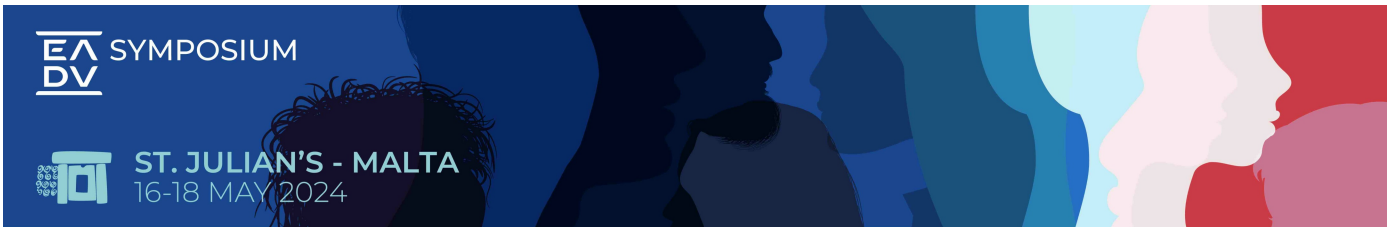

Abstract N°: 62

HB0034 improves patient-reported outcomes in patients with generalized pustular psoriasis: Results from the HB0034 Ib study

Qian Qiaoxia[1, 2], Chi MA[1], Baoqi Yang[3], Xueyan Lu[4], Zhaoxia Zhang[3], Jiaqi Chen[5], Yehong Kuang[6], Chunlei Zhang[4], Xiaoyong Man[5], Juan Su[6], Guodong Zhou[1], Wengjing Ruan[1], Xiaolu Situ[1], Xiuqiang MA[1], Yongming Yang[1], Qian Chen[1], Xiangyang Zhu[1], Qing Zhang[2], Furen Zhang[3]

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Introduction & Objectives: Generalized pustular psoriasis (GPP) is a rare inflammatory skin disease with severe clinical symptoms. In the HB0034 Phase Ib study (NCT05512598), HB0034, a novel anti-IL-36R antibody, has shown promising efficacy in controlling the GPP flare. The objective of this study was to evaluate the efficacy of HB0034 on patient-reported outcomes (PROs) in patients with GPP.

Materials & Methods: The HB0034 Ib study was a multicenter, open-label, single-arm, exploratory study which is designed to evaluate the safety, tolerability, and efficacy of a single intravenous dose of HB0034 in patients presenting moderate-to-severe GPP flare. Two PROs including Psoriasis Symptom Scale (PSS) and Dermatology Life Quality Index (DLQI) were assessed up to 12 weeks (**Figure 1**). Two patients used GPP rescue treatment and the data of subsequent visits were filled in using the Baseline Observation Carried Forward (BOCF) method. All data are reported descriptively. The correlation was analyzed using the Spearman's coefficient test.

Results: 9 patients were enrolled. Patients had a mean PSS of 11 (2.74), indicating severe skin symptoms, and had a mean DLQI of 20.22 (7.85) at baseline, suggesting a very effect on patients' health-related QoL. Improvements from baseline in PSS and DLQI were observed within 1 week and continued to improve and sustain over 12 weeks **(Figure 2)**. The sex and works or school were mostly impacted in DLQI at baseline and were recovered slowly at week 12 **(Figure 3)**. A positive correlation was found between either the PSS or DLQI and disease severity (all $p < 0.05$). Furthermore, the correlation between PSS and disease severity was stronger (all $r > 0.7$), while DLQI was moderate **(Figure 4)**.

Conclusion: Patients with GPP treated with HB0034 achieved improvements in PROs by Week 1, which continued to improve and sustain over 12 weeks. Sex and works or school were mostly impacted in DLQI. We first demonstrated the positive correlation between PROs and disease severity in GPP.

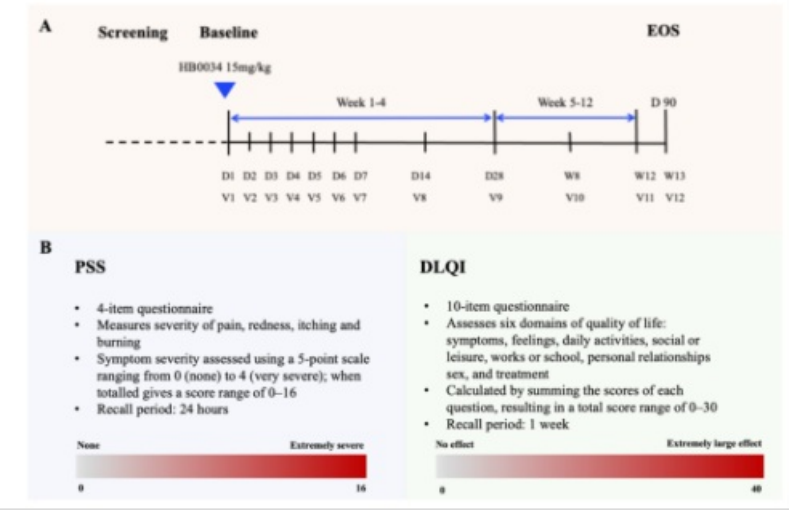


Figure 1. The design of the Phase Ib study (A) and the PROs including PSS and DLQI (B)

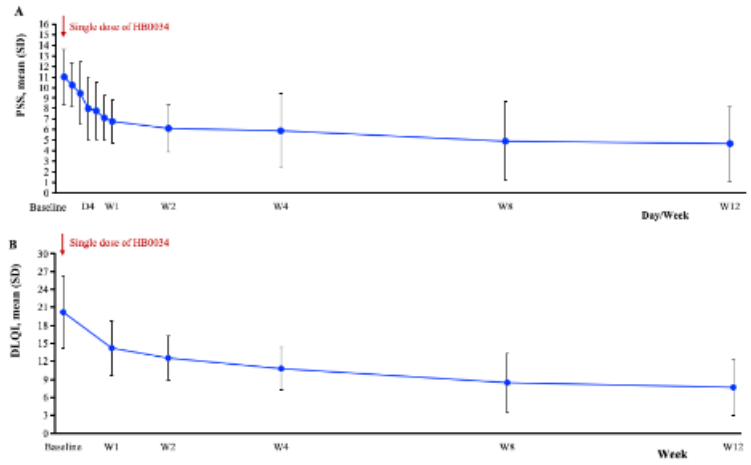


Figure 2. The PSS (A) and DLQI (B) absolute total score by study visit throughout the study

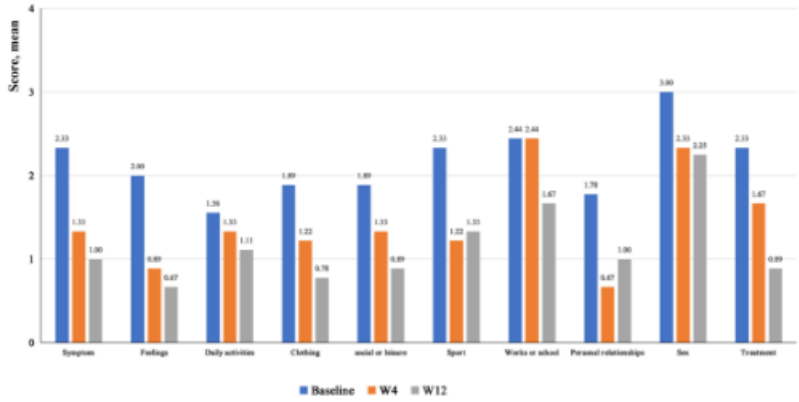


Figure 3. The ten subitems of DLQI at baseline, week4, and week 12

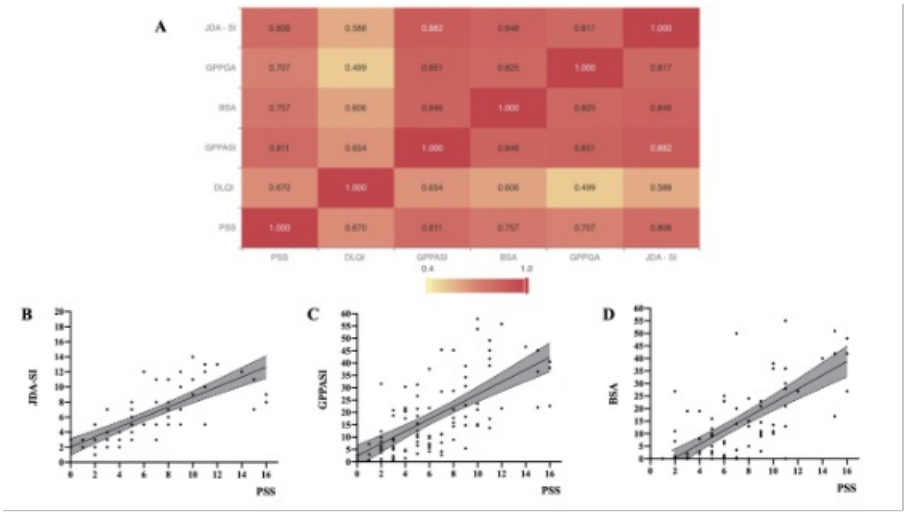
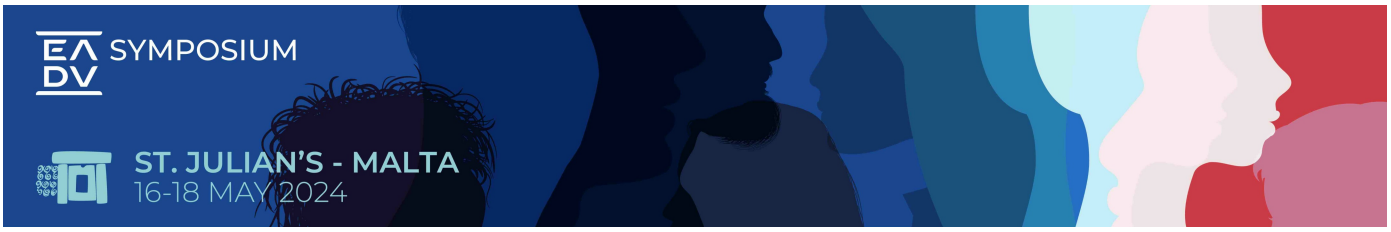


Figure 4. Correlation of PROs and the disease severity of GPP

The heatmap of correlation(A); The scatter diagram of JDA-SI - PSS(B), GPASI - PSS(C), and BSA - PSS(D)

GPPASI, Psoriasis Area and Severity Index for Generalized Pustular Psoriasis; JDA-SI, Japanese Dermatology Association severity index; BSA, Body surface area (BSA) of erythema with pustules.



Abstract N°: 91

Drug survival, effectiveness, and safety of ixekizumab for moderate-to-severe psoriasis up to 5 years.

Luca Mastorino*[1], Simone Ribero[1], Paolo Dapavo[1], Pietro Quaglino[1]

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Introduction & Objectives:

Ixekizumab proved to be effective and safe for psoriasis treatment in several randomized clinical trials, and real-life studies. Nevertheless, long-term real-world experiences are still lacking, with little data up to 4 years of treatment.

The objective of the present study is to analyze survival, effectiveness, and safety of ixekizumab in a real-life cohort of patients affected by moderate to severe psoriasis or psoriatic arthritis until 260 weeks (5 years).

Materials & Methods:

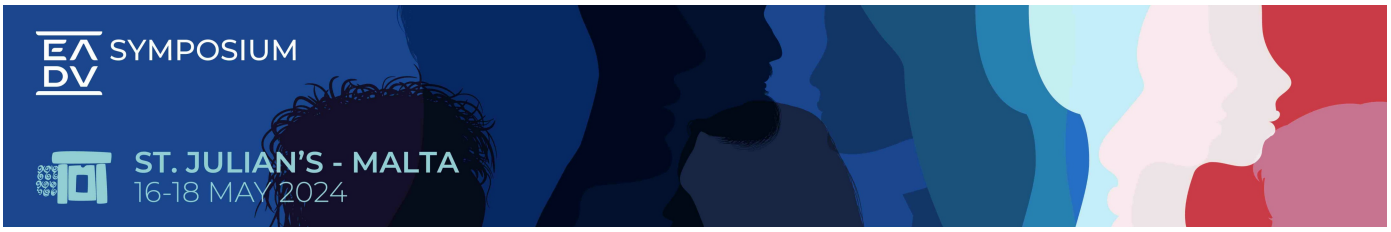
We included all patients treated with ixekizumab from December 2017 to March 2021. Drug survival (DS) was analyzed in patients at risk for up to 5 years. Cox analysis was adopted to evaluate possible predictive factors of discontinuation. Psoriasis Area Severity Index (meanPASI and PASI100, 90, and <=3) was used as outcomes of effectiveness on observed patients at 16, 52, 104, 156, 208, and 260 weeks. Logistic regression was performed to identify possible predictive factors of response.

Results:

DS was 65.5% at 260 weeks, with being a super-responder patient (achievement of PASI 100 at 16 weeks and maintained at 28 weeks) correlated with less risk of discontinuation. PASI100, 90, and <=3 was achieved by 54.1%, 60.5%, and 73% of observed patients respectively at 16 weeks, and by 59.1%, 81.8%, and 95.5%, respectively at 260 weeks. High mean BMI was the only factor strongly associated with less achievement of the outcomes at the earlier time points: PASI100 at 16 weeks (OR 0.93, IC 0.87-0.98, p=0.014), and at 104 weeks (OR0.91, IC 0.84-0.98, p=0.019), PASI90 achievement at 16 weeks (OR 0.94, IC 0.88-0.99, p=0.028), and 104 weeks (OR 0.91, IC 0.83-0.99, p=0.027), and PASI<=3 (OR 0.86, IC 0.76-0.97, p=0.018) at 104 weeks. No severe adverse event was observed.

Conclusion:

Ixekizumab showed high effectiveness and safety for up to 5 years, with survival of 2/3 of treated patients. Rapid response to treatment is predictive of long-term response.



Abstract N°: 190

The role of TRM cells in the formation of molecular scar in psoriasis

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[1]The University of Warmia and Mazury, Department of Dermatology, Sexually Transmitted Diseases and Clinical Immunology , Olsztyn, Poland

Introduction & Objectives:

The natural course of psoriasis is the appearance of new lesions in the place of previous ones, which disappear after a successful therapy. Recent studies showed that after resolving psoriatic plaques we can still find a trace of inflammation in the form of tissue-resident memory cells (TRM): CD8+ T cells are abundantly present in the epidermis and CD4+ in the dermis. Epidermal CD8+ TRM cells express CLA, CCR6, CD103, and IL-23R antigen and produce IL-17A during *ex vivo* stimulation, while CD4+ CD103+ TRM cells can produce IL-22 during stimulation. TRM cells in healed skin were still present and functioning after several years of disease remission.

Materials & Methods:

Systemic and topical therapy aims at constraining the inflammation, but also at inhibiting of the TRM cells formation and reducing their number. The recent study examining the lymphocyte profile in psoriatic lesions after secukinumab and guselkumab treatment showed that both treatments reduced inflammatory DC and CD4+ CD49a-CD103-TRM. Interestingly, guselkumab reduced the number of TRM cells and promoted Treg cells, while secukinumab had the opposite effect. This is a very important conclusion because blocking IL-23 (a regulatory cytokine) can block TRM cells effectively.

In our studies, we assessed the occurrence of TRM cells in psoriatic lesions before and after 12 weeks of therapy in patients treated systemically with methotrexate or secukinumab, ixekizumab, or adalimumab. The most rapid response was observed in the case of therapy with anti-IL-17 at week 4 of treatment, while with MTX and anti-TNF, the response was observable at week 12. On the other hand, topical treatment with Cal/BD foam significantly decreased the expression of TRM markers mainly in the epidermis, and to a lesser extent in the dermis, during the 12-week observation period. It probably results from a worse penetration of the topical medication into the dermis and the effect of the product mainly on the epidermis. The persistence of a high expression of TRM markers in the dermis may result in the rapid recurrence of lesions after discontinuation of topical treatment.

Results:

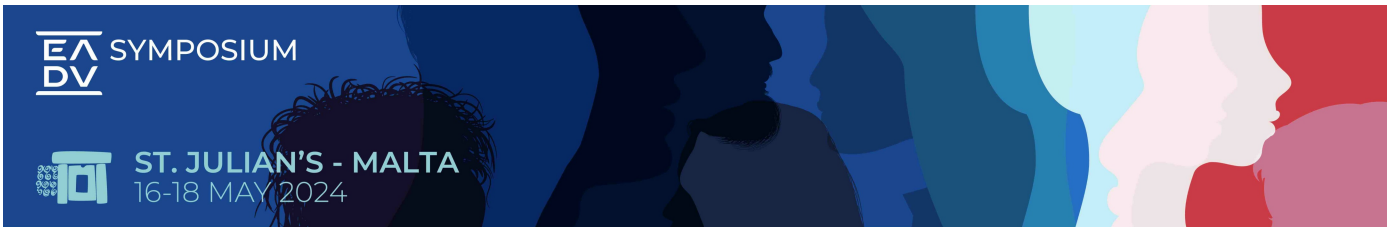
A significant positive relationship was demonstrated between the expression of TRM markers in patients with plaque psoriasis and the duration of skin lesions, which obliges us to implement therapy as soon as possible.

Understanding the mechanisms of psoriatic inflammation and the role of TRM cells can help to explain the key issues related to the disease:

- the resistance of lesions to treatment and reactivation of lesions at the same location,

- the proper time of patient treatment, longer than lesion remission, to suppress and reduce the amount of TRM cells.

The presence of TRM cells explains the clinical phenomenon of the tendency of psoriatic lesions to relapse in the same location and it allows to development of new therapeutic strategies in the future.



