day) with or without twice-daily clascoterone 1% cream for at least 24 weeks. Outcome measures were facial lesion count (FLC), Physician's Global Assessment (PGA), and facial xerosis, all assessed at week 24.

Results: Eighty-two patients (44 monotherapy; 38 combination therapy) were included. The cohort was majorly female (57.3%) and had a mean age of 22 years. Both groups achieved significant FLC reductions at week 24 ($p<0.001$). Mean FLC count reduced from 29.1 to 4.4 in the monotherapy group and from 29.4 to 1.8 in the combination group. Significantly more patients in the combination group reached PGA 0/1 than in the isotretinoin monotherapy group (92.1% vs. 72.7%; $p<0.05$). Facial xerosis rates were lower in the combination group (84% vs. 91%), although this was not statistically significant. A summary of results are shown in Table 1.

Conclusion: Our study suggests that the addition of clascoterone 1% cream may enhance the efficacy of oral isotretinoin therapy without exacerbating adverse effects, offering a promising approach for managing severe/nodular acne. Further studies are needed to confirm these results and evaluate long-term effectiveness.

Table 1: Summary of results

Reduction in mean facial acne lesions (*within groups)*
Mean facial acne lesions count at week baseline ± SD (range)
Mean facial acne lesions count at week 24 (range)
Differences in outcomes (*between groups)*
Absolute mean reduction in facial lesions count ± SD
Number of patients achieving PGA 0/1 at week 24 (%)
Developed facial xerosis

IMG: Isotretinoin monotherapy group; CTG: Combination therapy group; PGA: Physician’s Global Assessment; SD: Standard deviation

*Denotes statistical significance

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1410

Mitochondrial Transplantation as a Novel Therapeutic Approach for Hidradenitis Suppurativa

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Introduction & Objectives: Hidradenitis Suppurativa (HS) is a chronic inflammatory condition characterized by recurrent painful nodules, abscesses, sinus tracts, and scarring. The treatment options for HS remain limited, highlighting the need for novel therapies. Surgical intervention, though adequate for severe cases, presents challenges in optimizing patient outcomes, as demonstrated in a multi-institutional analysis of HS surgeries that emphasized the variability in post-operative recovery and complication rates1. This scoping review evaluates mitochondrial transplantation as a potential approach to address underlying cellular dysfunctions previously associated with HS.

Materials & Methods: We reviewed PubMed, Scopus, and Web of Science databases from inception to January 2025. Studies investigating mitochondrial dysfunction in inflammatory conditions, mitochondrial transplantation techniques, and the potential application of mitochondrial transplantation in inflammation-based pathologies were considered.

Results: Mitochondrial dysfunction has been characterized by its pivotal role in contributing to the pathogenesis of various inflammatory conditions, including skin disorders2. HS presents with inflammation and altered metabolic signaling, including altered oxidative phosphorylation and ATP synthesis. Mitochondrial transplantation as a therapy may enhance cellular function by improving bioenergetics and modulating the inflammatory response, which promotes wound healing in tissue injury models2. Although no studies have directly investigated mitochondrial transplantation in HS patients, the inflammatory mechanisms involved in HS pathogenesis support transplantation as a viable treatment option. Mitochondrial transplantation has been characterized as an effective treatment option in models of ischemia, neurodegeneration, and metabolic disorders as it can contribute to Restoring ATP production and reducing reactive oxygen species, Modulating immune responses and thus reducing pro-inflammatory macrophages involved in the pathogenesis of HS3. Previously, photo biomodulation therapy has demonstrated positive effects in HS management as it enhances mitochondrial function, reinforcing a mitochondrial-centered approach4.

Conclusion: However, there needs to be development into optimizing transplantation techniques for skin applications and ensuring long-term efficacy. Future research must prioritize preclinical investigations on mitochondrial transplantation in HS, aiming to progress to clinical trials.

Abstract N°: 1423

Assessing the influence of some psychoemotional, neuroendocrine, metabolic and immunological changes on the clinical course Of acne after covid-19

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Introduction & Objectives: More and more often, COVID-19 proceeds as an acute respiratory viral infection and evades an immune response, i.e. it affects a weakened immune system faster.. Concurrently, a new problem arises related to the consequences of this disease. Post-COVID-19 syndrome has been widely recognized both among social support groups and in the scientific and medical community. This condition is poorly understood, but it affects in various forms many patients who had COVID-19, regardless of the severity of the disease

Objective – to study the pathogenic role of some metabolic, immunological disorders and vitamin D deficiency, as well as their consequences in the development of acne in women after COVID 19.

Materials & Methods: We have examined 134 women with acne aged 18-45. All patients underwent lab tests to determine the level of cortisol and prolactin, vitamin D deficiency, pro-inflammatory and anti-inflammatory interleukins and phagocytic indices in blood serum, index of insulin resistance.

Results: An increase in cortisol levels by 19.98% (546.5±16.72 nmol/l , $p<0.01$) was observed in women with acne and the cortisol levels reduced by 17.36% (376.8±18.33 nmol/l, $p<0.01$) were observed in patients with acne who had COVID-19, compared to the indicator in the control group (455.8±25.54 nmol/l) . An increase in prolactin levels by 8.21% (341.3±7.92** mIU/L) was found in women with acne, compared to the indicator in the control group (315.4±19.34 mIU/L, $p>0.05$), and by 32.91% (419.2±6.88, $p<0.001$) in patients with acne who had COVID-19. In women with acne who had COVID-19, the level of total vitamin D (25-OH) (D2+D3) in the blood serum was more than three times lower (9.59±2.44 ng/ml) than the indicator in the control group, (42.48±6.36ng/ml, $p<0.001$), and almost two times lower (21.68±4.22 ng/ml, $p<0.01$), compared to the indicator of the group of women with acne who did not have COVID-19. The HOMA index was increased by 11.89% ($p>0.05$) in patients with acne and by 52.87% ($p<0.05$) in women with acne who had COVID-19. IL-1 (ß) levels elevated almost twofold were also observed in women who did not have COVID-19 and by 2.86 times in women who had COVID-19; IL-8 levels elevated by 2. 96 and 1.54 times ($p<0.05$) respectively; IL-4 levels elevated only by 1.9 times and 1.57 respectively; IL-10 levels elevated by 1.88 and 1.59 respectively. Significant changes in phagocytosis indicators were also found, both at the initial and final stages, in all examined women with acne, with more significant deviations observed in patients who had COVID-19.

Conclusion: The changes in certain** immunological (decreased amount of pro-inflammatory and anti-inflammatory interleukins and phagocytic indices both at early and final stages) neuroendocrine and metabolic indices (serum cortisol, prolactin, vitamin D deficiency and insulin resistance index), the presence of significant reactive and personal anxiety were observed in women with acne. A strong and moderate correlational relationship between the nature of changes in the abovementioned indices and COVID 19 in anamnesis was detected. This substantiates the necessity to search for new comprehensive treatment of patients with acne, taking into account the neuroendocrine, metabolic and immunological changes and consequences of chronic COVID 19.

Abstract N°: 1455

To assess quality of life in acne vulgaris with relationship to clinical severity

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Introduction & Objectives:

Background: Acne vulgaris is a common dermatological condition that affects not only physical health but also the quality of life (QOL).

Objective: To study the impact of acne vulgaris on QOL and its correlation with clinical severity, and to assess demographic variations in the QOL of acne patients

Materials & Methods:

A cross-sectional, observational study was conducted on 300 patients with acne vulgaris, divided into adolescent (14-17 years) and adult (18-30 years) groups. Clinical severity was assessed using the Global Acne Grading System, and QOL was evaluated using the Cardiff Acne Disability Index.

Results:

The study found a significant correlation between QOL and clinical severity, with adolescents perceiving their acne as more severe than adults. The QOL was affected more in adolescents, despite no significant difference in clinical severity between the two groups.

Conclusion:

Acne vulgaris significantly impacts QOL, with a correlation between QOL and clinical severity. Assessing QOL is crucial in understanding the patient's condition and tailoring treatment strategies effectively. The study highlights the need for considering QOL in acne management, particularly in adolescents.

Abstract N°: 1506

Isotretinoin and menstrual irregularities (an observational study)

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Introduction & Objectives: Isotretinoin, a synthetic derivative of vitamin A (13-cis-retinoic acid), was first approved by the U.S. Food and Drug Administration (FDA) in 1982 for the treatment of severe acne. It remains one of the most effective acne treatments due to its long-lasting effects on the four primary etiological factors of acne: normalization of follicular desquamation, reduction in sebaceous gland activity, suppression of Cutibacterium acnes proliferation, and exertion of anti-inflammatory effects.

While isotretinoin has been widely studied for its dermatological efficacy and systemic effects, its potential impact on the menstrual cycle remains inconclusive. Existing literature suggests that isotretinoin may influence hormonal regulation, but data on its effects on menstrual regularity are scarce. Clinicians have reported cases of menstrual irregularities in female patients undergoing isotretinoin therapy, yet the underlying mechanisms remain unclear. This study aims to assess the impact of isotretinoin on menstrual patterns among women aged 18 to 40 years in Georgia, thereby contributing to the understanding of its potential endocrine effects

Materials & Methods: This observational study included 83 women aged 18 to 40 years who were undergoing isotretinoin therapy for acne in Georgia. All participants were prescribed isotretinoin at a dosage of 40 mg/day for a minimum duration of 12 weeks. A structured survey was conducted to evaluate changes in menstrual characteristics before and during isotretinoin treatment. Data were collected on menstrual cycle length, regularity, and any disturbances experienced by participants after initiating therapy.

Results: Among the 83 participants, 50 (60.24%) reported a regular menstrual cycle before starting isotretinoin, while 20 (24,1%) had cycles longer than 28 days, and 13 (15,66%) had cycles shorter than 28 days.

Following isotretinoin treatment, 33 participants (39,75%) reported no changes in their menstrual cycle. However, 27 women (32,54%) experienced irregular menstrual cycles, with 16 (59,25%) reporting cycles occurring every two months and 11 (40,75%) experiencing menstruation every three months. Additionally, 23 participants (27,71%) noted alterations in menstrual characteristics, which were categorized as follows:

Prolonged menstruation: 10 participants (43,48%)

Shortened menstruation: 9 participants (39,13%)

Delayed menstruation: 4 participants (17,39%)

Conclusion: Our findings suggest that isotretinoin therapy may contribute to menstrual irregularities in women who previously had a regular menstrual cycle. These changes highlight the potential impact of isotretinoin on hormonal regulation, warranting further investigation into its endocrine effects.

The precise mechanism by which isotretinoin influences menstrual patterns remains unclear. Potential hypotheses include alterations in hypothalamic-pituitary-ovarian axis function, changes in androgen levels, or effects on systemic retinoid metabolism. Given the widespread use of isotretinoin in dermatology, further large-scale studies are needed to elucidate the drug's role in menstrual disturbances and guide clinical decision-making for female patients.

Abstract N°: 1578

The Skin-Gut Axis: Microbiome's Role in Hidradenitis Suppurativa and Inflammatory Bowel Disease — A Systematic Review

Stuttee Mehra[1]

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Introduction & Objectives:

Hidradenitis suppurativa (HS) and inflammatory bowel disease (IBD) are chronic, relapsing inflammatory disorders frequently coexisting, suggesting a shared pathophysiological basis. Emerging evidence underscores the role of the skin-gut axis, where dysbiosis in the gut and skin microbiomes contributes to systemic inflammation and immune dysfunction. The altered microbial composition in these conditions may drive disease progression through immune-mediated pathways, particularly the IL-23/Th17 axis. This systematic review evaluates the interplay between the gut and skin microbiomes in HS and IBD, assessing microbial-driven inflammation, therapeutic implications, and microbiome-targeted interventions.

Materials & Methods: A systematic literature search was conducted across PubMed, EMBASE, and Cochrane Library databases for studies published between 2010 and 2024. Inclusion criteria encompassed randomized controlled trials (RCTs), cohort studies, and case-control studies investigating microbiome alterations in HS and IBD. Exclusion criteria included non-English publications, studies without primary data, and those focusing solely on unrelated dermatological or gastrointestinal conditions. Extracted data included microbiome composition changes, immune modulation, treatment response, and clinical outcomes.

Results: A total of 42 studies involving 1,768 patients met inclusion criteria. Key findings include:

- **Microbiome Composition:** HS and IBD patients exhibit significant dysbiosis, with reduced microbial diversity and an overabundance of pro-inflammatory bacteria (*Prevotella*, *Escherichia coli*) in the gut, while *Staphylococcus aureus* dominates the skin microbiome in HS.
- **Immune Pathways:** Gut dysbiosis correlates with systemic immune activation via the IL-23/Th17 axis, exacerbating inflammatory cascades in both HS and IBD. Short-chain fatty acids, produced by gut microbiota, influence epithelial barrier function and immune modulation, linking gut microbiome changes to skin inflammation.
- **Therapeutic Implications:** Biologic therapies targeting TNF-α and IL-17 demonstrate variable efficacy in patients with both conditions. Emerging evidence suggests microbiome modulation through dietary interventions, probiotics, and fecal microbiota transplantation (FMT) may offer adjunctive benefits, reducing inflammation and improving skin and gut symptoms.

Conclusion:

The skin-gut axis is a crucial mediator in the pathogenesis of HS and IBD, with microbiome-driven immune dysregulation playing a central role. This review highlights the potential of microbiome-targeted therapies as adjuncts to biologic treatments. Personalized approaches considering a patient's microbiome profile may enhance therapeutic efficacy and reduce disease exacerbations. However, variability in microbiome assessment techniques and study methodologies underscores the need for standardized protocols and longitudinal research.

Microbiome alterations in HS and IBD contribute to systemic inflammation and disease progression. Targeting dysbiosis through microbiome-modulating therapies holds promise for improving clinical outcomes. Future research should focus on defining optimal microbial interventions, integrating microbiome profiling into treatment strategies, and further

exploring causal relationships between gut and skin dysbiosis.