Abstract N°: 207

Non-Invasive Transdermal Delivery with Biocompatible Permeation Enhancers for Peptide Inhibitors of IL23/IL-17 Axis in Psoriasis

Xiaolei MA*[1], Mihribangvl Alip[1], Zun Wang[1], Qi Mao[2], Lei Jiang[3], Genhong Yao[1], Lingyun Sun[1]

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Introduction & Objectives:

The interleukin (IL)-23/IL-17 axis plays a central role in the immunopathogenesis of psoriasis and related comorbidities by acting to stimulate keratinocyte hyperproliferation and feed-forwarding circuits of perpetual T cell-mediated inflammation. IL-23 plays a pivotal role in stimulating the production of IL-17 by activating the Th17 cells. Emerging evidence from clinical trials has shown that monoclonal antibodies (mAbs) against IL-23,IL-23R, and IL-17A/IL-17F are effective in the treatment of patients with psoriasis. We used permeation enhancers (PEs) as a non-invasive transdermal drug delivery system for bicyclic peptide inhibitors targeted to IL-23R and IL-17A.

Materials & Methods:

The thermal stability and viscosity of PEs were determined by DSC, TGA, and Rheometer. SEM was used to observe themicro structure of stratum corneum (SC). Mouse skin was placed in the Franz diffusion cell for in vitro skin permeation study. Psoriasis-like mouse models established using topical imiquimod (IMQ) cream for induction. Psoriasis Area and Severity Index (PASI) be used as an objective scoring system for therapeutic efficacy. Inflammatory cytokines, keratinocyte proliferation and inflammatory cell infiltration were determined by hematoxylin-eosin (H&E) and IHC staining. Flow cytometry was employed to analyze the presence, distribution, and subtype of innate lymphoid cells (ILCs) within the spleen, peripheral blood, and lesional epidermis.

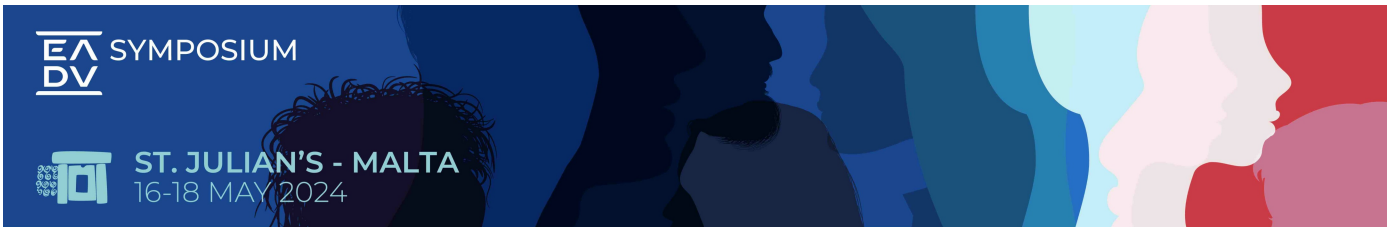
Results:

All of the PEs fused with the lipids in SC to destroy their ordered structure, and the lipid content of the SC was reduced, which led to the decrease in the absorption of the peak area of the lipids. SEM also observed the treated SC was loose and dry, with obvious gaps between the multilayers of lipids. The permeation rate of the experimental group was significantly higher in Franz diffusion study. Semi-quantitative results showed that fluorescence could be detected in the epidermis or dermis of the experimental groups, indicating that PEs could effectively deliver drugs across SC to the dermis. After administration of bicyclic peptide inhibitors with PEs, the scores of erythema, scales and wrinkles were markedly lower compared with model group. The combination of IL-23R and IL-17A inhibitors group showed the lowest PASI score, indicating its excellent antipsoriasis efficacy. In addition, the spleen size was also significantly reduced in treatment groups. The thickness of SC, inflammatory cytokines, keratinocyte proliferation and inflammatory cell infiltration were significantly reduced in treatment groups. In model group, flow cytometry showed an enrichment of ILCs in the circulatory and lesional epidermal tissues. Although no significant reduction was observed after treatment, a notable decreasing trend was evident. Further analysis of RORgT+ positive ILC3 showed a significant decrease in treatment groups.

Conclusion:

Here, we report a biocompatible PE-based bicyclic peptide delivery approach for IL-23/IL-17 axis inhibition in anpsoriasis mouse model. Specifically, we have identified a combination of PEs that simultaneously stabilizesbicyclic peptides and enhances their penetration into the skin following topical application. In addition, wedemonstrate the efficacy of the formulation in IL-23/IL-17 axis selective blockade and reconfiguration of aspectrum of skin-resident and circulating innate

lymphoid cells.



Abstract N°: 280

Super-response to guselkumab treatment in patients with moderate-to-severe psoriasis in real-world practice

Martina Kojanova[1], Jorga Fialova[1], Petra Cetkovska[2], Spyridon Gkalpakiotis[3], Alena Machovcova[4], Petr Arenberger[3], Jiri Stork[1], Tomas Dolezal[5], Daniela Pejrilova[5], Group Biorep[6]

[1]First Faculty of Medicine and General University Hospital, Charles University, Department of Dermatovenereology, Prague, Czech Republic, [2]Faculty of Medicine and University Hospital in Pilsen, Charles University, Department of Dermatovenereology, Pilsen, Czech Republic, [3]Third Faculty of Medicine and Kralovske Vinohrady University Hospital, Charles University, Department of Dermatovenereology, Prague, Czech Republic, [4]Motol University Hospital, Department of Dermatovenereology, Prague, Czech Republic, [5]Value Outcomes, Prague, Czech Republic, [6]Czech Republic

Introduction & Objectives:

Guselkumab is an interleukin-23 inhibitor with demonstrated efficacy in patients with psoriasis. The term super-responder was used in the clinical trial GUIDE for those who achieved complete skin clearance at W20 and W28. Evidence of super-response to guselkumab treatment in real-world settings is still limited.

Materials & Methods:

This observational, retrospective, multicenter cohort study analyzed data from patients registered in the Czech national registry of patients with inflammatory skin diseases BIOREP treated for psoriasis with guselkumab until December 2023.

The main objective was to evaluate the characteristics of patients who achieved a super-response at week 16 and 24.

A multivariable logistic regression analyzed the association between baseline factors and the likelihood of becoming a super-responder (SRe).

Results:

In total, 369 patients were enrolled, men predominated (66.1%). Of all patients 109 (29.5%) were SRe and 260 (70.5%) were non-SRe.

Mean time from diagnosis to initiation of guselkumab therapy was 22.5 years (SD 13.2; median 21.0; min 0.0; max 65.0) with similar duration in both groups (SRe mean time 22.4 years; SD 12.7; median 20.0; min 2.0; max 64 vs. non-SRe 22.5 years, SD 13.4; median 21.0; min 0.0; max 65.0 years).

A total 45.5% patients were naïve to biologic therapy, 49.5% in SRe group and 43.8% in non-SRe patients.

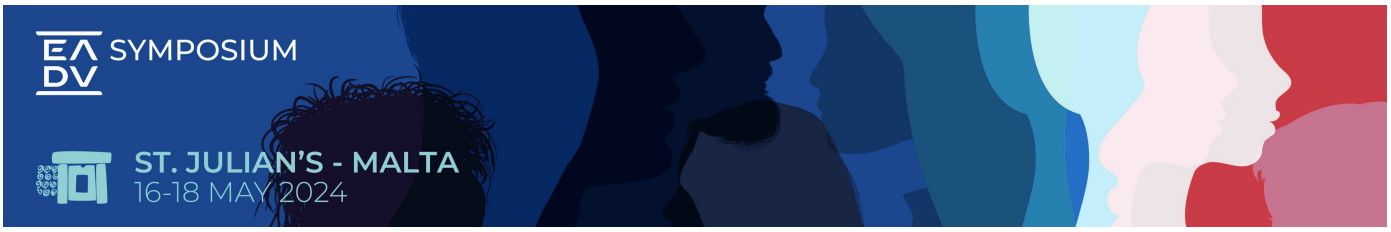
The mean PASI at baseline was 16.2 (SD 7.6); 16.0 (SD 7.1) for SRe vs. 16.2 (SD 7.8) in non-SRe and was decreased after 6 months. The mean PASI<1 remained stable until 54 months.

The mean duration of treatment with guselkumab was 2.6 years (SD 1.2), similar in SRe and non-SRe (2.7; SD 1.3 and 2.6; SD 1.2 years, respectively).

Baseline BMI and prior biologic use had the greatest impact on becoming a SRe. With each additional BMI point, the patient has an 8% lower chance of being a SRe (OR = 0.92; 95% CI: 0.88-0.96; p = 0.000) and patients who received guselkumab in a second-line therapy or later have a 24% lower chance than biologic naïve patients to be a SRe (OR = 0.76; 95% CI: 0.62-0.94; p = 0.012). No differences were found with respect to gender, age, time to initiation of guselkumab or baseline PASI.

Conclusion:

Guselkumab efficacy was consistent across subpopulations. Our analyses showed the association between baseline factors and the likelihood of becoming a SRe in real-world setting. Higher baseline BMI and prior biologic use had the greatest negative impact on becoming a SRe.



Abstract N°: 287

Survival analysis of anti interleukin-17 in psoriatic arthritis in real clinical practice

Juan Manuel Morón Ocaña[1], Celia Azábal Pérez[2], Julia Clavijo Herrera[1], Amalia Pérez Gil[1], Raquel Hernandez Sanchez[2]

[1]Hospital Universitario Nuestra Señora de Valme, Dermatology, Sevilla, Spain, [2]Hospital Universitario Nuestra Señora de Valme, Reumatology, Sevilla, Spain

Introduction & Objectives:

Recently, new therapies for psoriatic arthritis (PsA) have emerged, such as anti interleukin-17 (IL-17) drugs, which selectively block its action, reducing the inflammatory cascade. They have been shown to be effective in PsA and psoriasis, offering new hope for improving the quality of life of patients.

Materials & Methods:

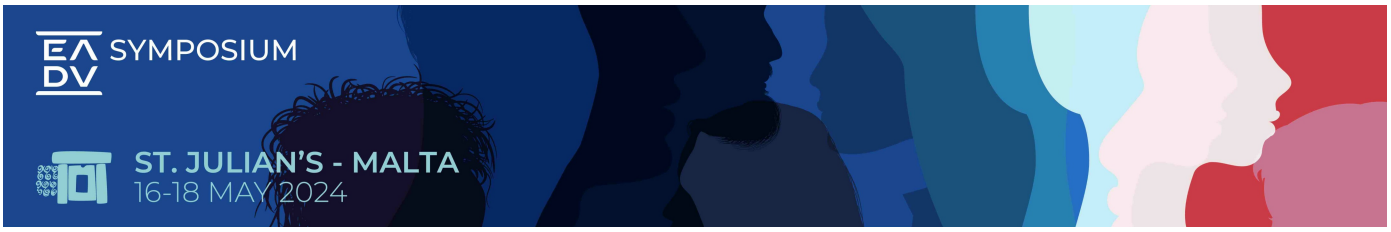
Retrospective longitudinal descriptive observational study of patients with PsA treated with anti-IL-17 drugs, under follow-up by Rheumatology-Dermatology at Hospital de Valme. Patients aged ≥18 years, with PsA (CASPAR) and on treatment with anti-IL-17 were included. Sociodemographic, clinical and treatment-related variables were collected. Kaplan Meier survival curves were performed to describe the survival of anti-IL-17 drugs in real clinical practice conditions, and to compare it in terms of the therapeutic regimen used and the b/tsDMARDs previously received.

Results:

Fifty-six patients with PsA were included, with no gender differences, predominantly peripheral involvement (80.3%). The median age was 55 years (p25 49-p75 59.75). 26.8% were hypertensive and 14.3% diabetic, with a median body mass index (BMI) of 29.50 (p25 25.25-p75 32.55) and cholesterol levels of 200.50 mg/dl (p25 172.25-p75 226.75). The 18.2% were smokers. The median baseline DAPSA was 25.20 (p25 16.76-p75 29.18), with 60% being moderately active and 28.9% being highly active. The median baseline ASDAS was 3.06 (p25 2.69-p75 3.60), with 72.7% having high activity. Forty-one patients received secukinumab and fifteen received ixekinumab. Combination therapy with csDMARDs was used in 69.6%, mainly methotrexate (52.5%). The 58.9% had previously received b/tsDMARDs. Median survival for the overall sample was 312.14 weeks (p25 66.86-p75 339.14), greater than 80% to week 40, *Figure 1.* A longer survival was observed in those who had received a single b/tsDMARDs previously, without statistical significance (p=0,560), *Figure 2.* A slightly better survival was seen in monotherapy compared to combination therapy with csDMARD (p=0,296), *Figure 3*. Ixekinumab survival was superior to secukinumab in a non-significant way (p=0,084). At the end of follow-up, 53.9% of patients were still on treatment. The main reason for discontinuation of the drug was secondary inefficacy (50%). Only 3 patients discontinued treatment due to adverse effects.

Conclusion:

The study presents patients with PsA with a high rate of inflammatory activity who received treatment with anti-IL-17 drugs. A high cumulative survival was observed, being approximately 70% at 100 weeks. This was higher in monotherapy versus combination therapy with csDMARDs, without being statistically significant. There was no significant difference when comparing survival according to the number of prior b/tsDMARDs. Ixekinumab had a longer survival than secukinumab, probably influenced by the small sample size and the higher percentage of patients receiving secukinumab. The main reason for drug discontinuation was secondary inefficacy, with a low rate of adverse events. The observed survival correlates with that previously described in clinical trials and other real-world clinical practice studies.



Abstract N°: 341

Real-world safety profile of patients with moderate-to-severe psoriasis exposed to biologics

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[1]Kyung Hee University Hospital at Gangdong, Department of Dermatology, Seoul, Korea, Rep. of South

Introduction & Objectives:

Cumulative data from clinical trials and real-world studies have demonstrated the high efficacy and favorable safety profiles of biologics, especially IL-17 and IL-23 inhibitors, for treating moderate-to-severe plaque psoriasis. In particular, IL-17 inhibitors have been reported to be associated with the aggravation of inflammatory bowel disease (IBD) and an increased risk of oral or gastrointestinal candidiasis, but the risk has not been evaluated. The present study was aimed at examining the adverse events in patients with moderate-to-severe psoriasis who were treated with currently approved biologics in Korea.

Materials & Methods:

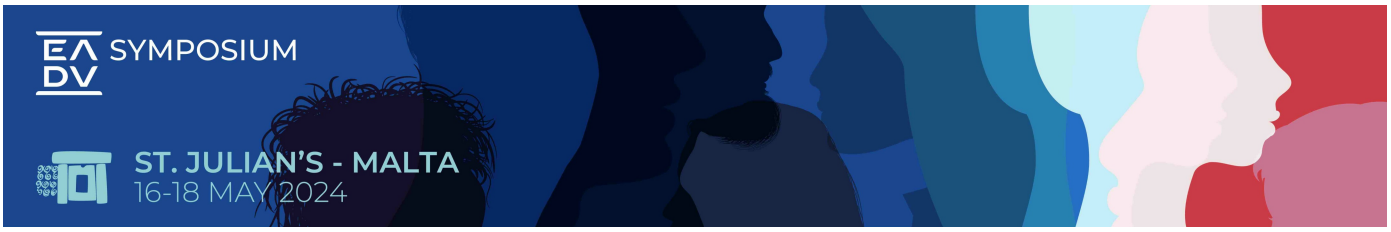
The multicenter, retrospective cohort study was aimed at examining adverse events in biologic-treated patients with moderate-to-severe psoriasis by using a real-world database. We analyzed exposure-adjusted incidence rates for new-onset IBD, oral and gastrointestinal candidiasis, pulmonary tuberculosis, herpes zoster, and major cardiovascular events (MACEs) in biologic-treated patients with moderate-to-severe psoriasis.

Results:

Overall, 2085 patients were found to have been exposed to tumor necrosis factor (TNF)-α, IL-12/23, IL-17, and IL-23 inhibitors (n = 463, 540, 635, and 447, respectively). No patient developed new-onset IBD. The incidence rates of oral and gastrointestinal candidiasis were comparable between patients treated with IL-23 and IL-17 inhibitors (5.6 and 5.3 per 1000 PY, respectively). None treated with IL-17 or IL-23 inhibitors reported pulmonary tuberculosis. The incidence rate of herpes zoster was the highest in patients treated with TNF-α inhibitors (17.0 per 1000 PY), followed by IL-17, IL-23, and IL-12/23 inhibitors (13.3, 7.8, and 2.7 per 1000 PY, respectively). MACEs were not reported in patients treated with IL-17 inhibitors but were reported in those treated with TNF-α, IL-23, and IL-12/23 inhibitors (incidence: 5.6, 3.8, and 1.8 per 1000 PY, respectively).

Conclusion:

The study indicated favorable safety profiles of biologics in Korean patients with moderate-to-severe psoriasis. Compared with IL-23 blockade, IL-17 blockade appears to be associated with minimal risks of new-onset IBD, pulmonary tuberculosis, and MACEs and comparable risks of oral/GI candidiasis.



Abstract N°: 362

Psoriasis and psoriasiform reactions induced by Dupilumab. A case series.

Elisabeth Vanrell-Büse*[1], Carlos Martorell-Moreau[1], Laura Moreno-Hernández[1], Maria Nazaret Olmos-García[1], Ana Martín-Santiago[1], Juan Escalas[1]

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Introduction & Objectives:

Psoriasis and atopic dermatitis have been considered opposed illnesses for decades but now its known that they can coexist and the balance between Th1 and Th2 immunity can be altered extrinsically. With the introduction of biological treatments for psoriasis (anti-TNF, IL-23 o IL-17) cases of induced atopic dermatitis have been described. In the same manner, psoriasis can be induced by biological treatments for atopic dermatitis (anti-IL4/IL13).

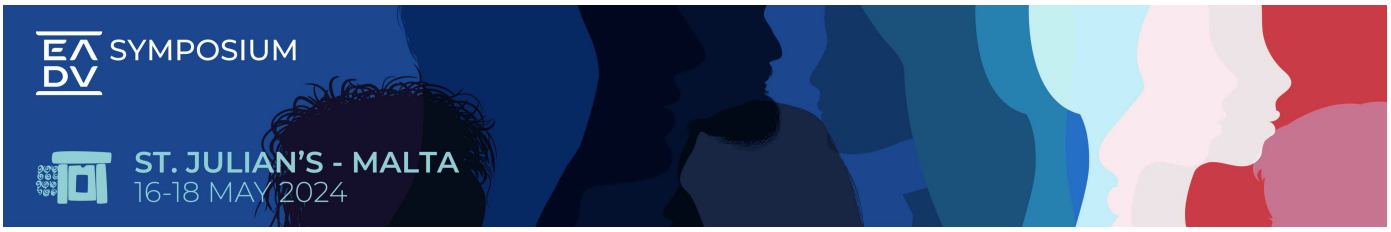
Materials & Methods:

We present 5 patients (4 men and 1 women) with atopic dermatitis who have been treated with Dupilumab and developed psoriasiform reactions in our centre. Four patients had no previous history of psoriasis. The mean time until the onset of psoriasis was 3.6 months. All of them presented with mild plaque psoriasis (mean PASI = 3.2). The most frequent affected place were extremities (4), followed by the trunk (2), and scalp (1).

In none of the patients the biologic treatment was suspended or substituted due to the psoriasiform reaction. All of them achieved a good control with topical treatment, with two cases of complete resolution of skin lesions.

Conclusion:

The balance between Th1 and Th2 immunity can be altered by biologic treatments. It is known that IL-4 is a negative regulator of Th17 cell differentiation, and IL-4/13 inhibitors produce a shift to IL-17 production, characteristic of psoriasis inflammation. Dual management of psoriasis and atopic dermatitis in the same patient can be challenging, the use of topical treatment may avoid the suspension or substitution of the biological treatment.



Abstract N°: 386

Factors associated with achieving 'complete' skin clearance compared to 'almost complete' skin clearance in patients with moderate to severe psoriasis treated with biologics: A 10-year retrospective study

Young Lip Park[1], Sung Yul Lee[2], Sul Hee Lee[1], Jin Woo Yu[1], Yun Su Eun[2]

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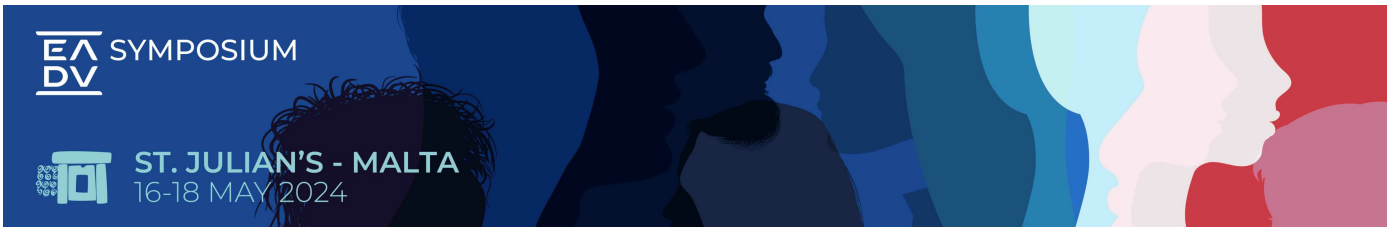
Introduction & Objectives: Biologics have demonstrated high efficacy in achieving 'almost complete' skin clearance in patients with moderate to severe psoriasis. Nonetheless, achieving 'complete' skin clearance remains a treatment goal for some highly biologics-resistant patients, as residual lesions impact their quality of life. The risk factors for failure to achieve a Psoriasis Area and Severity Index (PASI)100 response in patients with good response to biologics remain unknown. The purpose of this study is to evaluate potential risk factors that hinder PASI100 response in patients with moderate to severe psoriasis on biologics compared to patients with PASI90 response.

Materials & Methods: This retrospective study evaluated these risk factors by comparing patients who achieved complete skin clearance (PASI100) with those who achieved almost complete skin clearance (PASI90). A database of 131 psoriasis patients treated with biologics, who achieved a PASI90 or PASI100 response, was reviewed from a tertiary referral hospital in South Korea. The patients were classified into PASI90 and PASI100 groups according to their PASI response.

Results: The PASI100 group had a lower prevalence of smoking history (adjusted odds ratio [OR] = 0.34; 95% confidence interval [CI]: 0.14–0.85; P = 0.021) and psoriasis on the anterior lower legs at baseline (adjusted OR = 0.18; 95% CI: 0.03–0.99; P = 0.049) than patients in the PASI90 group.

Conclusion: This study suggested that smoking history and psoriatic skin lesions on the anterior lower legs are risk factors for failure to achieve a PASI100 response in psoriasis patients treated with biologics.



Abstract N°: 526

Imiquimod-induced Psoriasis Model in Developmentally Regulated GTP-binding Protein 2 Knockout Mice

Jin Soo Kim[1], Doo Rae Cha[1], Chan Hui Jang[1], Ho Seok Suh[1], Do Won Kim[1]

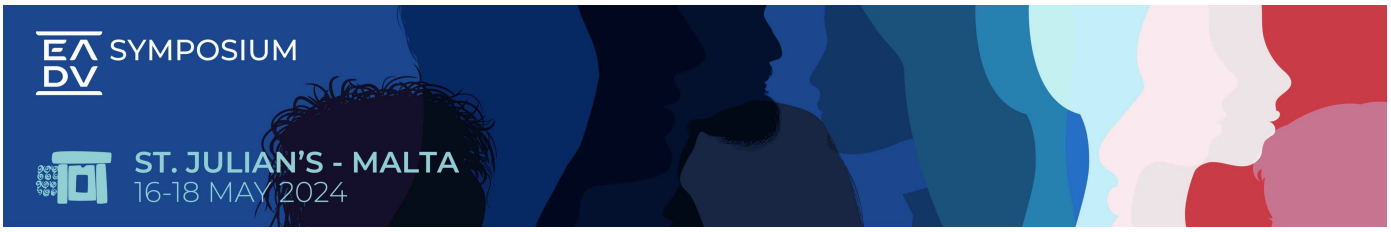
[1]Ulsan University Hospital, Department of Dermatology, Korea, Rep. of South

Introduction & Objectives: Developmentally regulated GTP-binding protein 2 (DRG2) is a type of GTP-binding protein that plays an essential role in cell growth and differentiation, but its role in certain diseases remains unknown. A previous study revealed that DRG2 inhibits nuclear factor kappa B (NF-kB) function in macrophages and prevents T helper 17 cell (Th17) differentiation; this suggests possible DRG2 involvement in the pathogenesis and clinical phenotype of psoriasis. We aimed to investigate the relationship between DRG2 expression in mice and psoriatic lesions.

Materials & Methods: Psoriasis was induced by applying imiquimod cream for 6 days to the shaved backs of C57BL/6 (WT mice) and DRG2 knock-out mice (KO mice). During the following 15 days, clinical improvements, histopathological changes, and IL-10 expression in the two groups were compared.

Results: In WT mice, lesions began to improve after 6 days, and almost all lesions had resolved by day 12. In contrast, inflammation persisted in KO mice until day 15. Clinical indicators and histopathological findings followed a similar pattern. IL-10 was significantly overexpressed in WT mice, while minimally expressed in KO mice.

Conclusion: When imiquimod was applied to KO mice, psoriasis-like lesions were induced because of the absence of DRG2. This showed the relevance of DRG2 in the pathogenesis of psoriasis and suggested that DRG2 knockout mice serve as a novel psoriasis model that compensates for the shortcomings of the existing one.



Abstract N°: 653

Effect of smoking cessation on the development of psoriasis

Seong Rae Kim[1], Young-Geun Choi[2], Seong Jin Jo[1]

[1]Seoul National University College of Medicine, Dermatology,[2]Sungkyunkwan University, Mathematics Education

Introduction & Objectives:

Smoking has been identified as a contributory factor for psoriasis, yet the effects of quitting smoking on this condition have rarely been assessed.This study aims to investigate the impact of quitting smoking on the incidence of psoriasis vulgaris (PsV), palmoplantar pustulosis (PPP), and generalized pustular psoriasis (GPP).

Materials & Methods:

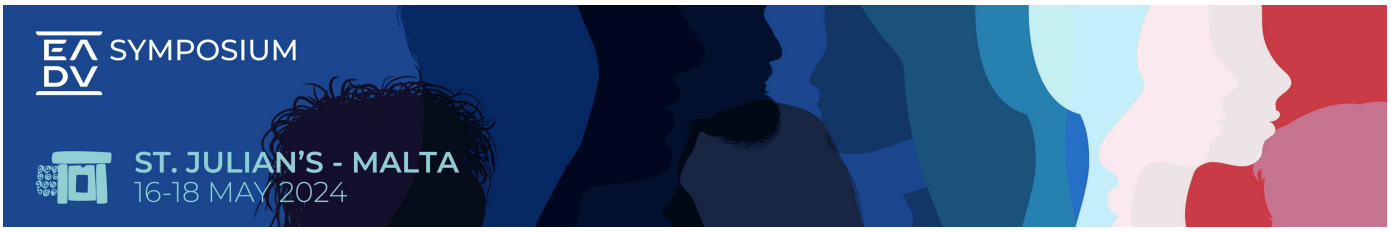
We conducted a retrospective analysis of 5,784,973 individuals who were psoriasis-free, using data from the Korean National Health Insurance Service. We evaluated their smoking status changes between 2004 and 2007 and monitored for new psoriasis cases up to 2021. Risks of psoriasis among continuous smokers, individuals who quit smoking, persistent non-smokers, and those who never smoked were compared using multivariate Cox proportional hazards models.

Results:

Over 77,990,688 person-years, there were 67,364 identified cases of psoriasis. Quitting smoking was associated with a lower risk of psoriasis compared to those who continued smoking (adjusted hazard ratio [aHR] 0.91; 95% confidence interval [CI] 0.87–0.95), particularly for PsV (aHR 0.92; 95% CI 0.88–0.97) and PPP (aHR 0.71; 95% CI 0.63–0.79), whereas the decrease in GPP risk was not significant. The risk reduction was more pronounced among individuals who remained non-smokers after quitting.

Conclusion:

Discontinuing smoking and sustaining non-smoking status significantly reduces the likelihood of developing psoriasis compared to ongoing smoking.



Abstract N°: 679

Effectiveness of Risankizumab in Canadian Psoriasis Patients Participating in the VALUE Post-marketing Multicountry Observational Study

Charles Lynde[1, 2, 3], Maryam Alam[1, 4], David N. Adam[1, 3, 5], Ronald Vender[6, 7], Richard Haydey[8], A Sabri Alper*[9], Tshepiso Madihlaba[10], Melanie Labelle[9], Kim A. Papp[1, 3, 11]

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Introduction & Objectives: Risankizumab (RZB), an optimized humanized IgG1 monoclonal antibody, inhibits IL-23 by binding its p19 subunit with high affinity and specificity and is approved for the treatment of moderate-to-severe plaque psoriasis, psoriatic arthritis, and Crohn's disease. The VALUE post-marketing observational study is investigating the effectiveness of RZB per label in real world practice. The effectiveness outcomes at Month 19, from Canadian patients are reported.

Materials & Methods: VALUE (NCT03982394) is an ongoing global prospective observational cohort study that evaluates real-world durability of response, time to first treatment change and impact on quality of life, healthcare resource utilization and costs for RZB compared with other commonly used biologics (2:1 allocation ratio). Patients (≥18 years) with confirmed psoriasis were treated using RZB or other biologics approved for psoriasis as prescribed by a physician per label and independently from study participation. Effectiveness was assessed with the Psoriasis Area and Severity Index (PASI), static Physician Global Assessment (sPGA), and various patient-reported outcomes measures including Dermatology Life Quality Index (DLQI) scores, and changes to treatment at baseline, Week 4, and every 12 weeks thereafter. Patients who switched to another biologic or discontinued the initiated biologic due to lack of effectiveness or intolerability were treated as treatment failures for subsequent visits. Descriptive statistics were summarized from an interim database lock on 26 September 2022; the Canadian subpopulation was not powered to show statistical significance.

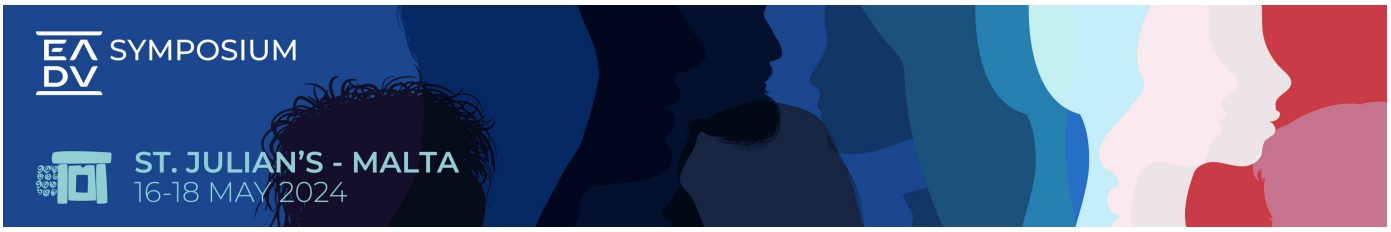
Results: At cut-off, 378 Canadian patients were included in the analysis, with 265 and 113 patients receiving RZB and other biologics, respectively. At baseline, patient demographics and disease characteristics were mostly comparable; however, the RZB group enrolled fewer patients with a history of psoriatic arthritis (32 [12.1%] vs 35 [31.0%], P<0.0001) and numerically more patients in the RZB group were bio-experienced (27.2% vs 23.0%). At Month 19, the mean PASI (0.8 vs 1.8; P=0.0301) and sPGA scores (0.6 vs 1.0; P=0.0215) were statistically significantly lower in patients receiving RZB than in patients receiving other biologics (Table). At Month 19, patients with a PASI score >10 was lower in patients receiving RZB (2.2% vs 11.0%; P= 0028). Also, the proportion of patients achieving an >90% improvement in PASI (PASI90; 79.7% vs 75.3%; P=0.4475), PASI75 (95.1% vs 82.2%; P=0.0009), PASI100 (62.6% vs 47.9%; P=0.0314), and a sPGA of clear (score 0; 63.2% vs 47.9%; P=0.0254) was higher in patients receiving RZB. Finally, patients in the RZB group had a statistically significantly lower DLQI score at Month 19 than patients in the other biologic group (1.7 vs 3.2; P=0.0378).

Conclusion: Canadian patients treated with RZB demonstrated durable reduction in psoriasis symptoms over 19 months, achieved significantly higher treatment targets and quality of life improvements.

Table: Effectiveness Outcomes at Month 19 in Canadian Patients Receiving RZB Compared with Other Biologics Treatments

Endpoint	RZB 150 mg N=182	Other Biologics N=73	P-value (t-test)
PASI score, mean (SD)	0.8 (1.54)	1.8 (4.06)	0.0301
PASI >10, n (%)	4 (2.2%)	8 (11.0%)	0.0028
PASI75, n (%)	173 (95.1%)	60 (82.2%)	0.0009
PASI90, n (%)	145 (79.7%)	55 (75.3%)	0.4475
PASI100, n (%)	114 (62.6%)	35 (47.9%)	0.0314
sPGA score, mean (SD)	0.6 (0.96)	1.0 (1.10)	0.0215
sPGA score 0, n (%)	115 (63.2%)	35 (47.9%)	0.0254
sPGA score 0/1, n (%)	142 (78.0%)	53 (72.6%)	0.3564
DLQI score, mean (SD) [n]	1.7 (3.09) [177]	3.2 (5.76) [73]	0.0378

DLQI, Dermatology Life Quality Index; PASI, Psoriasis Area Severity Index; PASI75/90/100, improvement of >75%/90%/100% in PASI score; RZB, risankizumad; sPGA, static Physician's Global Assessment
Analysis performed on the effectiveness analysis set consisting of all patients fulfilling all selection criteria and having a PASI greater or equal to 5 (presence of moderate to severe psoriasis symptoms) who were treated with RZB or other biologics including biosimilars (according to their treatment during the study documented at baseline) and who had at least one post baseline measurement.
P-values are nominal and there were no adjustments for multiple comparisons.



Abstract N°: 695

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 inhibitor, in plaque psoriasis: 3-year Psoriasis Area and Severity Index outcomes in the long-term extension of the phase 3 POETYK PSO-1 and PSO-2 trials

Linda Stein Gold[1], Subhashis Banerjee[2], Matthew Colombo[2], Renata M. Kisa[2], Victoria Berger[2], Kim Hoyt[2], Jennifer Soung[3], Tiago Torres[4], Neal Bhatia[5], Brad Glick[6], Mark D. Kaufmann[7]

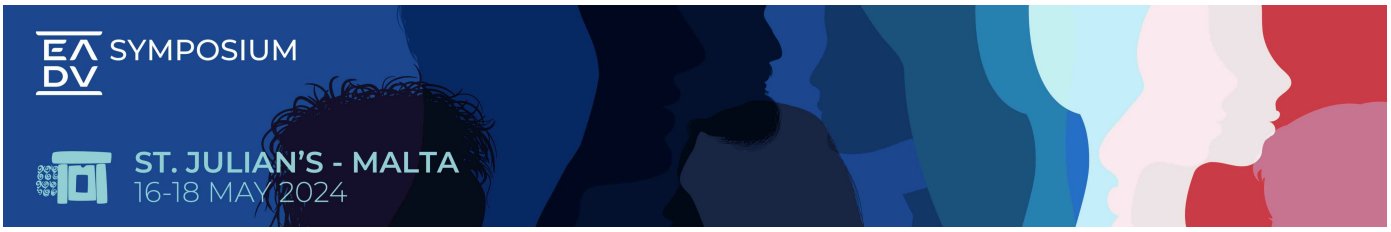
[1]Henry Ford Health System, West Bloomfield, MI, USA,[2]Bristol Myers Squibb, Princeton, NJ, USA,[3]Southern California Dermatology, Santa Ana, CA, USA, [4]Centro Hospitalar Universitário do Porto, University of Porto, Porto, Portugal, [5]Therapeutics Clinical Research, San Diego, CA, USA, [6]Glick Skin Institute, Wellington, FL, USA,[7]Icahn School of Medicine at Mount Sinai, New York, NY, USA

Introduction & Objectives: Deucravacitinib, an oral, selective allosteric tyrosine kinase 2 inhibitor, is approved in the US, EU, and other countries for treatment of adults with moderate to severe plaque psoriasis who are candidates for systemic therapy. Deucravacitinib was efficacious and well tolerated in the global, 52-week, phase 3 POETYK PSO-1 (NCT03624127) and POETYK PSO-2 (NCT03611751) trials.