Abstract N°: 1584

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Stuttee Mehra[1]

[1]Royal Shrewsbury Hospital, Shrewsbury, United Kingdom

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Microbiome alterations in HS and IBD contribute to systemic inflammation and disease progression. Targeting dysbiosis through microbiome-modulating therapies holds promise for improving clinical outcomes. Future research should focus on defining optimal microbial interventions, integrating microbiome profiling into treatment strategies, and further

exploring causal relationships between gut and skin dysbiosis.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1599

Serum IGF-1 and IL-18 Levels in Acne Vulgaris: Their Relationship with Disease Severity

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Introduction & Objectives: Acne vulgaris (AV) is a common chronic inflammatory skin condition, predominantly affecting adolescents. The pathogenesis of AV is multifactorial, involving increased sebum production, follicular hyperkeratinization, Cutibacterium acnes proliferation, and immune-mediated inflammation. Interleukin-18 (IL-18) and insulin-like growth factor-1 (IGF-1) have been implicated in inflammatory processes, potentially contributing to AV development.

This study aims to assess serum IGF-1 and IL-18 levels in AV patients and evaluate their correlation with disease severity.

Materials & Methods: A total of 40 AV patients and 34 healthy controls were included. Serum IGF-1 and IL-18 levels were analyzed using enzyme-linked immunosorbent assay (ELISA). Acne severity was classified using the Global Acne Scoring System. Statistical analysis was performed to compare groups and assess correlations between biochemical markers and disease severity.

Results: No significant difference was found in serum IGF-1 levels between AV patients and controls ($p>0.05$). However, IL-18 levels exhibited a weak positive correlation with acne severity ($p=0.002$, $r=0.345$). There was no statistically significant correlation between IGF-1 and IL-18 levels ($p>0.05$).

Conclusion: These findings suggest that IL-18 may play a role in acne severity, while IGF-1 does not appear to be a major contributing factor in this cohort. Further research with larger sample sizes is needed to explore the potential role of IL-18 in AV pathogenesis and its therapeutic implications.

Abstract N°: 1604

prevalence of antibiotic resistance in a sample of egyptian acne patients

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Introduction & Objectives:

Antibiotic resistant Cutibacterium acnes might reduce the efficacy of acne treatment because of the antibiotic resistant strains of C. acnes resistant that evolve secondary to their prolonged use in acne management. We aimed to assess the prevalence of cutibacterium acnes resistance to macrolides, doxycycline and clindamycin.

Materials & Methods:

This prospective observational cross sectional study was conducted on 100 acne patients suffering from moderate to severe acne vulgaris. All patients were be subjected to full history taking, examination and grading of acne severity by global acne grading system (GAGS). A questionnaire was obtained from all subjects to evaluate previous antibiotic intake. Comedones were squeezed and swabbed using sterile cotton swabs following a 70% alcohol skin decontamination step. DNA extraction from all collected samples and sequence-based identification of Cutibacterium acnes by Real-Time PCR. Primers specific for detection of resistance to Macrolides, Clindamycin and Doxycycline was used through Real-Time PCR to determine the resistance pattern of C. acnes.

Results:

The prevalence of resistance to macrolides and clindamycin was (78%), the prevalence of resistance to doxycycline was (52%). Multivariate regression analysis showed that the history of antibiotic intake (topical and/or systemic) and administration of antibiotics as monotherapy were significantly associated with resistance to macrolides and clindamycin after controlling other factors whereas the duration of the disease was significantly associated with resistance to doxycycline after controlling other factors.

Conclusion:

The prolonged and frequently empirical use of antibiotics raises concerns about antibiotic resistance since long-term treatment is required for its chronic recurring course.

Abstract N°: 1605

topical metformin-adapalene gel combination is effective in management of mild-moderate acne vulgaris

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Introduction & Objectives:

Acne vulgaris is one of the most common dermatological conditions, affecting individuals of all ages. Therefore, effective treatment options are essential to manage acne and prevent complications. We aimed to study the efficacy of topical metformin alone, topical adapalene alone compared with combination of both in patients with mild to moderate acne vulgaris.

Materials & Methods:

This interventional comparative study was carried out on 45 patients with mild to moderate acne vulgaris. Patients were divided randomly into three groups: Group A received topical metformin 30% cream twice daily, Group B were treated with adapalene 0.1% gel once daily, and Group C applied both treatments on alternate days for 3 months.

Clinical assessments were performed using the GAGS at baseline and monthly follow-ups at weeks 4, 8, and 12 to monitor acne severity. Body composition was measured at the beginning of treatment using the InBody 220 analyzer, focusing on body fat percentage and BMI. Additionally, serum IGF-1 and insulin resistance (HOMA-IR) at the beginning of the study were measured to explore correlations with acne outcomes. Standardized photography documented progress at each follow-up for efficacy and adverse effects. The primary outcome was the percentage change in GAGS score from baseline to week 12.

Results:

At 12 weeks, a a reduction of mean GAGS score was recorded among the three studied groups with group B showing the lowest reduction percentage, compared to groups A and C. demonstrating that group C had the highest reduction percentage (75%) followed by group A (71.43%) and the least in group B (60%). No statistically significant difference was noticed between the three studied groups regarding the side effects, except for a higher frequency of inflammation and irritation in groups B and C.

Correlation analysis revealed that the weight, BMI, and IGF-1 were remarkably positively correlated with improvement % of GAG score. Additionally, the body fat, HOMA-IR, and IGF-1 were substantially positively correlated with acne severity.

When comparing the improvement of inflammatory and non-inflammatory lesions in each group, the mean improvement was significantly higher in the inflammatory lesions (papular and pustaular lesions) in groups A and C, and higher in the non-inflammatory lesions (comedonal lesions) in group B.

Conclusion:

This study demonstrated that topical metformin and adapalene, when used in combination, provided superior efficacy in managing mild to moderate AV compared to each treatment alone indicating that the synergistic effect of alternating these treatments enhances acne control.

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1610

Acneiform Eruption in a Patient Undergoing Epidermal Growth Factor Receptor Inhibitor (Cetuximab) Therapy for Colon Cancer

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Introduction & Objectives:

Drug classes responsible for acneiform eruptions are well known. Recently, epidermal growth factor receptor (EGFR) inhibitors, such as cetuximab, have been identified as a new class associated with these adverse effects. Cetuximab is primarily used in oncological protocols to treat or study advanced solid tumors.

This study aims to describe the clinical and therapeutic characteristics of acneiform eruptions induced by this drug.

Case Report:

A 42-year-old patient undergoing chemotherapy for colon cancer with cetuximab (4 sessions received) developed, after 1-month, facial erythema with inflammatory papulopustular lesions. The lesions extended to the face, trunk, and lower limbs, progressing in an afebrile context with a preserved general condition. The severity of the eruption was classified as grade 3 (according to grading papulopustular rash CTAEv5.0). The pre-treatment workup, including hepatic and lipid panels, showed no abnormalities.

The patient was treated with oral prednisone at 0.5 mg/kg/day, with a gradual taper after 1 week when lesion stabilization was achieved. Isotretinoin was introduced at 0.1 mg/kg/day for 2 weeks, with a progressive increase of 0.1 mg/kg/day every 2 weeks, reaching a cumulative dose of 120 mg/kg. Topical treatment with metronidazole cream was also prescribed, along with discontinuation of cetuximab.

Discussion:

¨EGF¨ plays a key role in regulating keratinocyte growth, particularly in the deeper layers of the epidermis and the follicular infundibulum. Its receptor, EGFR, is also present at these levels. Cetuximab, an EGFR inhibitor, blocks this signaling pathway, leading to increased expression of the protein p27/kip1, a cell cycle inhibitor in keratinocytes. EGF and EGFR are involved in the biology of the follicular infundibulum, and this pathway plays a role in microcomedone wall rupture in acne. This phenomenon triggers a characteristic perifollicular inflammatory reaction, accompanied by epithelial apoptosis and dyskeratosis, disrupting normal differentiation of the follicular infundibulum. As a result, microcomedone formation and follicular wall rupture occur, a mechanism still under investigation.

Acneiform eruption is the most common cutaneous adverse effect of EGFR inhibitors. It is dose-dependent and typically appears within the first two weeks of treatment, peaking between the second and third weeks. It occurs with all anti-EGFR agents but is more frequent and severe with monoclonal antibodies. Clinically, lesions present as follicular papules and papulopustules, often pruritic or painful, predominantly affecting seborrheic areas. In rare cases, as observed in our patient, the eruption can be extensive, involving the limbs. This condition can be distinguished from acne vulgaris by the absence of comedones and the monomorphic nature of the lesions. Resolution is typically observed upon discontinuation of the anti-EGFR agent, though flare-ups may occur following intravenous re-administration. Treatment is based on topical corticosteroids, cyclines, or isotretinoin, depending on acne severity.

Despite its impact on patients' quality of life, acneiform eruption appears to be associated with good antitumor activity

and could serve as a prognostic marker.

Conclusion:

Early recognition and effective management of acneiform reactions induced by anti-EGFR therapy can prevent treatment discontinuation and improve both survival and quality of life in affected patients.

Abstract N°: 1758

The impact of social network filters on self-esteem in acne patients.

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Introduction & Objectives:

Various social networks such as Snapchat and Instagram integrate photographic filters enabling acne patients to modify their images in order to make the various skin lesions that can impair their quality of life disappear.

The aim of our work is to evaluate the impact of social network beauty filters on the self-esteem of acne sufferers.

Materials & Methods:

A 20-question form was created on Google Forms, containing information on the use of beauty filters among acne patients. Epidemiological criteria were identified. Acne severity was assessed using the GEA score, and self-esteem was assessed using the Rosenberg scale.

Results:

Seventy patients (58.3%) with acne used photographic filters from social networks to retouch their images. Their average age was 22 +/- 3 years, with a female predominance and a sex ratio of F/H:8. The GEA acne severity score was very severe in 10% of patients, and severe in 30% of patients in this group. They also had lower scores on the Rosenberg self-esteem scale, with an average score of 6+ /-3, reflecting low self-esteem.

The group not using social network photographic filters on their image had an average age of 25 +/- 2 years, and were predominantly male, with a sex ratio (M/F: 1.5). The GEA acne severity score was very severe in only 4% of patients, and severe in 10% of patients in this group. They also had higher scores on the Rosenberg self-esteem scale, with a mean score of 20+/-4.

The results of our study suggest that the use of photographic filters on social networks is more frequent in women. It is associated with low self-esteem, particularly in patients with severe acne. It is essential to assess the psychological impact of this condition, as low self-esteem could be a symptom of more severe psychiatric disorders, such as depression or anxiety disorders.

Conclusion:

The excessive use of photographic filters on social networks reflects the low self-esteem of many young women. Appropriate treatment of acne lesions and scars, combined with acceptance through various psychotherapy techniques, may be necessary for many patients.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1823

A split-face, evaluator-blinded, randomized controlled trial of efficacy and tolerability of vitamin C and vitamin A-loaded dissolvable microneedle patch in the treatment of atrophic acne scars

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Introduction & Objectives:

One of the most significant complications of acne is scarring, especially atrophic scars. Despite the various treatments available, innovative non-invasive methods, such as dissolvable microneedles with active ingredients, offer promising improvements for scars. This study assessed the efficacy and safety of dissolvable microneedle patches containing ascorbic acid and retinaldehyde (DMP-C/A) for treating atrophic acne scars.

Materials & Methods:

A split-face, evaluator-blinded, randomized controlled trial was conducted with 35 adult participants having mild to moderate atrophic acne scars. The participants applied DMP-C/A to one side of their face, while the untreated side served as a control. Patches were applied thrice a week for six months, and follow-up assessments were performed at 1, 3, and 6 months. The primary outcomes measured included scar depth and changes in skin texture, whereas secondary outcomes consisted of safety assessments and patient satisfaction.

Results:

Significant reductions in Mean Depression Volume (MDV) were observed at 6 months, particularly in the cheek region, with a change of -0.25 (95% CI: -0.31 to -0.20). Meanwhile, the control side showed no improvement, with a value of 0.02 (95% CI: -0.03 to 0.08). However, changes in the temporal region were less pronounced. Reported adverse reactions were mostly mild to moderate, including pain, dryness, and occasional acne flare-ups.

Conclusion:

The study showed that DMP-C/A is an effective and safe non-invasive option for improving atrophic acne scars, especially in the cheek area. Additional research with longer follow-ups is necessary to evaluate long-term efficacy and safety.

Abstract N°: 1849

Studying the level of C-reactive protein in woman with acne after COVID 19

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Introduction & Objectives: The global trend in COVID-19 is that the virus permanently turns into a seasonal disease, such as the flu. Every year, people will face the problem of the coronavirus, which will continue to mutate. The known and studied nature of COVID-19 mutations currently does not indicate that the virus has become more aggressive for the human body. More and more often, COVID-19 proceeds as an acute respiratory viral infection and evades an immune response, i.e. it affects a weakened immune system faster [1,2]. According to the Ministry of Health of Ukraine, during the 2023/2024 epidemic season, more than 4.5 million Ukrainians suffered from acute respiratory viral infection, influenza and COVID-19. Concurrently, a new problem arises related to the consequences of this disease.

Aim - to study the level of CRP (C-reactive protein) in women with acne who had COVID-19.

Materials & Methods: 134 women with acne, aged 18 to 45 y/o, were examined. The levels of CRP (C-reactive protein were determined. The CRP was determined by the latex turbidimetry method twice with an interval of 2 weeks, and the average of two values was considered the result of the study.

Results: Based on clinical findings, 42 (31.34%) patients were diagnosed with mild acne, 41 (30.60%) – moderate acne, 39 (29.10%) – severe acne and 12 (8.96%) – extremely severe acne. It should be noted that 86 (64.44%) women with acne who had COVID-19 and only 48 (35.56%) persons with no prior history of COVID-19 were examined. A control group consisted of 34 apparently healthy persons (donors) of similar age. When determining the level of C-reactive protein in serum of patients with acne, an increase by 1.5 times was observed (6.9±0.94** mg/L) compared to the indicator of the control group(4.6±0.22** mg/L, $p<0.05$), and an almost twofold increase of this indicator was observed in patients with acne, who had COVID-19,(8.7±0.62** mg/L, $p < 0.001$, with no significant difference between both groups of patients with acne. It should be noted that the highest CRP values were observed in patients with papulopustular acne and amounted to 7.3±0.54** mg/L and 9.1±0.48** mg/L, $p < 0.001$, respectively, compared to the control group.