Materials & Methods: Patients were randomized 1:2:1 to oral placebo, deucravacitinib 6 mg once daily (QD), or apremilast 30 mg twice daily. At Week 52, patients could enroll in the POETYK long-term extension (NCT04036435) trial and receive open-label deucravacitinib 6 mg QD. Efficacy was evaluated in patients (n=513) who received continuous deucravacitinib from Day 1 of the parent trials for up to 3 years (Week 148), as of the data cutoff date (June 15, 2022). Outcomes included mean change from baseline Psoriasis Area and Severity Index (PASI), analyzed using modified baseline observation carried forward, and proportions of patients achieving treat-to-target absolute PASI thresholds.

Results: From a mean (SD) baseline PASI score of 21.1 (7.9), improvements were observed beginning at Week 1 (mean change, −3.2 [4.9]) through Week 16 (−15.7 [9.0]), were further improved through Week 52 (−17.6 [8.0]), and were maintained through Week 148 (−16.4 [8.7]). Proportions of patients achieving 75%-80% reduction from baseline in PASI (75<80), 80<85, 85<90, 90<95, and 95≤100, treat-to-target absolute PASI thresholds of ≤1, ≤2, ≤3, ≤4, and ≤5, and absolute PASI of >1 to ≤3 and >3 to ≤5 were increased/maintained from Week 16 through Week 52 and subsequently through Week 148.

Conclusion: Efficacy outcomes in PASI scores and at treat-to-target thresholds were clinically meaningful through 3 years of continuous deucravacitinib treatment.



Abstract N°: 757

AI Versus Dermatologist Performance in Psoriasis Body Surface Area Assessment: a Ground Truth-Validated, Anatomical Segment-Based Comparative Study (AI PASS).

Maksym Breslavets*[1], Tetiana Sviatenko[2], Denys Breslavets[3], Nataliia Hrechkina[2], Tetiana Motashko[2], Tatiana Lapa[4], Ganna Borodina[5], Alina Breslavets[6]

[1]Centre for Medical and Surgical Dermatology, Whitby, Canada, [2]Tsentr Dermatolohiyi Ta Kosmetolohiyi Profesora Svyatenko, Dnipro, Ukraine, [3]Georgia Institute of Technology, Atlanta, United States, [4]University of Toronto, Toronto, Canada, [5]NYC Health + Hospitals/South Brooklyn Health, United States, [6]London School of Hygiene & Tropical Medicine, United Kingdom

Introduction & Objectives:

Psoriasis is a complex disease, and its management often relies on accurate assessment of affected body surface area (BSA) and extent in body regions. However, traditional methods based on dermatologist expertise can be subjective and variable. This study compares an automated dermatological analysis Artificial Intelligence (AI) system against human dermatologists in evaluating psoriasis BSA and regional spread. We hypothesize that the AI system's ability to consistently apply predefined algorithms offers a more standardized and replicable approach to BSA assessment, potentially reducing variability inherent in human assessment.

Materials & Methods:

We analyzed 35 anonymized, color photographs of psoriasis patients from a dermatology clinic archive (Institutional Research Ethics Board approval obtained). Images depicted front or back views for assessing psoriasis extent across anatomical segments. Three dermatologists estimated BSA and the extent of psoriasis within standard anatomical regions, compared against the AI system and a consensus-based ground truth (GT) from three independent dermatologists.

Our custom-built full-body dermatological analysis system uses a DensePose implementation for anatomical region segmentation. Overlapping-patch processing within each region facilitates high-resolution disease severity and spread analysis. A custom-trained semantic-segmentation UNet 3+ model with deep supervision assesses disease spread within each body region, aggregating values for full-body evaluation.

Results:

System-generated masks demonstrated high accuracy against dermatologist-reviewed GT annotations, with mean Intersection over Union (IoU) and Dice coefficients of 0.858 and 0.917, respectively. Class-specific analysis yielded the following IoU and Dice coefficients: background (0.989, 0.995), healthy skin (0.895, 0.943), and psoriasis (0.689, 0.812) visualized in Figure 1, indicating strong performance across classes.

The AI system exhibited high correlation with the GT (Pearson: 0.959, Spearman: 0.969) and low error (Mean Absolute Error (MAE): 0.668, Root Mean Square Error (RMSE): 1.514), outperforming human dermatologists. To assess statistical significance, absolute errors were calculated for each subject (Figure 2). The AI's MAE had a 95% Confidence Interval (CI) of [0.463, 0.872], significantly narrower than those of the physicians. Non-parametric analysis (Kruskal-Wallis H test, followed by Bonferroni-adjusted Mann-Whitney U tests) confirmed the AI's median error distribution was significantly different from all dermatologists ($p < 0.001$).

Conclusion:

The study's results indicate the potential of AI-assisted full-body dermatological analysis despite the study's limitations,

which include a small photograph sample, the lack of diverse skin type representation, and a focus on typical psoriasis presentations. The AI system demonstrates value as an adjunctive tool to enhance consistency and precision in skin evaluations, potentially reducing inter-rater variability during diagnosis and disease progression monitoring.

Appendix:

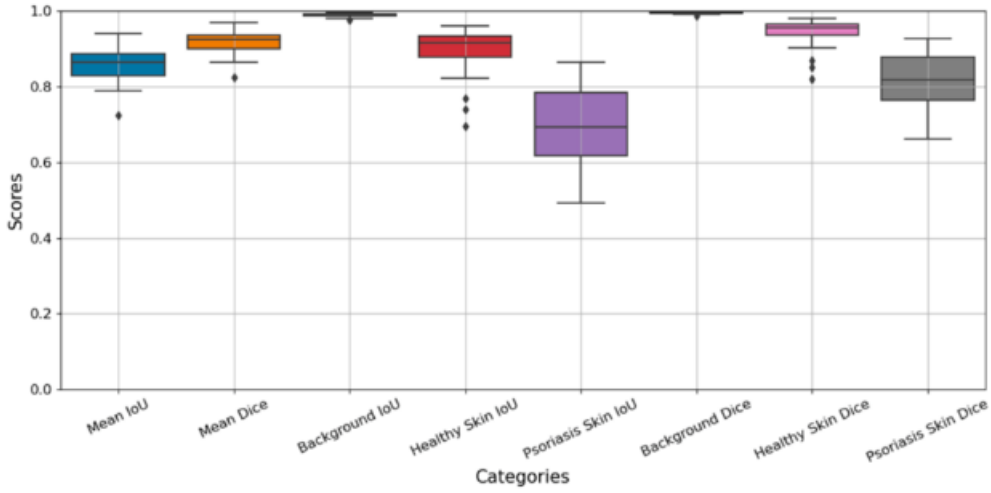


Figure 1: Segmentation performance evaluated by IoU and Dice scores. Box plot represents Intersection over Union (IoU) and Dice scores for overall performance and across background, healthy skin, and psoriasis classes. Whiskers indicate score range. High scores and narrow ranges suggest excellent segmentation accuracy.

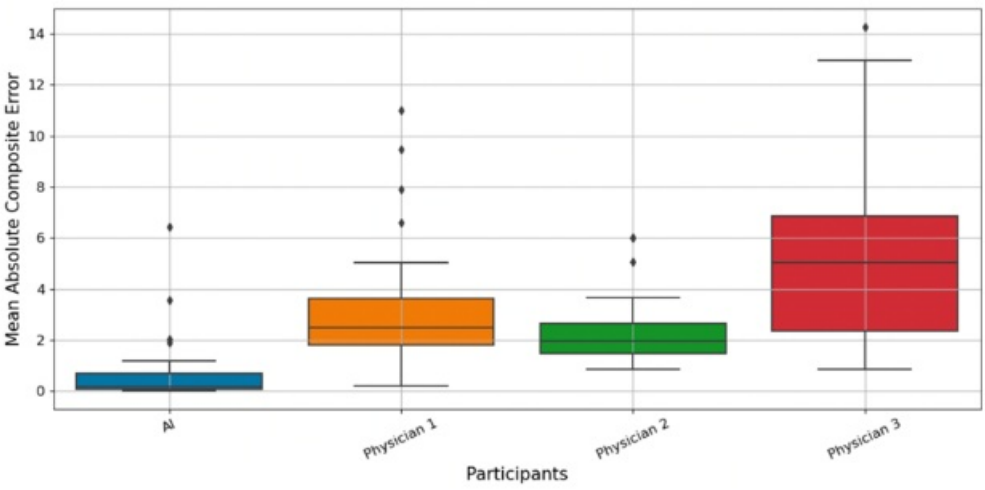
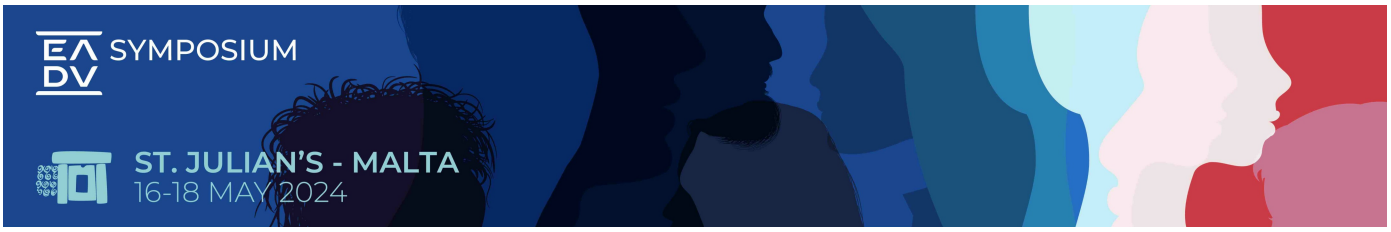


Figure 2: Absolute error comparison between AI system and physicians. Box plot displays mean absolute composite errors in BSA assessment against the GT. Whiskers illustrate the error range. The AI system demonstrates the lowest mean error.



Abstract N°: 765

Cytokine Status Indicators in Patients with Psoriasis under Various Treatment Modalities

Yanina Kutasevych[1], Svitlana Dzhoraieva[1], Olha Oliinyk[1]

[1]State Establishment "Institute Of Dermatology And Venerology Of National Academy Of Medical Sciences Of Ukraine", Kharkiv, Ukraine

Introduction & Objectives: Psoriasis, is a widespread chronic inflammatory skin disease. The conduct of research on the dynamics of immunological disorders and cytokine regulation imbalance in intercellular interactions during treatment is relevant.

Materials & Methods: A total of 60 patients (24 women and 36 men, aged 18 to 67) with psoriasis were divided into 4 groups: Group I (20 persons) included patients not receiving immunosuppressive therapy (IST); Group II (17 persons) included patients receiving cytostatic therapy (CT); Group III (12 persons) included patients receiving systemic glucocorticoids (SGCs) and CT; Group IV (11 persons) included patients receiving only SGCs. A control group comprised 17 practically healthy individuals of corresponding age and gender. Levels of IL-6, IL-8, and IL-10 were measured in the blood serum before and after treatment in all groups.

Results: Before treatment, in all groups, there was a significant elevation in IL-6 levels by 2.4–2.9 times, indicating an acute inflammatory phase and active psoriatic process. Depending on the treatment, a trend of reducing IL-6 levels was observed in all patient groups, with the least reduction in Group IV (11.9 ± 1.4 pg/ml vs. 9.1 ± 1.0 pg/ml), despite SGCs being potent anti-inflammatory agents. Group III showed a slight difference (13.2 ± 2.0 pg/ml vs. 8.7 ± 0.9 pg/ml), and Group II exhibited a significant reduction (14.2 ± 1.8 pg/ml vs. 8.9 ± 1.0 pg/ml, $p \leq 0.02$).

In the investigation of the anti-inflammatory cytokine IL-10, a significant increase was observed in all patient groups compared to the control group by 3.2–4.2 times ($p \leq 0.05$). After treatment, IL-10 levels in patients from Groups II-IV significantly decreased but exceeded the control group by more than 2 times (14.7 ± 1.8 pg/ml vs. 9.0 ± 0.8 pg/ml, 16.8 ± 2.8 pg/ml vs. 9.9 ± 0.9 pg/ml, 4.1 ± 0.6 pg/ml vs. 11.9 ± 0.9 pg/ml, respectively, $p \leq 0.02$; $p \leq 0.005$). There was a tendency to decrease in Group I patients (10.2 ± 1.1 pg/ml vs. 12.7 ± 1.3 pg/ml, $p \geq 0.01$).

In the examination of IL-8 levels in the patients' sera before receiving IST, an increase was observed in all groups by 2.6–3.6 times compared to the control group of healthy individuals. After therapy in Groups II–IV, a significant decrease in IL-8 concentration in patients' sera to reference values was observed (9.4 ± 0.7 pg/ml; 8.7 ± 0.7 pg/ml; 10.3 ± 0.6 pg/ml, respectively, $p \leq 0.001$; $p \leq 0.03$), with less reduction when using SGCs.

Conclusion: The tendency towards a less significant effect of SGCs on normalizing the cytokine status, compared to CT and even therapy without immunosuppressive agents, indicates a clinically justified position regarding the inappropriateness of widespread use of SGCs in psoriasis treatment, despite their potent anti-inflammatory effect. This effect in psoriasis often has a temporary nature and may lead to complications in the disease course in the future.

Abstract N°: 887

Metabolomics analysis of serum fatty acids: Finding new biomarkers as potential predictive factors for clinical course of psoriasis

Parvaneh Hatami[1], Nafiseh Esmaeli[1], Zeinab Aryanian[1, 1, 1]

[1]TUMS, Iran

Introduction & Objectives:

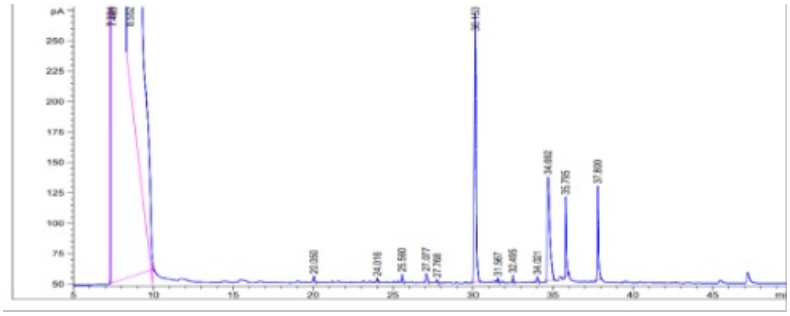
Psoriasis is a prevalent inflammatory dermatosis with possible systemic involvement. Metabolomics defines as an extensive study of all low molecular weight metabolites in human body which has recently led to better understanding of the pathogenesis of different disease.This study was conducted to evaluate the targeted lipidomics in sera of patients versus healthy controls.

Materials & Methods:

The study included 64 patients with psoriasis and 64 age- and sex-matched healthy controls. All the participants underwent a targeted lipidomics on their sera using Gas Chromatography with flame-ionization detection (GC-FID). The clinical importance of serum level of lipids was also dealt with.

Results:

Serum level of all tested fatty acids (except for METHYL VACCENATE) in patients was higher than healthy controls, though this difference was significant only for METHYL PALMITATE, METHYL OLEATE and METHYL LINOLEATE (P values: 0.002, 0.001 and 0.001 respectively). Based on our results, the serum levels of METHYL OLEATE, METHYL LINOLEATE, METHYL PALMITATE and METHYL STEARATE could significantly be used for predicting the disease severity (P values: 0.009, <0.005, 0.02 and 0.001, respectively). METHYL MYRISTOLEATE, METHYL 11-14-17-EICOSATRIENOATE and METHYL LINOLEATE were the fatty acids which their serum levels were significantly predictive of duration of disease (P values: 0.018, <0.005 and 0.009, respectively).



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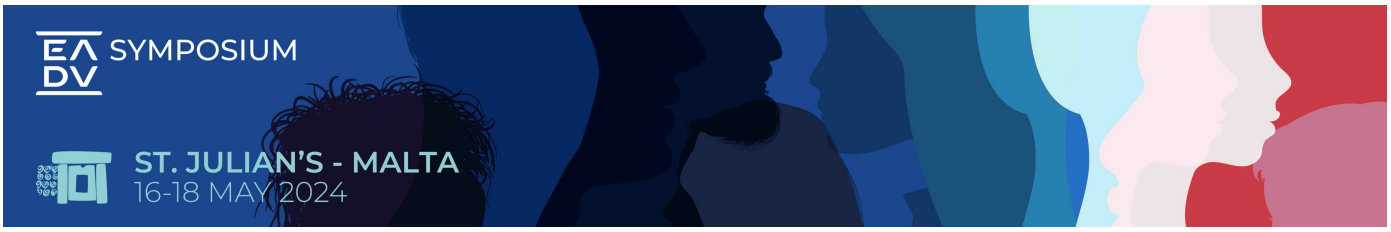
Conclusion:

Our findings suggest that circulating specific lipids have different serum levels in psoriasis patients in comparison with healthy controls. We suggest the serum METHYL LINOLEATE as a new and important biomarker to evaluate psoriasis severity and prognosis.



Abstract N°: 894

Adherence to the Mediterranean diet in patients with psoriasis and its relationship with the severity of the disease

Parvaneh Hatami[1], Zeinab Aryanian[1]

[1]TUMS, Iran

Introduction & Objectives:

Psoriasis is a common chronic inflammatory disease of skin that is associated with chronic systemic inflammation and an increased risk of cardiovascular disease. The Mediterranean diet has been recommended as a healthy diet and has been shown to reduce chronic inflammation.