Conclusion: More significant abnormalities in the level of C-reactive protein have been found in patients with acne who have had COVID-19 than acne patients who did not have COVID-19.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1881

Elaioconiosis: a case of occupational acne in a mechanic.

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Introduction & Objectives:

Occupational acne, also known as “elaïoconiosis” or “oil acne,” is a dermatological condition often underestimated despite its potential impact on the quality of life and professional performance of affected workers. This report aims to raise awareness of this condition and emphasize the importance of prevention and early intervention.

Observation:

A 40-year-old man presented with a pruritic skin eruption on the forearms and the anterior thighs, persisting for two years. A mechanic for over twelve years, he was responsible for changing the Diesel engine oils of vehicles. The patient had never used gloves or other protective equipment and reported no history of atopy or previous skin lesions.

A dermatological examination revealed erythematous follicular papules, pustules, and furuncles, primarily on the forearms. Mycological examination was negative, while bacterial cultures from the pustules revealed the presence of *Staphylococcus aureus*. A diagnosis of occupational acne due to prolonged professional exposure to grease and mineral oils was established. The dermatological condition was recognized under Table No. 39 concerning “Oils and greases of mineral or synthetic origin.”

Discussion:

Elaïoconiosis, the most common form of occupational acne in individuals handling insoluble oils or greases, is rarely reported in the literature, although it is not a rare disease. Its pathophysiology is thought to be explained by the secretion and retention of sebum in follicles irritated by the acidity of mineral oils, often contaminated by microorganisms present in these substances.

Conclusion:

Early diagnosis of this dermatological condition is essential to ensure avoidance of exposure to harmful agents and to prevent the persistence of lesions. Strengthening both collective and individual prevention measures is imperative for all workers handling these chemical substances.

Abstract N°: 2033

Evaluation of gustatory and olfactory disturbances in acne vulgaris patients treated with isotretinoin

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Introduction & Objectives: Acne vulgaris (AV) is a disease characterized by inflammation, bacterial colonization, hyperkeratinization, and increased sebum production. Mucocutaneous side effects are the most common adverse effects of systemic isotretinoin. This study aims to assess the impact of mucosal involvement on smell and taste functions in patients under isotretinoin treatment.

Materials & Methods: The study included 48 AV patients over 18 years of age, without known neurological, psychiatric, endocrinological, chronic liver or renal disease, or upper respiratory tract disease, and non-smokers, who applied to our clinic. Taste and smell functions were measured in patients at three different time points: before treatment, at the 3rd month and 6th month of treatment.** To assess taste sensation, the method developed by Mueller et al. was used. Filter paper strips was prepared at 4 different concentrations for each taste (bitter, sweet, sour, and salty). A total of 16 trials (4 for each taste) was conducted. Per correct response is scored as 1 point. Olfactory function was assessed using the Connecticut Chemosensory Clinical Research Center olfactory test, which includes odor threshold (OT) test and odor identification (OI) test. OT test was performed with using n-butanol at 7 increasing concentrations. OI test was performed as asking patients to identify 7 odors (e.g., coffee, soap, cinnamon) including additional 7 distractors. Each test is scored out of 7 points. Repeated measures ANOVA was used to compare results. A value of $p < 0.05$ was considered statistically significant.

Results: In the study, 35 (72.9 %) of the patients were female, and 13 (27.1 %) were male. The ages ranged from 18 to 32 years (21.02 ± 3.42). The doses during the 6-month period ranged between 0.4 - 0.74 mg/kg (0.56 ± 0.08). Sweet ($p<0.001$), salty ($p<0.001$), sour ($p<0.001$), and bitter ($p=0.018$) taste scores showed statistically significant decrease after therapy (Tables 1-4). Although OT and OI scores decreased after therapy, these changes were not found to be statistically significant ($p>0.05$, all) (Tables 5,6).

Conclusion: Although isotretinoin is known to be a safe and effective treatment method for patients with AV, its effect on taste and smell functions remains an area open to further research. Informing patients about changes in taste and smell functions before starting the medication and questioning during follow-up visits could make a significant difference in patients' quality of life.

Table 1. Mean change in sweet taste scores before and after treatment

	Mean	Standard Deviation
Before treatment	3.79	0.41
3rd month	3.71	0.5
6th month	3.4	0.57

($p<0.001$)

Table 2. Mean change in salty taste scores before and after treatment

	Mean	Standard Deviation
Before treatment	3.4	0.7
3rd month	2.94	0.59
6th month	2.87	0.76

(p<0.001)

Table 3. Mean change in sour taste scores before and after treatment

	Mean	Standard Deviation
Before treatment	3.6	0.57
3rd month	3.29	0.71
6th month	2.63	0.78

(p <0.001)

Table 4. Mean change in bitter taste scores before and after treatment

	Mean	Standard Deviation
Before treatment	3.21	0.8
3rd month	2.95	0.63
6th month	2.94	0.83

(p= 0.018)

Table 5. Mean change in odor identification scores before and after treatment

	Mean	Standard Deviation
Before treatment	5.60	0.11
3rd month	5.73	0.1
6th month	5.71	0.99

(p= 0.15)

Table 6. Mean change in odor threshold scores before and after treatment

	Mean	Standard Deviation
Before treatment	6.17	0.89
3rd month	6.29	0.79
6th month	6.34	0.66

(p= 0.258)

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 2076

Acne vulgaris: a warning sign for diagnosing metabolic syndrome

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Introduction & Objectives: The relationships involving the imbalance of hormones, lipids, and acne vulgaris (AV) were uncovered. Metabolic syndrome (MetS) is a collection of disorders such as elevated blood pressure (BP), diabetes, fat stores surrounding

the waist, and high triglyceride (TG) levels. This investigation aimed to highlight the relationship between AV severity and MetS.

Materials & Methods: This case-control study was conducted at the dermatology department. It enrolled 70 female and male AV individuals and 70 healthy individuals as a control. A global acne grading system (GAGS) was used for grading. Participants underwent an anthropometric evaluation and blood test investigation for fasting glucose, fasting insulin, insulin resistance (IR), hormonal, and lipid profile levels.

Results: A significant disparity was observed between AV individuals and healthy individuals in various biochemical parameters such as total cholesterol (TC), low-density lipoprotein

(LDL), high-density lipoprotein (HDL), and TG ($p \leq 0.05$). Fasting insulin and IR of both were statistically significant; this difference was found to increase with increasing severity of AV.

Conclusion: Our investigation revealed a significant relationship between disease severity and MetS criteria in the analyzed population which may make acne a warning sign of metabolic syndrome

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 2105

Ultrasound Imaging in Hidradenitis Suppurativa: A Comprehensive Review

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Introduction & Objectives:

Hidranitis supparativa (HS), also referred to as acne inversa, is a chronic, inflammatory skin condition that significantly impacts patients' quality of life1. Currently, HS is defined by inflammatory nodules, comedones, abscesses, and chronic sinus tracts with scarring occurring in the intertriginous areas of skin like the axillae, inguinal region, gluteal clefts, and perianal area2. Lesions of HS begin with erythema, burning, and pruritus before insidiously progressing to tender deep abscesses that rupture3. Despite ongoing research uncovering HS clinical manifestations, significant diagnostic delays contribute to challenges in HS treatment4. Ultrasound imaging has emerged as a particularly valuable modality for the assessment and management of HS and can prevent aforementioned late HS diagnoses 5. This abstract explores the current benefits of ultrasound in evaluating HS, with a focus on its role in early detection and guided procedures.

Results:

Ultrasound has become an indispensable tool for evaluating HS. In particular, high-frequency ultrasound (HFUS) can identify subtle alterations in the hair follicles and surrounding tissues before they become clinically apparent. This capability is crucial for early intervention and potentially altering the disease course6. In early stages of HS, 3D ultrasound images have demonstrated enlargement of the deepest portion of hair follicles, suggesting that follicular changes may be the initial step in HS pathogenesis. Ultrasound imaging is also able to distinguish HS lesions from variable echogenicity and special features6,7,8 (Table 1). This level of detail aids in accurate staging and severity assessment, which is crucial for treatment planning and monitoring.

Table 1. Characterization of HS skin lesion on ultrasound imaging6,7,8

HS Skin Lesion	Ultrasound Appearance
Nodules	Well-defined, hypoechoic structures in the dermis or subcutaneous tissue
Abscesses	Anechoic or hypoechoic fluid collections with posterior acoustic enhancement
Sinus Tracts	Hypoechoic band-like structures, often with internal echoes
Fistulas	Hypoechoic tracts connecting different tissue planes or extending to the skin surface

Ultrasound gives clinicians the ability to assess the severity of HS in real-time while comparing condition to baseline and provides patients with visual evidence of improvement that increases compliance with treatment long-term5. Ultrasound also has proven valuable from a therapeutic standpoint and is used in biopsies, fine-needle aspirations, and intralesional treatments of HS9. Ultrasound may also be used to monitor response to treatment at regular intervals after therapy. Patients on antibiotics should have an ultrasound 8 weeks after initiation of treatment while patients using immunobiologicals should have ultrasound at weeks 4, 12, and 24 through their treatment course10.

Conclusion:

Ultrasound imaging has revolutionized the diagnosis and management of hidradenitis suppurativa (HS), offering clinicians with an effective imaging modality. The advantages of ultrasound are numerous, including early detection of subclinical lesions for immediate intervention11, cost-effective and increasingly accessible imaging for HS patients12, accurate grading/staging of HS lesions8, quantitative monitoring of disease activity and treatment response5, and informed guidance prior to surgical and minimally invasive treatment procedures13.

Abstract N°: 2124

assessing efficacy of fractional co2 laser therapy combined with injectable prf versus ppp gel for treating post acne atrophic scars

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Introduction & Objectives:

Acne vulgaris often results in atrophic scarring, impacting patients' self-esteem and quality of life. While Fractional CO2 laser therapy is effective for resurfacing and collagen stimulation, the combined efficacy of this treatment with autologous injectables like Platelet-Rich Fibrin (PRF) and Platelet Poor Plasma (PPP) gel remains underexplored. This study investigates comparative effectiveness of Fractional CO2 laser combined with injectable PRF versus PPP gel for post-acne atrophic scars in a split-face, investigator-blind design.

Compare efficacy of Fractional CO2 laser therapy combined with injectable PRF versus PPP gel for treating post-acne atrophic scars and evaluate improvements using objective and subjective measures and assess patient-reported outcomes and tolerability of both treatments.

Materials & Methods:

In this split-face, randomized, controlled, investigator-blind study, 10 patients (5 females, 5 males) with moderate to severe atrophic acne scars received three sessions of Fractional CO2 laser treatment. One side of face was treated with injectable PRF, and the other with PPP gel. Improvement was assessed using Goodman and Baron Quantitative and Qualitative scores, ECCA (Erythema and Color Change Assessment), and PGA (Physician Global Assessment) before and after treatment at 4 weeks interval for 4 sessions.

Results:

Goodman and Baron Quantitative Score: PPP gel showed a mean improvement of 82%, while iPRF showed 62% ($p<0.05$).

ECCA Score: PPP gel resulted in a 69% improvement versus 46% for iPRF, with significant differences observed ($p<0.05$).

Qualitative and PGA Scores: Both treatments provided moderate improvements with no significant difference between them ($p>0.05$).

Conclusion:

Both PPP gel and iPRF combined with Fractional CO2 laser therapy effectively treat post-acne atrophic scars. PPP gel demonstrated greater initial improvement in scar texture and erythema but showed a reduction in efficacy over time. Conversely, iPRF provided consistent and sustained improvements. These findings suggest PPP gel is effective for rapid enhancement, while iPRF offers durable results.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 2144

Acne Conglobata: A Disease Beyond the Skin

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Introduction & Objectives:

Acne conglobata (AC) is a rare and severe form of nodulocystic acne, characterized by deep, painful nodules, abscesses, and interconnected sinus tracts, often leading to extensive scarring.

Beyond its cutaneous manifestations, AC can also affect other organs, including the musculoskeletal system. Among the extracutaneous manifestations reported in association with AC is inflammatory joint disease, particularly spondyloarthritis (SpA).

The exact mechanisms linking AC and SpA are not fully understood, but systemic inflammation, immune dysregulation, and microbiome alterations are believed to contribute.

This case report emphasizes the complex relationship between severe acne and joint involvement, highlighting the importance of early recognition and multidisciplinary management.

Materials & Methods:

We describe the case of a 19-year-old Caucasian male who presented for the first time to our department with widespread AC lesions on the face, anterior and posterior trunk, neck, and axillary regions. The lesions were highly inflamed, painful, and significantly impacted his quality of life.

Due to axillary involvement, hidradenitis suppurativa was considered but ruled out as the lesions did not affect the apocrine glands. More importantly, the patient experienced severe joint pain, mainly in the lower back, knees, and presternal region. Suspecting SAPHO (Synovitis, Acne, Pustulosis, Hyperostosis, Osteitis) syndrome, we conducted a bone scintigraphy, which did not show the typical hyperostotic changes.

After multiple rheumatologic evaluations, spondyloarthritis was determined to be the most likely diagnosis.

Results:

This case highlights the systemic impact of AC, demonstrating its potential to trigger chronic inflammation beyond the skin. Recent studies suggest a connection between severe acne and seronegative spondyloarthropathies, possibly through immune dysregulation—particularly involving the IL-17 and TNF-α pathways—genetic predisposition, and microbiome imbalances.

The persistent inflammatory state in AC may contribute to joint disease, similar to how psoriasis is linked to psoriatic arthritis. These findings emphasize the need to consider joint involvement in patients with severe acne, especially those reporting chronic musculoskeletal symptoms.

Conclusion:

The overlap between severe acne, particularly AC, and inflammatory joint diseases such as spondyloarthritis represents a major diagnostic and therapeutic challenge.

The patient in this case was resistant to conventional acne treatments, further complicating management. If joint involvement is not identified early, it may lead to irreversible damage and significantly impair the patient's quality of life.

This case underscores the need for standardized criteria to assess the severity of acne-related musculoskeletal complications, ensuring timely diagnosis and intervention.

Given the risk of progressive joint damage, dermatologists and rheumatologists must collaborate closely to recognize and treat these cases effectively. Developing clear guidelines for classifying and managing severe acne with systemic involvement is essential for improving patient outcomes and reducing long-term complications.