This study was conducted to investigate the adherence of psoriasis patients to the Mediterranean diet and its relationship with the severity of the disease.

Materials & Methods:

71 psoriasis patients and 71 age- and sex-matched healthy controls were enrolled the study and filled a standard questionnaire of adherence to the Mediterranean diet. The relationship between disease severity and adherence to the diet was also dealt with.**

Results:

The Mediterranean diet adherence score in the psoriasis group (5.25 ± 1.64) was significantly lower than the control group (6.28± 2.10) (P = 0.004). In addition, the consumption of fruit and fish in psoriasis patients was significantly lower than the control group and the consumption of red meat was significantly higher in the patient group. No significant relationship was found between the severity of the disease and the score of adherence to the Mediterranean diet (P = 0.42).

Questionnaire score in each group **Variables**	**Psoriasis**	**Control**	**P -value**
Sex	Male	5.1±14.77	5.1±33.88
	Female	5.1±33.56	6/2±77/06
Age	<38	5.1±48.70	6.2±24.18
	≥38	4.1±89.50	6.1±35.99
Marital status	Single	5.1±31.43	6.1±66.94
	Married	5.2±14.07	5.2±17.22
Educational status	Without diploma	5.1±26.78	6.1±55.75
	Diploma	5.1±06.66	6.1±95.76
	University degree	5.1±37.56	5.2±88.28
BMI	<18	3.0±50.70	10
	18-25	5.1±61.67	6.2±32.07
	25-30	5.1±27.35	6.2±47.27
	≥30	4.1±64.86	5.1±50.40

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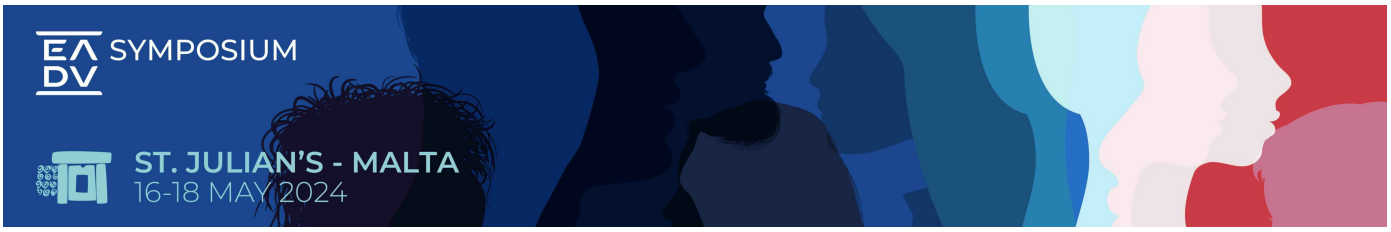
Conclusion:

A significant difference between the two groups of psoriasis and the control group following the Mediterranean diet might be indicative of the relationship between diet and psoriasis and the potential benefits of this type of diet due to its anti-inflammatory properties.



Abstract N°: 1047

Real-world evidence concerning the efficacy and safety of bimekizumab in the treatment of moderate-to-severe plaque psoriasis in Polish population

Wiktor Kruczek[1], Natalia Tekiela[1], Karina Polak[2], Bartosz Miziołek[2], Beata Bergler-Czop[2]

[1]Students Scientific Association at the Department of Dermatology, School of Medicine in Katowice, Medical University of Silesia, Katowice, Poland, [2]Chair and Department of Dermatology, Medical University of Silesia, Katowice, Poland, Poland

Introduction & Objectives:

Bimekizumab is a humanized, monoclonal IgG1 antibody that selectively inhibits interleukin-17A and interleukin-17F, used in the treatment of moderate-to-severe plaque psoriasis. The aim of the study was to demonstrate real-world data concerning the safety and efficacy of bimekizumab in the treatment of moderate-to-severe plaque psoriasis in Polish population.

Materials & Methods:

The data concerning 14 adult patients treated with bimekizumab in one of dermatology centers in Poland for moderate-to-severe plaque psoriasis were extracted between July 2023 and January 2024. All the patients prior to receiving bimekizumab received at least two systemic therapies (methotrexate, cyclosporine A, acitretin for at least 3 months or PUVA-therapy) with no adequate response or experienced side effects that lead to discontinuation of classic methods of treatment. Bimekizumab has been administered subcutaneously at a dose of 320 mg every 4 weeks. The efficacy of treatment was assessed using Psoriasis Area and Severity Index (PASI), Body Surface Area (BSA) and Dermatology Life Quality Index (DLQI) tools before every drug administration; the patients had full blood count and basic biochemistry tests done prior to treatment, after one month and every three months afterward. Statistical analysis was conducted using Statistica 13.1PL StatSoft, Tulsa, USA.

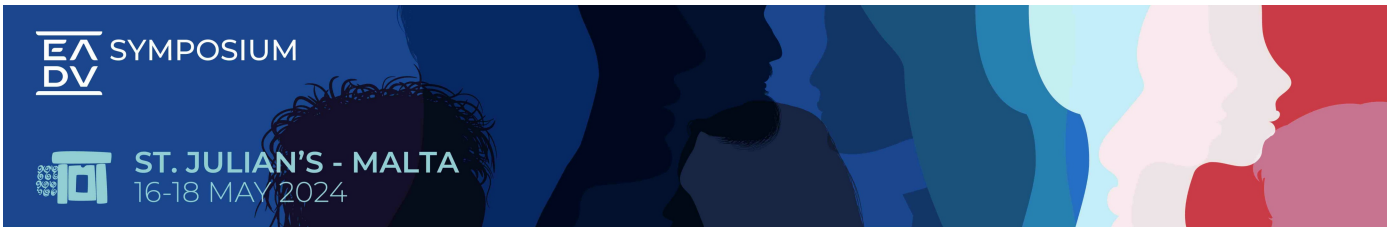
Results:

Patients aged 19-73 years (median: 45.1) were included in the analysis; 78.6% of analyzed cases were men. 2 patients had concomitant psoriatic arthritis and the average psoriasis duration period was 16.86 years. Prior to bimekizumab treatment, 85.71% of patients underwent treatment with cyclosporin A, 78,57% with methotrexate and 57.14% with acitretin with no positive clinical outcome. Average baseline PASI score was 15.63, BSA 22.32% and DLQI 20.1 points. After first bimekizumab

administration, PASI-75 (75% or more PASI reduction from baseline) has been achieved by 92.86% of patients and 85.71% of patients' DLQI score reduced to 0 with the increasing effectiveness over next months. The symptoms of psoriatic arthritis improved in both patients. No significant side effects were observed.

Conclusion:

Real-world evidence demonstrated good tolerance, safety profile and fast clinical response of bimekizumab in moderate-to-severe plaque psoriasis treatment. The preliminary results suggest that biological systemic therapy with bimekizumab could provide remission and significantly improve quality of life. However, further research on larger groups of patients and longer follow-up is necessary.



Abstract N°: 1076

Real-world Evaluation of Deucravacitinib Therapy for Moderate to Severe Plaque Psoriasis: Insights from a District General Hospital in the UK

Byung Jin Kim*[1], Emily Davies[1]

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Real-world Evaluation of Deucravacitinib Therapy for Moderate to Severe Plaque Psoriasis: Insights from a District General Hospital in the UK

Introduction & Objectives:

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 inhibitor, has gained approval in the UK and several other countries for the treatment of moderate to severe plaque psoriasis. Due to its recent approval, real-world data are limited. This study evaluates compliance with the 2023 NICE guideline on "Deucravacitinib for treating moderate to severe plaque psoriasis" in the dermatology department of a District General Hospital in the UK.

Materials & Methods:

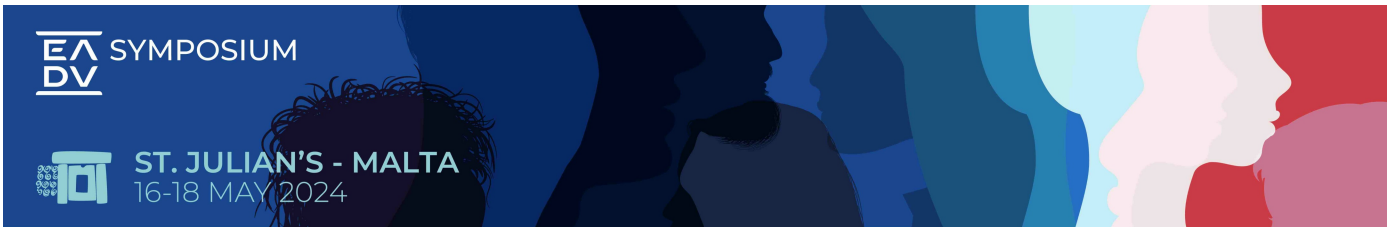
All patients initiated on Deucravacitinib before February 2024 were included in the study. Data on compliance with recommendations outlined in the 2023 NICE guideline, as well as patient demographics, disease site and pre-treatment screening were collected and analysed.

Results:

Of 20 patients initiated on Deucravacitinib 6mg once daily between October 2023 and January 2024, with a median age of 55.5 years (range 25-79), 50% (10/20) were male. The most affected sites by psoriasis were the scalp (13/20 patients), limbs (13/20), and trunk (12/20). Pre-treatment evaluation for tuberculosis was completed in 90% (18/20) of patients by either chest x-ray or serum T-SPOT. 90% (18/20) underwent screening for HIV, hepatitis B, and hepatitis C serology, and 65% (13/20) were assessed for varicella zoster (VZV) immunity. Baseline full blood count, renal function, and liver function blood tests were completed in all 20 patients. The number of systemic treatments trialled before Deucravacitinib, including phototherapy, ranged from 1 to 11 (median=3). Phototherapy was the most common first-line systemic treatment (50%; 10/20), followed by methotrexate (30%; 6/20). At week 0 of initiating Deucravacitinib, Psoriasis Area and Severity Index (PASI) scores were recorded in 65% (13/20) of patients, with a median PASI score of 5.4 (range 1.8-37.2). Dermatology Life Quality Index (DLQI) scores at week 0 were documented in 35% (7/20) of patients, with a median DLQI score of 12 (range 7-20).

Conclusion:

Our study cohort exhibited a diverse demographic profile, encompassing individuals across a wide age range and both sexes equally. Pre-treatment evaluations for clinically significant active infections and baseline blood tests were nearly universal among participants, although some patients did not undergo assessment of VZV immunity. All patients had previously received at least one systemic therapy before switching onto Deucravacitinib. Documentation of PASI and DLQI scores, ideally at each consultation, should be improved to allow objective assessment of treatment response. Due to the absence of a washout period in real-world practice and involvement of clinically high impact sites, PASI or DLQI thresholds were not always met at Deucravacitinib initiation for patients.



Abstract N°: 1127

Deucravacitinib - a new promising small molecule drug in the treatment of psoriasis

Mikołaj Łanocha[1], Bartosz Miziołek[2], Karina Polak[2], Aleksandra Frątczak[2], Beata Bergler-Czop[2]

[1]Department of Dermatology, Public Independent Clinical Hospital of Andrzej Mielęcki, Department of Dermatology, Katowice, Poland, [2]Medical University of Silesia, Katowice, Poland

Introduction & Objectives:

Psoriasis is an immune-mediated skin disease with possible joint involvement, characterized by chronic papulosquamous lesions with a notable prevalence across all age groups. While mild cases often respond well to topical treatments, systemic therapies become necessary for moderate-to-severe conditions. Our study aims to assess the safety and efficacy of the novel selective tyrosine kinase 2 inhibitor, deucravacitinib.

Materials & Methods:

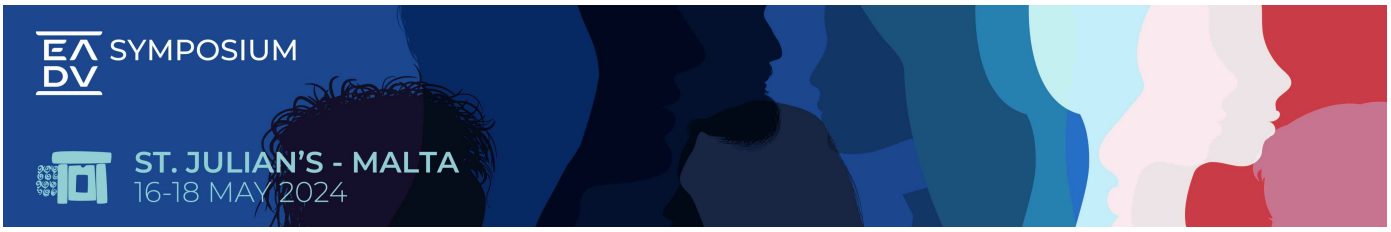
We conducted a comprehensive literature review using EMBASE and MEDLINE databases, utilizing keywords such as “deucravacitinib”. Our search strategy encompassed broad criteria, employing EMTREE and MESH approaches. Inclusion criteria comprised original trials, case reports, and case series published in English up to January 2024. Initial searches yielded 217 results in EMBASE, 10 in MEDLINE, and 185 in both databases, which underwent further analysis alongside manual research. Ultimately, four articles meeting our criteria, including one Phase 2 Clinical Trial, two Phase 3 Clinical Trials, and one real-world retrospective study, involving 1986 patients, were included in the final analysis.

Results:

Patients across all studies experienced improvements in both PASI and DLQI scores when treated with deucravacitinib. PASI 75, PASI 90 and PASI 100 were achieved by a range of 53,0% to 78,3%, 27,0% to 52,2% and 10,2% to 14,2% of patients, respectively. Rates of DLQI 0/1 achievement ranged from 37.6% to 42.9%. Furthermore, one study noted a median 71,4% decrease in pruritus among participants. Adverse events occurred in 18,2% to 57,5% of patients, with nasopharyngitis (6.3% to 10.8%) and upper respiratory tract infections (4.9% to 6.3%) being the most common.

Conclusion:

Although inhibitors of IL-17, IL-12/23, IL-23 and TNF-alpha signaling pathways revolutionized psoriasis treatment, their high cost limits their use as the first line systemic intervention. Standard treatment options include methotrexate, cyclosporine, acitretin and fumaric acid. They are cheap, but their efficacy is frequently unsatisfactory. In addition, organ toxicity as well as interactions with other drugs may limit their use in subpopulations of patients with psoriasis. In light of these challenges, ongoing research aims to discover new and improved drugs for psoriasis management. One recent advancement is deucravacitinib, a selective inhibitor of tyrosine kinase 2 (TYK2), a member of the Janus kinase (JAK) family, which mediates intracellular signaling from various cytokines, including type I interferons (IFNs), IL-12, and IL-23. Studies have demonstrated deucravacitinib’s superiority over placebo in various measures, indicating its potential as a safe and effective option for moderate-to-severe plaque psoriasis. Utilizing molecular therapies like deucravacitinib, which target the underlying pathology of psoriasis, may offer improved outcomes compared to traditional treatments. Deucravacitinib emerges as a compelling option alongside other biologic medications.



Abstract N°: 1165

Features of changes in the microbial landscape in patients with psoriasis

Hennadiy Astsaturov , Orysya Syzon , Marianna Dashko , Iryna Babak , Iryna Chaplyk-Chyzho

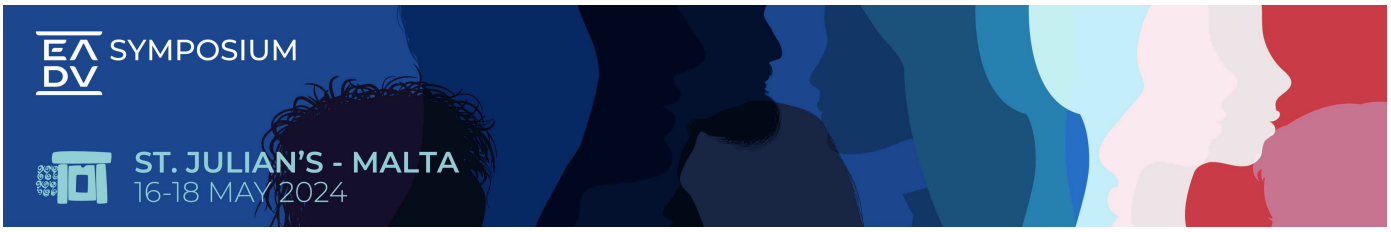
Introduction & Objectives: Changes in the macroorganism state are reflected in the disorders of microbial landscape of all topographical skin zones. It should be noted that the study of the skin microbial landscape in patients with psoriasis have episodic and unstructured nature. Thus, it is claimed that the findings of the skin microbiocoenosis disorder in patients with psoriasis are characterized by changes in the quantitative and qualitative spectrum of microorganisms.

The purpose of our work was to investigate the quantitative composition of microscopic flora and the degree of skin induration of patients with psoriasis, depending on the clinical course (clinical form, stage) and duration of the disease.

Materials & Methods: The study of the skin microscopic flora was performed from the lesions in 38 patients with psoriasis, which were under observation. 26 apparently healthy persons formed the control group. The material was taken using a replica plating method with subsequent microbiological identification of microorganisms.

Results: It has been established that patients with psoriasis, which were under observation, had the skin microbial landscape of the lesions formed mainly of *S. aureus, S. epidermidis, S. saprophyticus, Bacillus and Micrococcus genera.*The clearest microbial contamination of the lesions has been observed in psoriatic erythroderma, slightly less accentuated skin microbial contamination has been found in patients with the widespread form and the presence of arthropathy, and the least number of microorganisms have been found in patients with common psoriasis without complicated phenomena. The progressive stage of psoriasis has been characterized by a higher level of microbial contamination. It has been established that patients with psoriasis have a very significant dependence of contamination degree of *S.aureus, S.epidermidis and S.saprophyticus* from the duration of dermatitis course, the growth of which had contributed to the intensification of microbial contamination. Thus, the highest level of microbial contamination have been observed in patients with erythroderma, progressive stage of the pathological progress and duration of the disease for more than 10 years.

Conclusion: The results of the study have shown that the dominant components of the skin microbial landscape of the lesion in patients with psoriasis are *Staphylococcus aureus* and *Staphylococcus epidermidis*, which allows them to be considered as the trigger factors of the pathological process. It has also been proved that the skin microbial contamination of the lesions in patients with psoriasis has an accentuated dependence from the clinical course and the duration of dermatitis.



Abstract N°: 1167

Immune complex character pathogenesis of psoriatic disease

Hennadiy Astsaturov , Orysya Syzon , Marianna Dashko , Iryna Chaplyk-Chyzho , Solomiya Turkevich

Introduction & Objectives: The effect of changes in cytokine profile is admitted to be an integral pathogenic mechanism of psoriasis. In this case, we believe that it makes sense to study the levels IL-4, IL-10, IL-8 and TNFα. The first two have an anti-inflammatory effect. IL-4 suppresses cytokine synthesis and shows an apparent antiproliferative potential. IL-10 also does some inhibitory activity towards cytokines, but at the same time it is an immunosuppressive agent. IL-8 belongs to the main chemokines. TNFα is a part of a group of anti-inflammatory cytokines and shows cytolitic and antineoplastic effects.

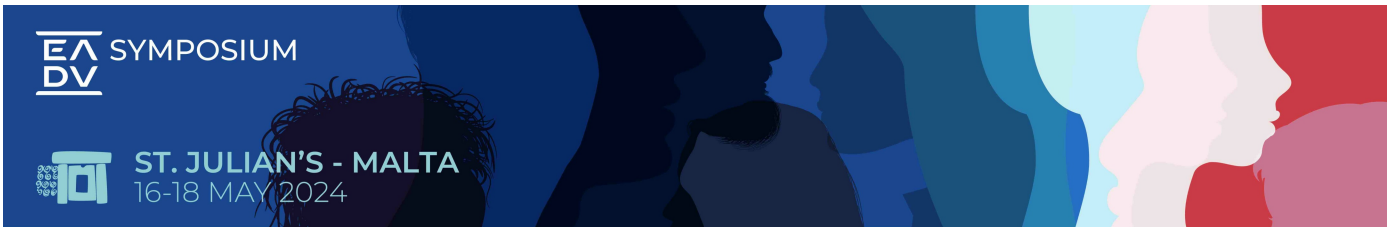
Endocrine disorders hold the leading position in pathogenesis of psoriasis. In particular, there has been observed lately an increase in the level of thyreopaties, which is considered to beconnected with environmental deterioration. Thyroiddisorders, associated with both its suppression and functional improvement are characterized with the appearance of autoimmune reactions, and circulatory antibodies to thyroglobulin (Tg). In this aspect, we consider it to be prospective, to examine the antibodies to thyroidperoxidase (TPO) and Tg in the patients with psoriasis.

Materials & Methods: The study group consisted of 42 patients with psoriasis (24 men and 18 women) aged 19 to 68 years. The disease duration ranged from 6 months to 21 years. The progressive psoriasis was stated in 31 patients, and stationary one – 11. Formed the control group 18 healthy subjects of comparable age and sex. The levels of IL-4, IL-8, IL-10, TNFα and autoantibodies to thyroid peroxidase (TPO) and thyroglobulin (Tg) were determined.

Results: Unidirectional nature of the cytokine changes, owning different spectrum was discovered, indicating the accent and systemic immunological disorders in psoriasis and their dependence on the clinical course characterizes some specificity of the violations. In order to further investigation of revealed immunological changes we studied the contents of autoantibodies to TPO and Tg. The accented dependence content of autoantibodies to TPO and Tg on the clinical course of psoriasis prompted us to consider the correlation relationship between it and cytokine activity, resulting into a recorded close relationship between the content of cytokines and autoantibodies to Tg.

Conclusion: 1. As a result of the study, it is shown that the increase in blood IL-4, IL-8, IL-10 and TNFα and changing levels of autoantibodies to TPO, Tg, reflecting a associativity with the clinical course of psoriasis, and is most accentuated in the presence of erythroderma, arthropathy and progressive stage dermatosis.

\2. The close correlation between the content of the association of cytokines and autoantibodies to content TPO and Tg, which ranges from r = +0,27 to r = +0,79, shows the concordance of immunological disorders and confirms the assumptions regarding, immune complex character pathogenesis of psoriatic disease.



Abstract N°: 1189

Nail involvement in Pediatric Psoriasis – A retrospective study

Mihaela Mănăilă[1, 2], Adelina-Maria Sendrea[1, 2], Alina Suru[1, 2], Carmen Maria Salavastru[1, 2]

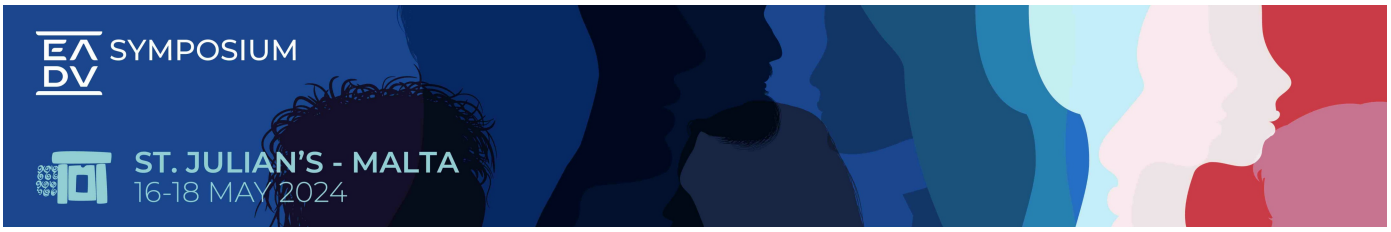
[1]Colentina Clinical Hospital, , Pediatric Dermatology, Romania,[2]"Carol Davila" University of Medicine and Pharmacy

Introduction & Objectives: Psoriasis is a chronic immune-mediated inflammatory skin disease with multiple phenotypically distinct subtypes that has a major genetic component. Onset of psoriasis in childhood is quite common and it is well-known that it can affect the nails. Although statistics about frequency may vary, nail involvement is associated with more severe disease, palmoplantar psoriasis and psoriatic arthritis. Nail psoriasis is classified by the involvement of the nail matrix or the nail bed. Clinical signs of nail matrix involvement are pitting, leukonychia, red spots in lunule, onychorrhexis, Beau lines and nail crumbling. On the other hand, nail bed involvement is recognized by oil-drop sign and salmon patch, onycholysis, subungual hyperkeratosis and splinter hemorrhages under the distal third of the nail plate. Other clinical signs of psoriatic nails are paronychia due to periungual psoriasis, acrodermatitis continua of Hallopeau and twenty-nail dystrophy. The aim of this paper is to evaluate and quantify nail psoriasis in our cohort of patients.

Materials & Methods: A** retrospective, transverse study was performed on 74 patients with various clinical manifestations and severity of nail involvement from nail pitting to oil stain or extensive subungual hyperkeratosis. The study was carried out from January 2019 to January 2024 in the Pediatric Dermatology Department of our hospital.

Results: Our cohort had 74 subjects and we noticed a small imbalance regarding gender distribution (56,76% female and 43,24% male), so female pediatric population tend to be more affected. Most of the patients lived in the urban area. As for the average age of the disease onset it was 7 years old, with the earliest psoriatic lesions debut at 4 months old and the latest at 16 years old. The overwhelming majority of cases were psoriasis vulgaris, a quarter of them approximatively affecting palms and soles. There were also some complex cases which showed both elements of guttate and inverse psoriasis at the same time. Surprisingly the highest PASI score correlates with the involvement of only one nail showing pitting. All of the patients tried topic therapy, 7 of them were treated with phototherapy, 5 of them with methotrexate and 4 underwent biologic treatment with Ixekizumab or Adalimumab. Psoriasis nail involvement studied in this paper consisted of pitting (59 patients), subungual hyperkeratosis (16 patients), trachionychia (15 patients), oil stain (14 patients) but also splinter hemorrhage (4 patients) and onycolysis (3 patients). In almost half of the cases the nail disease was extensive affecting 10 or more nails, most of them from hands. Knowing the implications of nail involvement, we discovered that 4 of our patients developed psoriatic arthropathy. Regarding the family history, ~42% of the patients had a relative suffering from psoriasis. Because of the correlation of nail involvement with arthritis and more severe disease we evaluated the inflammation by tracing high levels of ESR. ~30% of the patients were discovered having inflammatory syndrome.

Conclusion: It is very important to check for nail changes in patients diagnosed with psoriasis. Firstly, because nail involvement can be a initial sign of arthritis which must be addressed as soon as possible. Secondly, treating nail psoriasis is challenging and takes time. Patients may have trouble performing daily activities so that it is desirable to assess it and treat it before reaching this stage.



Abstract N°: 1192

Value-Based Healthcare in Psoriasis: the impact of working in an Integrated Practice Unit on patient-relevant outcomes

Emma Vyvey*[1, 2], Elfie Deprez[1, 2], Julie Depelseneer[1, 2], Joke Borzée[3], Rani Soenen[1, 2], Jo Lw Lambert[1, 2]

[1]Ghent University Hospital, Ghent, Belgium, [2]University of Ghent, Ghent, Belgium, [3]Vlerick Business School, Ghent, Belgium

Introduction & Objectives:

Value-Based Healthcare (VBHC) aims to optimize the healthcare system by focusing on improving patient-relevant outcomes while minimizing costs. Psoriasis is a chronic inflammatory skin disease, known to be associated with a large impact on patients' quality of life and high management costs. As a systemic skin disease, psoriasis is also associated with numerous comorbidities, such as anxiety and depression, psoriasis arthritis or blood lipid abnormalities. Seeing the high impact, integrated care is needed to optimize patient-relevant outcomes. By implementing the principles of VBHC in practice and introducing Integrated Practice Units (IPU), we aim to optimize these outcomes. The Value in Psoriasis (IRIS) Trial thereby aims to assess the impact of working in an IPU on the patient-relevant outcomes of patients with psoriasis.

Materials & Methods:

In this prospective clinical trial (NCT05480917), new adult patients with psoriasis vulgaris attending our IPU are followed up for one year. Patient-relevant outcomes (n = 21) are measured through a specialized patient platform and collected at baseline, after 6 and 12 months. T-tests and Mann-Whitney U tests were performed to assess the evolution in outcomes after six months of treatment.

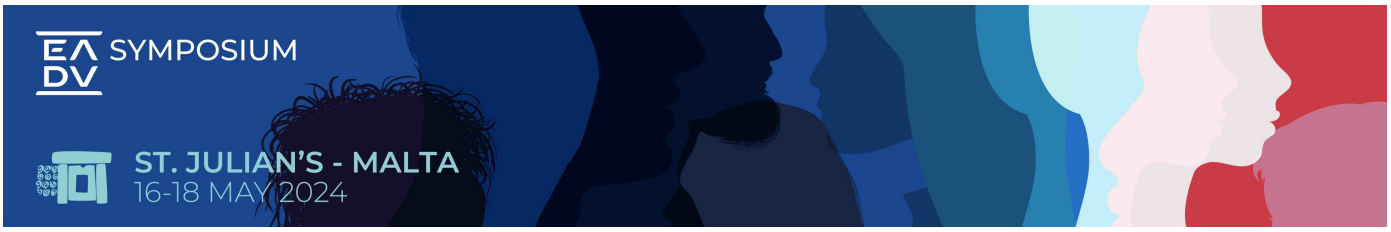
Results:

In December 2023, a total of 113 patients were included in the trial. Baseline data showed that most patients had poor comorbidity control of which anxiety (60%), dyslipidemia (55%), smoking (27%), overweight (27%) or obesity (21%) were the most common comorbidities.

A subgroup of 22 patients completed the measurement at month six. The data showed a significant improvement in the quality of life ($p < 0.001$), symptom control ($p < 0.001$) and PASI scores ($p < 0.001$). Also in communication with the healthcare professional ($p = 0.015$), patient experienced treatment efficacy ($p = 0.013$) and treatment comfort ($p = 0.019$). Among working patients, work productivity also increased but not significantly ($p = 0.166$).

Conclusion:

To our knowledge, this is the first study assessing the impact of integrated care in a comprehensive way. Our data shows that psoriasis management goes beyond the skin, indicating that an integrated approach in the form of IPUs is needed. However, a larger sample size and follow-up period is needed to manage and assess the evolution of the comorbidities.



Abstract N°: 1216

Patient Journey Through Biological Therapies in Psoriasis Vulgaris: A RetrospectivePersistence Study

Costina Cristiana Mutu[1], Elena-Daniela Serban[1], Alexandra Petruta Savu[1], Cezara-Diana Vaida[1], Stefana Bucur[1], Maria Magdalena Constantin[1]

[1]Colentina Clinical Hospital

Patient Journey Through Biological Therapies in Psoriasis Vulgaris: A Retrospective Persistence Study

Costina-Cristiana Mutu, Elena-Daniela Șerban, Alexandra-Petruta Savu, Cezara-Diana Vaida, Ștefana Bucur, Maria Magdalena Constantin

Introduction & Objectives:

With recent advances in the understanding of psoriatic disease, it is increasingly considered a systemic inflammatory condition rather than limited to the skin and joints. A variety of biologics are available today for the treatment of psoriasis, but with them, characteristics such as rapidity of onset, long-term efficacy, safety profile, and effects on comorbidities differ.

Materials & Methods:

We designed an observational, non-interventional, retrospective study of 311 patients with severe psoriasis receiving biologic treatment with IL-17A inhibitors and aimed to investigate the correlations between etiopathogenic factors and the efficacy and persistence of these therapies in a group of psoriasis patients from Romania.

Results:

Evidence from “real life” is of undeniable importance because it assesses efficacy and safety in the everyday context, which may be different (multiple comorbidities, hard-to-treat areas, etc.) than that represented by clinical trials.

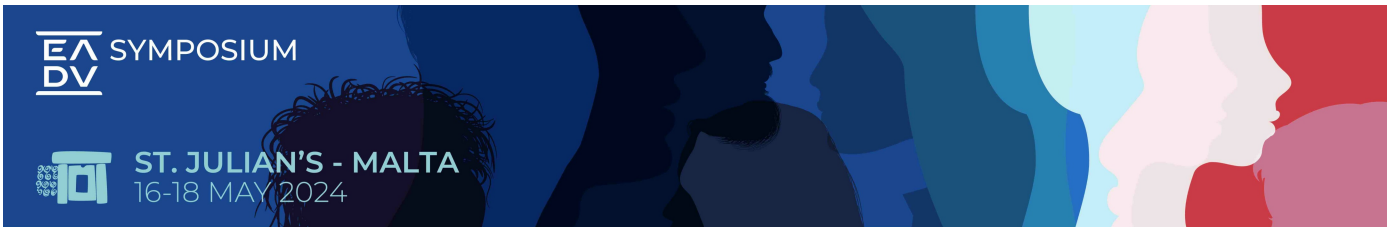
Our results provide an unbiased and real-world analysis of the persistence of anti-IL-17A therapies in a cohort of patients with severe psoriasis.

The IL-17A binding affinity could explain the differences between different molecules from the same class, and stronger binding affinity is usually related to less antibody dissociation.

This study contributes to the understanding of the persistence of anti-IL17A biologic therapies in psoriasis and the factors that may influence it.

Conclusion:

Following the association of psoriasis with multiple comorbidities, the need for comprehensive screening and treatment must be recognized and addressed. A better understanding of these characteristics leads to the correct choice of treatment for patients, leading to greater persistence, greater patient satisfaction and minimizing the impact of psoriatic disease.



Abstract N°: 1315

Chronic Psoriasis, Chronic Solution: Long-Term Treatment Success with Guselkumab. Results from a Spanish Cohort "

Rosa Maria Izu Belloso[1], Ane Lobato Izaguirre[1], Isabel Gainza Apraiz[1], Mikel Meruelo Ruano[1], Leopoldo Fernandez Domper[1], Silvia Perez Barrio[1]

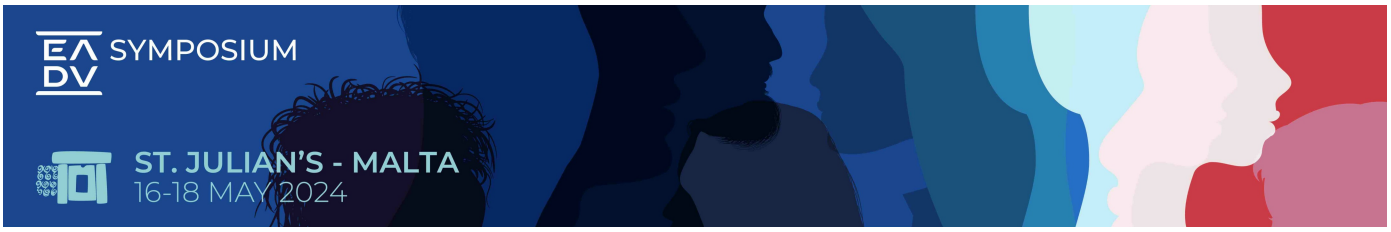
[1]Basurto University Hospital, Dermatology, Bilbo, Spain

Introduction & Objectives: Psoriasis is a chronic inflammatory skin disorder with significant impacts on patients' physical and psychological well-being. The pathogenesis of psoriasis involves complex immune system mechanisms, leading to the development of innovative biologic agents like guselkumab, targeting the IL-23/Th17 pathway. This study aims to evaluate the efficacy and safety of guselkumab in patients with moderate-to-severe psoriasis in a real-world setting in Spain.

Materials & Methods: A retrospective analysis was conducted on 52 patients treated with guselkumab. Patients had a mean psoriasis duration of 27.8 years and had previously received an average of 2.3 systemic therapies and 1.9 biologic therapies. The study focused on long-term outcomes, with a follow-up period of up to 8.8 years, assessing primary demographic characteristics, comorbidities, and previous treatments.