Abstract N°: 2278

Inflammatory Crossroads – A Case of Syndromic Hidradenitis Suppurativa or a New Phenotype?

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Introduction & Objectives:

Pyoderma gangrenosum (PG), acne, and hidradenitis suppurativa (HS) can occur as a rare autoinflammatory syndrome known as PASH. Distinct mutations in the proline-serine-threonine phosphatase-interacting protein 1 (PSTPIP1) or nicastrin (NCSTN) genes have been described in a proportion of patients, however genetic background is largely unclear. PG exhibits a heterogenous clinical presentation, including rarer variants like pyodermatitis vegetans, pustular, granulomatous or bullous forms. Ulcero-vegetative lesions occurring in HS-affected areas have recently been proposed as a potential HS phenotype, particularly when their activity coincides with classic HS flares. Due to limited number of reported cases, there is no treatment consensus, rendering the management difficult.

Materials & Methods:

We herein introduce the case of a 46-year-old Caucasian male patient, smoker, with no relevant comorbidities and no positive family history. He first presented with a 3-year history of erythemato-violaceous and vegetative plaques with raised borders, pustules and ulcerations on the lower extremities and gluteal areas, some of which healed with cribriform scars. Histological examination of such plaques highlighted pseudo-epitheliomatous hyperplasia, papillomatosis, neutrophil clusters in the epidermis and papillary dermis, as well as mixed dermal infiltrate, suggesting pyoderma vegetans. Skin examination also revealed typical HS manifestations with reccurent abscesses and draining sinuses alternating with retractile scars in the axillary regions, as well as truncal and facial acne scarring with a history of systemic retinoid therapy use. Routine and immunological laboratory tests revealed no specific anomalies, besides anemia of chronic disease and elevated inflammatory markers (erythrocyte sedimentation rate, C-reactive protein, leukocytosis). Based on clinical, laboratory and histopathological findings, a diagnosis of PASH was made, however genetic testing could not be performed. Imaging studies excluded malignancies or inflammatory bowel disorders.

Results:

A 2-year monitorization with a variety of drug regimens was attempted, including topical antiseptics, antibiotics and corticosteroids, systemic glucocorticoids, dapsone, colchicine, clindamycin and rifampicin, leading to partial resolution of lesions. Several hospitalizations due to secondary infections and lesion aggravation led to consistent therapy adjustments. Leading to the latest visit, vegetative lesions with residual atrophic and cribriform scars developed in the axillary regions, with evolution during HS flares, raising the question of a recently described potential PG-like manifestation of HS. Initiation of anti-Tumor Necrosis Factor (TNF)-alpha treatment was discussed with envisioned follow-up.

Conclusion:

HS is a heterogenous entity and its syndromic forms pose challenging clinical and therapeutic challenges. While surgery is a mainstay for HS, it can trigger worsening in PG. Therefore, recognizing between HS phenotypes and overlapping neutrophilic dermatoses ensures tailored management strategies.

Abstract N°: 2280

Evaluation of serum ferritin levels amongst individuals with acne vulgaris

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Introduction & Objectives:

Acne vulgaris is a widespread dermatological condition with a multifactorial etiology. Emerging research highlights the potential role of micronutrients, particularly iron, in acne pathogenesis. This study investigates serum ferritin levels, a key biomarker of iron status, in individuals with acne compared to healthy controls.

Materials & Methods:

Conducted as a hospital-based cross-sectional study over 18 months, the research included 70 acne patients and 70 age- and sex-matched controls. Participants' dietary habits, stress levels, physical activity, and acne severity were assessed, alongside serum ferritin and hemoglobin measurements.

Results:

The median ferritin level in the acne group was 19.0 [10.3; 26.0] ng/mL, significantly lower than the control group, which had a median serum ferritin level of 30.4 ng/mL. Among acne patients, 55.7% exhibited ferritin deficiency (≤20 ng/mL), with 21.4% having very low levels (<10 ng/mL). In contrast, ferritin deficiency was less common in the control group. A significant difference in ferritin levels was observed between males and females, with males displaying higher ferritin levels in both groups. Additionally, lifestyle factors such as high-glycemic-index food consumption, stress, and physical inactivity were significantly associated with acne. Hemoglobin levels were slightly lower in the acne group compared to reference values and was statistically correlated with the GEA acne grade.

Conclusion:

These findings highlight a potential link between serum ferritin levels and acne. Iron, as a critical micronutrient, influences skin health through its role in oxidative stress and immune response. The study also underscores the importance of considering dietary and lifestyle factors in acne management.

Further research is warranted to explore the complex interplay between iron metabolism, inflammation, and acne pathogenesis. Dietary interventions and iron supplementation could represent complementary strategies for managing acne, potentially improving patient outcomes.

Abstract N°: 2297

Certolizumab pegol and surgery combination in the hidradenitis suppurativa management: A case report

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Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory disease characterized by painful, discharge-filled nodules, abscesses, sinus tracts and scars, with involvement of the intertriginous region. Proinflammatory cytokines such as TNF-α, IL-17, IL-12, IL-23, IL-36 play an important role in the development of the disease, which has a complex immunopathogenesis. Understanding the role of these cytokines has made suppressing these cytokines one of the main goals of treatment. There are various treatment options such as topical, intralesional, systemic and surgical in the treatment of HS. Combining systemic and surgical treatments in patients is significant in achieving a successful treatment response.

Materials & Methods:

In this case report, we will present a female patient who we followed up with the diagnosis of HS, and we treated with certolizumab pegol and surgery combination.

Results:

A 24-year-old female patient with known HS diagnosis was evaluated by us due to an increase in her lesions. In the anamnesis taken from the patient, it was learned that her complaints had been going on for 9 years, that painful, discharge-filled swellings had developed intermittently in the armpits and groin, that she had been diagnosed with HS 7 years ago, and that she had been switched to ixekizumab treatment due to her resistance to multiple antibiotics, systemic retinoids, and adalimumab treatments during this period. The patient had no known comorbidities. The patient's body mass index was calculated as 26.37 kg/m2 and she had no history of smoking. Dermatological examination revealed bilateral axillary and inguinal nodules and abscesses, widespread fistula tracts and cicatricial bands, and a surgical scar line in the glutea. The patient's Hurley stage was III, IHS4 score was 16, VAS score was 4, and DLQI was 14. The patient, who had been receiving ixekizumab treatment for 9 months, had active complaints and was planning to get pregnant soon, so it was decided to switch her to certolizumab pegol treatment. In the third month of certolizumab pegol treatment, a significant regression was observed in the complaints, and since the patient stated that the lesions significantly affected his quality of life, it was decided to perform surgery on the axillary and inguinal lesions. The patient underwent modified deroofing (MODES) surgery on the lesions and weekly Platelet Rich Fibrin (PRF) application was performed to manage the wound healing process after the surgery. Certolizumab pegol treatment was continued in the patient whose wound healing process was completed after the surgery. No recurrence was observed in the follow-ups and the patient continues her treatment.

Conclusion:

Although adalimumab, secukinumab and bimekizumab are among the biological agents that can be used in the management of HS, there are cases in the literature where certolizumab pegol was used in the management of HS. It can be used as an important treatment option especially in pregnant patients and those who plan to get pregnant. Combining biological agents with surgery in the management of HS is very important in suppressing disease activity before surgery, increasing surgical success and reducing recurrences after surgery.

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Abstract N°: 2319

Clinical manifestations of acne tarda in Uzbekistan

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Introduction & Objectives: : Acne is a multifactorial disorder that most commonly occurs in adolescence, with a prevalence of approximately 85% (Bhate and Williams, 2013). However, it can persist into adulthood, with a prevalence of 50.9% in women aged 20 to 29 years, compared to 26.3% in women aged 40 to 49 years (Collier et al., 2008). Women account for two-thirds of acne-related dermatologist visits, and one-third of all acne-related dermatologist office visits occur in women over the age of 25 (Yentzer et al., 2010). **The aim of the study:** to observe the most common clinical forms of adult acne (acne tarda) of women in Uzbekistan.

Materials & Methods: 40 female patients were observed. The age group was divided into: Group I from 20-29 years old; Group II from 30-39 years old; Group III from 40-49 years old.

Results: Acne was diagnosed in all patients, including mild acne in 10 (25%), moderate acne in 26 (65%), and severe acne in 4 (10%), with severe severity. According to the clinical course, the rashes manifested themselves in the form of inflammatory elements on the chin, jawline, and neck - in the U-shaped line zone, and single comedones, which differs from the T-shaped line of rashes in adolescents. The diameter of the pores on the face was also wider, unlike in healthy women of the same age. According to the clinical classification of G. Plewig and A. Kligman, the following was revealed: comedonal acne in 8 (20%), papulopustular acne in 10 (67.5%), and conglobate acne in 5 (12.5%).

Conclusion: Thus, observations have shown that there has been an increase in cases of adult women seeking help with late-onset acne, with a moderate acne and papulopustular form, which requires further research into the causes of late forms of acne and the development of tactics for the management and treatment of these patients.

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 2322

Hidradenitis suppurativa and Dowling Degos syndrome: a case report

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Introduction & Objectives:

Hidradenitis suppurativa (HS), is a chronic inflammatory skin disease and is characterized by painful nodules, abscesses, sinuses, and scarring in locations rich in apocrine glands and terminal hair. The disease has a significant comorbidity burden.

Reticulate pigmentary disorders has been used as an umbrella term that includes a variety of disorders.

Dowling-Degos disease is a rare genodermatosis that presents in early adult life with hyperpigmented macules in reticular pattern, particularly in the folds of the skin. Patients presented with hidradenitis suppurativa-like lesions and clinical manifestations compatible with Dowling Degos disease should be considered to have syndromic hidradenitis suppurativa, a rare phenotype of HS that is often underdiagnosed and lacks a specific management approach.

Herein we present a case of a 45-year-old patient with severe hidradenitis suppurativa and clinical manifestations compatible with Dowling Degos disease.

Following is a case report of a 45-year-old male who presented to our special HS- department with severe HS affecting the axillae, inframammary folds, abdomen, groins and upper thighs. He reported onset of the symptoms by age 18. In the past he had received systemic antibiotics which had led only to a temporary improvement. There was a family history of HS in two family members (namely his father and his paternal grandmother). Rest patient's medical history included schizophrenia for which he was on medical treatment with aripiprazole and obesity with recent excessive weight loss as well as venous stasis dermatitis.

Materials & Methods:

The clinical examination of the skin revealed multiple asymptomatic hyperpigmented macules and papules in a reticulate pattern in the flexures (axillae, groins, abdominal fold, inframammary fold). The rash appeared in early adulthood and was gradually progressive in nature. Other clinical findings included generalized pitted scars and comedo-like lesions, affecting his neck, trunk and upper extremities.

Results:

The histological examination of the rash in abdominal fold was non- diagnostic revealing papillomatosis and few cocci in the keratin layer with PAS stain. Further, wood's lamp examination of the skin lesions was unrevealing.

Conclusion:

Often the differential diagnosis among reticulate pigmentary disorders can be difficult especially in cases when pathology is non diagnostic. In this case the associated clinical features, medical history, onset and course of the disease can be a valuable tool in the diagnosis of these conditions.

The association between HS and Dowling Degos disease has been described in the literature and may suggest a shared

pathogenetic mechanism or genetic defect, taking into consideration that genes associated with both HS and Dowling Degos disease have been shown to be important for Notch signaling. Our patient was not examined genetically due to technical difficulties nevertheless genetic study (for mutation analysis of keratin 5 genes, POFUT1 gene, POGLUT1 gene and PSENEN mutations) is recommended for this condition. To our knowledge it is not clear if the co -existence of the two conditions has an impact on the course of HS or treatment resistance. Because of the severity of HS in our patient and primary failure of oral antibiotics for HS we started our patient with anti IL- 17. For Dowling Degos disease multiple treatments have been reported but mostly without convincing therapeutic efficacy.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 2348

The management of Erlotinib-induced acneiform rash: Case studies and stepwise therapeutic approaches

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Introduction & Objectives: Erlotinib, an EGFR inhibitor used for advanced NSCLC with EGFR mutations, often induces acneiform eruptions, impacting on patients' quality of life and adherence to treatment.To improve outcomes, optimal management strategies are required. Here we report the management of erlotinib-induced acneiform lesions in two clinical cases and discuss therapeutic considerations.

Materials & Methods: We report two cases of erlotinib-induced acneiform eruptions, identified in our dermatology department -CHU Fattouma Bourguiba Monastir in 2023. Full clinical data were collected, including patient demographics (age, gender), cancer diagnosis, chronology of dermatological symptoms, clinical findings, treatment regimens and patient outcomes. Clinical responses were evaluated on the basis of clinical improvement and lesion recurrence.

Results: *Case1:* A 52-year-old man with lung adenocarcinoma was treated with erlotinib and developed an acneiform rash on the trunk three months after the start of treatment. The eruption spread to the face and scalp, featuring papulovesicular lesions and pustular nodules. Histological examination confirmed the diagnosis of acneiform eruption. Initial treatment with pristinamycin and topical corticosteroids brought some improvement. However, the use of prophylactic doxycycline aggravated the scalp lesions, leading to its withdrawal. The patient was then started on low-dose acitretin, leading initially to improvement, but with recurrence of folliculitis. Eventually, a reduction in the dose of acitretin to 100 mg per day led to significant clinical improvement.

Case2: A 53-year old female suffering from lung adenocarcinoma developed a generalized acneiform eruption ten months after the start of erlotinib treatment. Her first lesions appeared one month after the start of treatment and were characterized by follicular pustular lesions on an erythematous base, affecting the scalp, trunk and limbs. The diagnosis of acneiform eruption was confirmed by histological examination, but no specific infiltrate was found. The initial treatment with pristinamycin for one week improved the lesions. But due to elevated liver enzymes and signs of tumor progression, treatment with erlotinib was discontinued. After six months' follow-up, the patient achieved clinical remission.

Conclusion: Managing erlotinib-induced acneiform eruptions requires early intervention and tailored therapies to optimize outcomes in EGFR-mutated NSCLC. Pristinamycin is a valuable option when tetracyclines are unsuitable, and acitretin may be effective in severe or persistent cases.