Results: Treatment with guselkumab significantly reduced the absolute Psoriasis Area and Severity Index (PASI) scores from baseline to week 16, with further reductions observed through week 52. At week 24, 86.5% of patients achieved PASI ≤ 3, and 73% achieved PASI ≤1. Body Surface Area (BSA) and Investigator's Global Assessment (IGA) scores also showed significant improvements. No adverse effects of interest associated with guselkumab treatment were reported.

Conclusion: The study's findings corroborate the high efficacy and safety profile of guselkumab for the treatment of moderate-to-severe psoriasis in a real-world clinical setting. The long-term data from this Spanish cohort underscore the durability of guselkumab's therapeutic benefits, with sustained improvements in PASI, BSA, and IGA scores over years of treatment. Moreover, the absence of significant adverse effects highlights guselkumab's potential as a long-term treatment option for patients seeking relief from the burdens of psoriasis.



Abstract N°: 1333

Deucravacitinib in plaque psoriasis: 4-year safety and efficacy results from the phase 3 POETYK PSO-1, PSO-2, and LTE trials

April W. Armstrong[1], Mark Lebwohl[2], Richard B. Warren[3, 4], Howard Sofen[1, 5], Akimichi Morita[6], Shinichi Imafuku[7], Mamitaro Ohtsuki[8], Lynda Spelman[9], Thierry Passeron[10], Kim A. Papp[11], Renata M. Kisa[12], Matthew Colombo[12], John Vaile[12], Eleni Vritzali[12], Kim Hoyt[12], Carolin Daamen[12], Subhashis Banerjee[12], Bruce Strober[13], Diamant Thaçi[14], Andrew Blauvelt[15]

[1]University of California Los Angeles, Los Angeles, CA, United States, [2]Icahn School of Medicine at Mount Sinai, New York, NY, United States, [3]Dermatology Centre, Northern Care Alliance NHS Foundation Trust, Manchester, United Kingdom, [4]NIHR Manchester Biomedical Research Centre, Manchester University NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, United Kingdom, [5]Dermatology Research Associates, Los Angeles, CA, United States, [6]Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan, [7]Fukuoka University Hospital Faculty of Medicine, Fukuoka, Japan, [8]Jichi Medical University, Tochigi, Japan, [9]Veracity Clinical Research, Brisbane, QLD, Australia, [10]Université Côte d'Azur, University Hospital of Nice, Nice, France, [11]Alliance Clinical Trials and Probity Medical Research, Waterloo, and the University of Toronto,, Toronto, ON, Canada, [12]Bristol Myers Squibb, Princeton, NJ, United States, [13]Yale University School of Medicine, New Haven, and Central Connecticut Dermatology Research, Cromwell, CT, United States, [14]Institute and Comprehensive Center for Inflammation Medicine, University of Lübeck, Lübeck, Germany, [15]Oregon Medical Research Center, Portland, OR, United States

Introduction & Objectives:

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, and other countries for treatment of adults with moderate to severe plaque psoriasis who are candidates for systemic therapy. Deucravacitinib was superior to placebo and apremilast in the global, 52-week, phase 3 POETYK PSO-1 (NCT03624127) and POETYK PSO-2 (NCT03611751) parent trials in moderate to severe plaque psoriasis. Upon completion of these trials, patients could enroll in the ongoing POETYK long-term extension (LTE) (NCT04036435) trial. As previously reported, patients treated with deucravacitinib maintained long-term efficacy responses through 3 years with no new safety signals versus Year 2. Here, we report safety and efficacy of deucravacitinib for an additional year through 4 years (Week 208; cutoff date of November 1, 2023).

Materials & Methods:

PSO-1 and PSO-2 randomized patients 1:2:1 to oral placebo, deucravacitinib 6 mg once daily (QD), or apremilast 30 mg twice daily. At Week 52, patients enrolled in the LTE trial received open-label deucravacitinib 6 mg QD. Safety was evaluated in patients who received ≥1 dose of deucravacitinib. Exposure-adjusted incidence rate (EAIR) per 100 person-years (PY) was calculated as 100*(# of patients with an adverse event [AE])/(total exposure time for all patients at risk [time to initial AE occurrence for patients with AE+total exposure time for patients without AE]). Efficacy outcomes included ≥75%/≥90% reduction from baseline in Psoriasis Area and Severity Index (PASI 75/90) and static Physician Global Assessment score of 0 (clear) or 1 (almost clear) (sPGA 0/1). Efficacy was analyzed as previously reported using modified nonresponder imputation (mNRI) in patients who received continuous deucravacitinib treatment from Day 1 of the parent trial and were enrolled and treated in the LTE trial. As-observed data and results by treatment failure rules imputation were also analyzed.

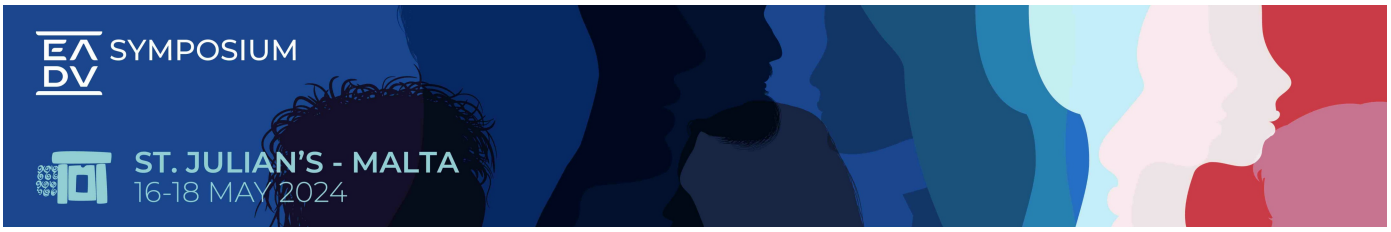
Results:

A total of 1519 patients received ≥1 dose of deucravacitinib, with cumulative exposure from parent trial randomization of

4392.8 PY. EAIRs/100 PY were decreased or comparable from the 1-year to 4-year cumulative period, respectively, for AEs (229.2, 131.7), serious AEs (5.7, 5.0), deaths (0.2, 0.3), discontinuation due to AEs (4.4, 2.2), herpes zoster (0.8, 0.6), malignancies (1.0, 0.9), major adverse cardiovascular events (0.3, 0.3), and venous thromboembolism (0.2, 0.1). In patients receiving continuous deucravacitinib treatment as described above (n = 513), clinical response rates were maintained from Year 3 (PASI 75, 73.8% [95% CI, 69.6, 78.0]; PASI 90, 49.0% [95% CI, 44.4, 53.7]; sPGA 0/1, 55.2% [95% CI, 50.5, 59.9]) to Year 4 (PASI 75, 71.7% [95% CI, 67.0, 76.3]; PASI 90, 47.5% [95% CI, 42.6, 52.4]; sPGA 0/1, 57.2% [95% CI, 52.1, 62.2]) by mNRI, with similar results with other data imputation methodology.

Conclusion:

Deucravacitinib demonstrated a consistent safety profile through 4 years with that at 3 years, which was reported earlier, with no emergence of new or long-term safety signals. Efficacy was maintained through 4 years in patients treated continuously with deucravacitinib from Day 1 in the POETYK PSO-1/PSO-2 trials. These data support the long-term safety and durable efficacy profile through 4 years of treatment with deucravacitinib, a first-in-class TYK2 inhibitor treatment for psoriasis.



Abstract N°: 1338

Serum Level of Adiponectin in Psoriasis and Its Relation to Body Mass Index

Abdel Aziz El-Taweel[1, 2, 3]

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Introduction & Objectives:

The exact cause of psoriasis is still unclear, but it is considered a disease of dysregulated inflammation which is driven and maintained by interaction among multiple components of immune system in genetically predisposed individuals. Adiponectin of adipose origin has the highest circulating concentration among the known adipokines.

Adiponectin regulates skin inflammation especially IL-17-related psoriasiform dermatitis, Aim and objectives; to evaluate serum level of adiponectin in psoriasis patients with respect to their association with psoriasis severity and its relation to body mass index, Subjects and methods; This study is Case control study, was carried out on 60 patients at Dermatology Outpatient Clinic at Beni-Suef University Hospital, from December 2019-August2020.

Materials & Methods:

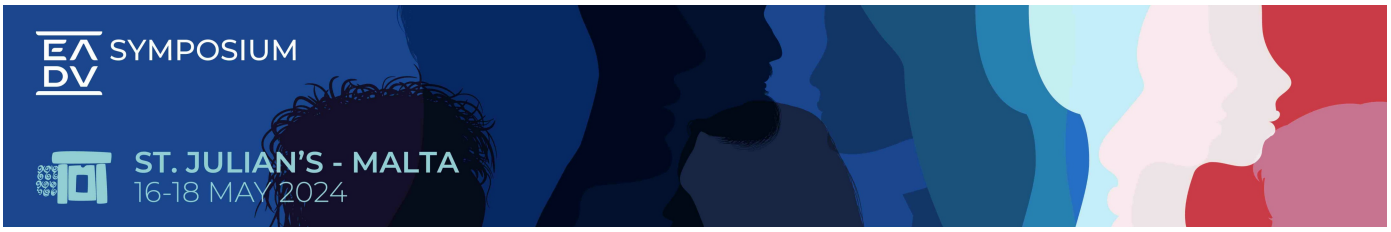
This study is Case control study, was carried out on 60 patients at Dermatology Outpatient Clinic at Beni-Suef University Hospital, from December 2019-August2020.

Results:

There was high statistically significant difference between the studied groups as regard adiponectin.

Conclusion:

Adiponectin measurement in serum of patients with psoriasis correlated with the clinical state and it is highly specific, sensitive and accurate in diagnosis of psoriasis. Also, adiponectin might be a new biomarker for prediction and evaluation of psoriasis severity as it is closely connected with the inflammatory states in psoriasis. Adiponectin might be a useful marker for the assessment of psoriasis treatment and clinical follow-up of those patients, Keywords; Psoriasis; Adiponectin; Obesity; severity.



Abstract N°: 1386

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor in scalp psoriasis: design of a phase 3b/4, multicenter, randomized, double-blind, placebo-controlled trial to evaluate efficacy and safety in patients with moderate to severe scalp psoriasis (PSORIATYK SCALP)

Kristina Callis-Duffin[1], Andrew Blauvelt[2], Eugene Balagula[3], Renata M. Kisa[3], Rachel Dyme[3], Virginia Hala[3], Kim Hoyt[3], Christopher Griffiths[4], Mark Lebwohl[5]

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Introduction & Objectives:

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, and other countries for treatment of adults with moderate to severe plaque psoriasis who are candidates for systemic therapy. In the global phase 3 POETYK PSO-1 (NCT03624127) and POETYK PSO-2 (NCT03611751) trials in plaque psoriasis, deucravacitinib was superior to placebo at Week 16 based on a scalp-specific Physician Global Assessment score of 0 (clear) or 1 (almost clear) (ss-PGA 0/1) and ≥90% reduction from baseline in Psoriasis Scalp Severity Index (PSSI 90) in patients with moderate to severe scalp psoriasis at baseline (ss-PGA ≥3). Efficacy in these scalp outcomes was maintained through Week 52 in patients receiving continuous deucravacitinib treatment from baseline. The primary objective of the ongoing PSORIATYK SCALP (NCT05478499) trial is to enhance our understanding of deucravacitinib efficacy specifically in patients with moderate to severe scalp psoriasis, including those with more limited total body psoriasis.

Materials & Methods:

PSORIATYK SCALP is an ongoing phase 3b/4, multicenter, randomized, double-blinded, placebo-controlled trial. Adults ≥18 years of age with moderate to severe scalp psoriasis (ss-PGA ≥3, scalp surface area involvement ≥20%, and PSSI ≥12) and BSA involvement ≥3% were included in the trial (see study design **Figure** for further inclusion/exclusion criteria). Patients were randomized 1:2 to oral placebo or deucravacitinib 6 mg once daily through Week 16. At Week 16, all patients received open-label deucravacitinib 6 mg once daily through Week 52. The primary and secondary endpoints will evaluate efficacy and safety at Week 16 versus placebo (**Table**).

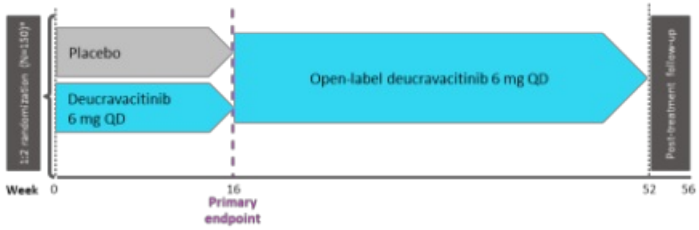
Results:

The PSORIATYK SCALP trial is being conducted at multiple study sites in Europe (France, Germany, Poland, and the United Kingdom) and in the United States. Recruitment for a planned enrollment of 150 patients has been completed.

Conclusion:

The results of PSORIATYK SCALP, a scalp-specific trial, will further enhance our understanding of the efficacy and safety of deucravacitinib in patients with moderate to severe scalp psoriasis, including in patients with more limited overall BSA involvement. **

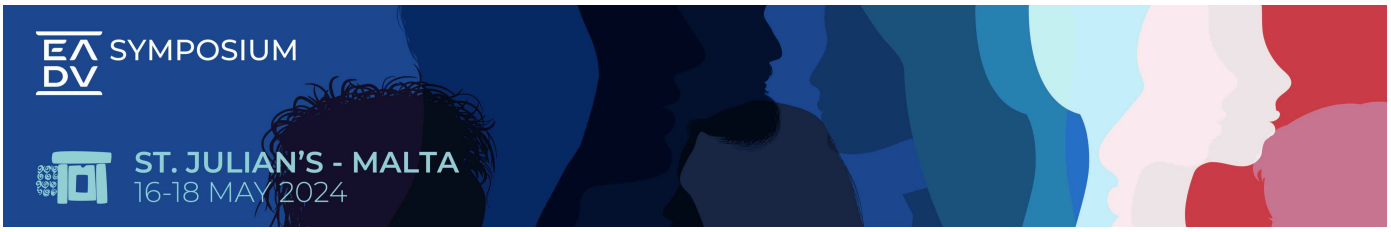
Figure. PSORIATYK SCALP study design



Key inclusion criteria	Key exclusion criteria
• Adults ≥18 years of age • Stable plaque psoriasis with scalp involvement ≥6 months • Candidate for phototherapy or systemic therapy • Moderate to severe scalp psoriasis at baseline (ss-PGA ≥3, scalp surface area involvement ≥20%, and PSSI ≥12) • BSA involvement ≥3% at screening visit and Day 1 • Evidence of plaque psoriasis in a nonscalp area • Failed to respond to or intolerant of ≥1 topical therapy for scalp psoriasis	• Nonplaque psoriasis (ie, guttate, inverse, pustular, erythrodermic, or drug-induced psoriasis)

*Estimated enrollment.
BSA, body surface area; PSSI, psoriasis scalp severity index; QD, once daily; ss-PGA, scalp-specific Physician Global Assessment.

Table. PSORIATYK SCALP study endpoints
Endpoint category
Primary endpoint
Secondary endpoints
PSSI 90, ≥90% reduction from baseline in Psoriasis Scalp Severity Index; sPGA 0/1, static Physician Global Assessment score of 0 (clear) or 1 (almost clear) with ≥2-point reduction from baseline; ss-PGA 0/1, scalp-specific Physician Global Assessment score of 0 (clear) or 1 (almost clear) with ≥2-point reduction from baseline.



Abstract N°: 1447

Simultaneous presentation of pustular psoriasis and rheumatoid arthritis

Ouissal Hormi[1], El Yamani Lamis[1], Zerrouki Nassiba[2], Dikhaye Siham[2], Zizi Nada[2]

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Introduction & Objectives:

Generalized pustular psoriasis is a rare and severe immune-mediated systemic dermatosis. The coexistence of autoimmune diseases presents a significant diagnostic challenge in clinical practice.

This case report describes a rare case of pustular psoriasis associated with rheumatoid arthritis, highlighting the complexity of diagnosis and management of overlapping autoimmune diseases.

Materials & Methods:

This is a 28-year-old female patient who has been followed since the age of 14 for juvenile seropositive rheumatoid arthritis, which is deforming and erosive, complicated by Sjögren's syndrome, atlanto-axial subluxation with diastasis, and odontoid pannus.Therapeutically, she was initially started on methotrexate at a dose of 22.5 mg per week, then switched to tocilizumab and salazopyrin.

The patient presented to the emergency department with a pruritic generalized erythematous-scaly and pustular eruption evolving for 3 months, associated with diffuse inflammatory arthralgia.

Dermatological examination revealed multiple erythematous lesions forming large plaques and patches covered with non-follicular pustular lesions, as well as fine white adherent scales, scattered throughout the body.

Dermoscopy showed an erythematous base covered with fine white scales, regular glomerular vascularization, as well as a positive Auspitz sign and some fine telangiectasias. Skin biopsy confirmed the diagnosis of generalized pustular psoriasis.

On the rheumatological side, she underwent laboratory tests which revealed elevated anti-cyclic citrullinated peptide antibodies and rheumatoid factor, along with radiological examination results consistent with rheumatoid arthritis, excluding psoriatic arthritis.

The patient was treated with topical corticosteroids and methotrexate, resulting in good improvement in both skin and joint symptoms.

Results:

Rheumatoid arthritis and psoriasis are chronic autoimmune diseases that involve chronic inflammation mediated by pro-inflammatory cytokines. They exhibit similar comorbidity profiles, with overlapping therapeutic options.

The association between rheumatoid arthritis and psoriasis was first reported in 1822, and the first clinical study was conducted in 1888.

In 2012, a retrospective cohort study involving 25,341 psoriasis patients reported a strong association between psoriasis and RA.

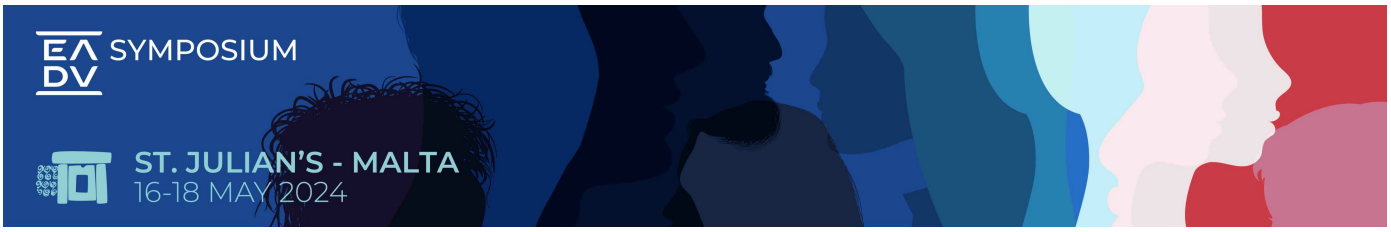
Martin et al. reported in a study that adults with psoriasis are more likely to develop RA than adults without psoriasis (8.1% of psoriasis subjects reported a history of RA, compared to 4.0% of subjects without psoriasis).

This association can be attributed to a similar pathophysiology involving tumor necrosis factor-alpha and interleukin 17. Some authors have suggested that skin lesions are a manifestation of rheumatoid arthritis and consider them psoriasiform rather than psoriasis.

There are few studies on the coexistence of pustular psoriasis and rheumatoid arthritis.

Conclusion:

This complex association is of particular interest due to its significant impact on the quality of life of patients, as well as the diagnostic and therapeutic challenges it poses. When treating patients with both psoriasis and RA, it may be essential to consider treatment strategy based on the disease that is most active.



Abstract N°: 1485

Erythrodermic psoriasis treated with bimekizumab in a patient refractory to multiple biological treatments

Elena De Jesús García Verdú[1], Elena Lucia Pinto Pulido[2], Paola Merlo Gómez[2], Isabel Polo Rodríguez[2], Susana Medina[2], Ana Belen Piteiro Bermejo[2]

[1]Hospital Universitario Príncipe de Asturias, Dermatology, Alcalá de Henares, Spain,[2]Hospital Universitario Príncipe de Asturias, Alcalá de Henares, Spain

Introduction & Objectives:

Erythrodermic psoriasis (EP) is a severe and a rare form of psoriasis. There are not enough studies to stablish with certainty which should be the first treatment option. It has only been reported one case of EP treated with bimekizumab.

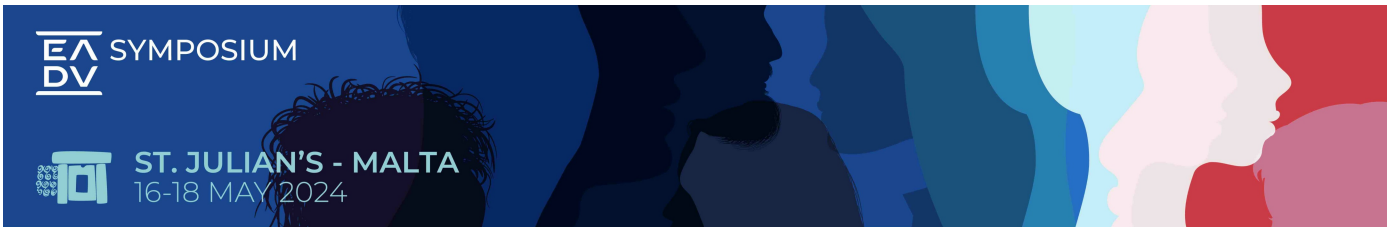
Materials & Methods:

Results:

We present the case of a 64-year-old woman with a 20-year history of moderate to severe plaque psoriasis (PP) and peripheral psoriatic arthritis (PsA) refractory to multiple treatments, including multiple biologics. Two years after brodalumab discontinuation, she presented a disease worsening with psoriasis plaques affecting the 90% of her body surface area and a peripheral PsA flare-up. Bimekizumab was the administered at PP standard dose (2 injections of 160 mg every 4 weeks). She achieved complete resolution of the skin involvement after 4 weeks. Although joint improvement started at week 4, almost complete joint pain relief was achieved at week 12. The obtained response has been sustained during the 44 weeks of follow-up without any adverse events.

Conclusion:

We report, to our knowledge, the second case of EP treated with bimekizumab, who also presented PsA and had been previously treated with multiple biologic agents. We highlight the potential utility of bimekizumab in EP based on its rapid and sustained skin and joint response.



Abstract N°: 1495

Rapid Response of Brodalumab in Erythrodermic Psoriasis

Carlos Manuel Martorell Moreau[1], Ines Gracia Darder[1], Maria Nazaret Olmos-García[1], Laura Moreno Hernandez[1], Elisabeth Vanrell Büse[1], Juan Escalas Taberner[1]

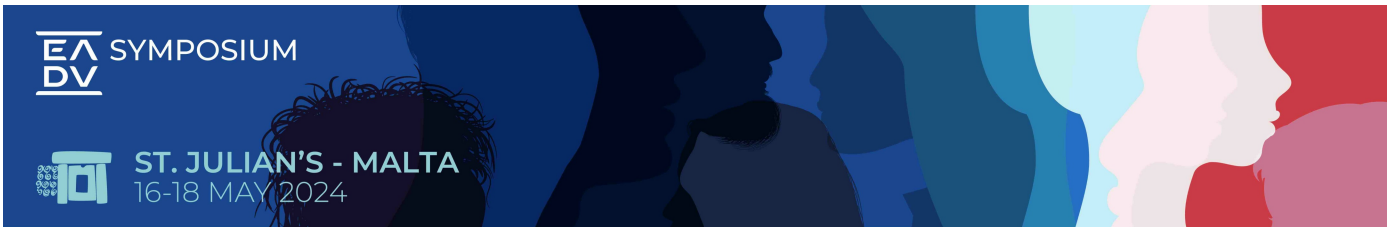
[1]Hospital Universitari Son Espases, Dermatology, Palma, Spain

Introduction: Erythrodermic psoriasis, characterized by its aggressive nature affecting over 90% of the body surface, presents a clinical challenge with potential systemic complications. Prompt dermatological attention is crucial for this infrequent presentation. Here, we present the case of a 76-year-old female patient with multiple comorbidities and poor therapeutic adherence, whose treatment with brodalumab demonstrated safety and efficacy.

Case report: A 76-year-old female patient with a history of hypertension, dyslipidemia, coronary artery disease, dementia and long-standing plaque psoriasis, presented with a 4-month history of erythroderma exacerbated by poor therapeutic adherence due to dementia. Physical examination revealed erythematous scaly plaques covering 90% of the body surface, with nail and scalp involvement. Given the comorbidities and the need for rapid control, brodalumab was initiated at a dose of 210 mg at weeks 0, 1, and 2, followed by 210 mg every 2 weeks. At 4 weeks, a rapid clinical improvement was observed without adverse effects. Currently, after 6 months of treatment, the patient remains in remission of psoriasis.

Discussion: Erythrodermic psoriasis may be triggered by infections or drug reactions and presents therapeutic challenges distinct from conventional psoriasis. Risks associated with classic medications such as cyclosporine may be suboptimal due to patients' multiple comorbidities. Although experience with new biological treatments is limited, brodalumab, an IL-17A inhibitor, has shown superiority over ustekinumab in clinical studies and a broad activity in blocking other isoforms. Although there is limited literature on the treatment of erythrodermic psoriasis with brodalumab, some cases demonstrating its effectiveness have been published. The most extensive series is that of Yamasaki et al. (2017), a phase III, open-label, multicenter study in Japanese patients with 12 cases of generalized pustular psoriasis and 18 with erythrodermic psoriasis. Patients received brodalumab 140 mg on day 1 and weeks 1 and 2, followed by every 2 weeks until week 52. 94.4% and 100% of patients with erythrodermic psoriasis achieved the primary efficacy variable measured by Clinical Global Impression of Improvement classified as "improved" or "remission" at week 2 and week 12, respectively. At week 52, 100% of patients were classified as "improved" or "in remission". More recently, the experience of Mota and Mendes-Bastos 2023 was also favorable with a series of three cases of patients with erythrodermic psoriasis treated with brodalumab. The patients showed complete clearance and rapid improvement in their quality of life after starting brodalumab, with no relevant adverse events during a follow-up period of 52 to 116 weeks.

Conclusion: Brodalumab emerges as a valuable and safe option in erythrodermic psoriasis, particularly in patients with limitations for conventional treatments.



Abstract N°: 1545

Pilot study of airocryotherapy in patients with psoriasis

Anna Brezhneva[1], Nikolay Kochergin[1], Alexander Fadeev[1]

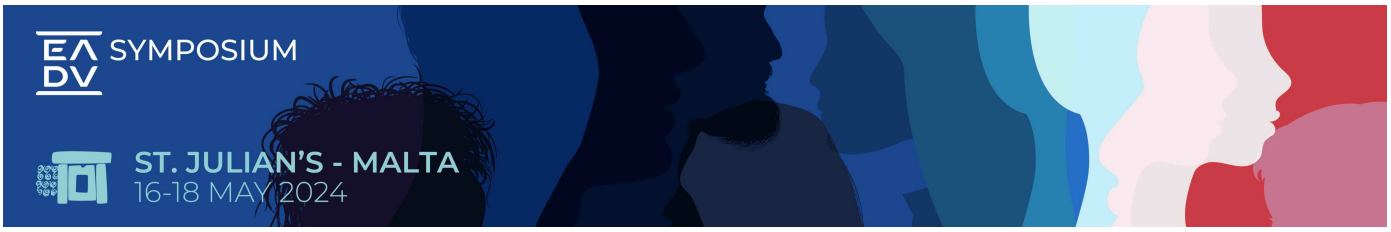
[1]I.M. Sechenov First Moscow State Medical University (Sechenov University), V.A.Rakhmanov Department of Skin and Venereal Diseases, Moscow, Russian Federation

Introduction & Objectives: Pathological angiogenesis in psoriasis is currently being widely studied. Plasma levels of VEGF are higher in patients with psoriasis than in healthy individuals correlating with the severity of the disease. Promising drugs in treatment of psoriasis would be monoclonal antibodies to VEGF, although none have yet been licensed. According to literature resources, general airocryotherapy (ACT) significantly reduces the production of reactive oxygen species what leads to suppression of inflammation and a decrease in cytokine production. Evidence suggests that VEGF decreases under the effect of ACT, leading to angiogenesis depression. The purpose of this study was to evaluate the effectiveness of the general ACT technique in patients with psoriasis vulgaris.

Materials & Methods: A pilot study of the ACT efficacy has been conducted with the participation of 5 patients with psoriasis of 32 to 57 years of age and 5 to 23 years of psoriasis history. The initial PASI index ranged from 18 to 22 points and for the DLQI index from 20 to 25 points. The ACT procedure was performed in the ICEQUEEN cryocapsule, a closed thermally insulated chamber with air cooling ranging from -120°C to -165°C, which allows uniform cooling of 98% of the patient's body, including the scalp. The procedure was performed for 2 minutes 3 times a week, 5 procedures for a course. The mentioned temperature in the ICEQUENN cryocapsule was reached in 9-15 seconds from the start of the procedure. Before each procedure, a patient's blood pressure, pulse, and body temperature were measured.

Results: As a result of the therapy, the mean reduction of the PASI index was 46%, the DLQI index improved by 56%. There was a clinical decrease in the infiltration of psoriatic plaques. Patients noted an improvement in joint soreness, itch regression, as well as in general well-being and mood. The tolerability of the procedure was good in all cases, no side effects were observed.

Conclusion: Based on the results of this pilot study, the ACT technique can be recommended for further investigation of its efficacy in the therapy for psoriasis patients. Presumably, the ACT reduces abnormal angiogenesis by improving tissue hypoxia, reducing levels of reactive oxygen species and VEGF.



Abstract N°: 1584

Twin Perspectives: Unraveling Psoriasis Pathogenesis through Lifestyle and Hormonal Dynamics

Cristina Muntean[1], Daciana Elena Branisteanu[2], Cornel Gantatuc[1], Mihaela Paula Toader[2], Stefana Maria Capsa[1], Andreea-Caterina Rusu[1], Antonia Clivet[1], Catalina Anca Munteanu[1], Catalina Cojocaru[1]

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Twin Perspectives: Unraveling Psoriasis Pathogenesis through Lifestyle and Hormonal Dynamics

Introduction & Objectives:

This case study focuses on the simultaneous onset of psoriasis in a set of heterozygous twins in 2018, triggered by a period of academic stress (high school graduation exams). Each sister experienced a different disease progression, significantly influenced by lifestyle factors, including dietary habits, smoking, and hormonal conditions.

Materials & Methods:

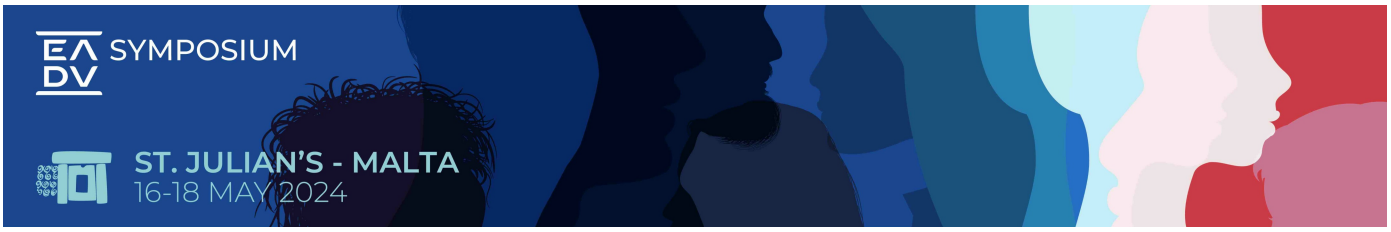
We present the case of a 24 years old female dizygotic twin with psoriasis vulgaris. The patient had an imbalanced lifestyle (BMI = 37.89 kg/m^2), a history of excessive smoking, irregular menstrual cycles and initially showed a greater extension of psoriatic lesions that might suggest potential associations between psoriasis severity, metabolic health, and hormonal regulation. The other twin, with milder psoriasis manifestations, exhibited no obesity and had a history of pregnancy, highlighting potential protective factors or modifying influences of hormones on disease expression. Diagnosis was established by correlating the patient's history, clinical presentation, positive Brocq's methodical scraping and Auspitz sign, dermoscopy findings and histopathological confirmation of skin biopsy. Initial treatment included topical therapy with calcipotriol and betamethasone, NB-UVB phototherapy, emolients and personalized nutritional interventions. Attention was also given to the management of polycystic ovary syndrome and hormonal balancing.

Results:

This case emphasizes the complex interplay between genetic predisposition, environmental factors, and individual health characteristics in shaping the clinical phenotype of psoriasis. The progression of lesions was notably different between the two sisters, with a significant improvement observed in the appearance of lesions for the patient with a more severe condition following lifestyle changes. However, after adopting a balanced nutrition and reducing cigarette consumption, alongside the targeted treatment, there was a noticeable improvement in her condition compared to her sister, who had maintained a healthier lifestyle from the beginning. This improvement was attributed not only to lifestyle modifications but also to the effective management of polycystic ovary syndrome, illustrating the profound impact of comprehensive care.

Conclusion:

This case highlights the importance of lifestyle factors and hormonal balance in the progression of psoriasis. The differences in disease progression between the twins provide valuable insight into how personalized interventions can influence the clinical evolution of dermatological conditions. The study suggests that comprehensive management, including lifestyle modifications, proper nutrition, and control of hormonal factors, can play a crucial role in alleviating symptoms of psoriasis.



Abstract N°: 1622

Correlation between carotid artery mean intima-media thickness and brain natriuretic peptide in patients with psoriasis

Mohammad Shahidi-Dadras[1], Nasim Niknezhad*[1], Fateme Rajabi[1], Hamidreza Haghighat Khah[2], Nakisa Niknejad[3], Shima Younespour[4]

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Introduction & Objectives:

Numerous studies have documented an association between psoriasis and subclinical atherosclerosis. We aimed to investigate the effects of psoriasis on the levels of N-terminal prohormone B type natriuretic peptide (NT-proBNP) and clarify whether this factor correlates with the evaluations of subclinical atherosclerosis, measured with mean intima-media thickness (MIMT) of carotid artery.

Materials & Methods:

This case-control study includes sixty-one patients diagnosed with moderate to severe psoriasis that were visited at our referral dermatology clinics and sixty-one healthy volunteers (age and sex and Body Mass Index (BMI) matched, randomly selected). Documented factors included age, sex, BMI (kg/m2), lipid profile, psoriasis area and severity index (PASI), disease duration, and presence of arthritis (redness, pain, swelling, and deformation of joints). MIMT was measured by a blinded experienced radiologist using a high-resolution B-mode device provided with a 10 MHz broadband linear probe (axial resolution of at least 0.3 mm). The mean of three measures documented within a 10 mm segment proximal to the bifurcation of carotid artery was considered as MIMT. NT-proBNP serum levels were measured by electrochemiluminescence method. Based on the estimated risk of subclinical atherosclerosis assessed by MIMT in healthy individuals the study required 61 participants in each group.

Results:

The median NT-proBNP level was 26.7 (IQR: 15.15 to 43.0 and range: 5-250) in patients with psoriasis and 17.4 (IQR: 12.3 to 20.8 and range: 5-45.1) in control group (P< 0.001). The median NT-proBNP level was 58 (IQR: 33.7 to 91.3 and range: 29.2-115) in patients with arthritis and 23.1 (IQR: 14.3-36.3 and range: 5-250) in patients without arthritis. The median NT-proBNP level was significantly higher in patients with arthritis in comparison with those without arthritis (P= 0.002).

The mean MIMT was significantly higher in patients than in control subjects (0.77±0.19 and 0.52±0.10, respectively, and P<0.0001). The median MIMT was 0.80 (IQR: 0.60 to 1.80 and range: 0.40-1.10) in patients with arthritis and 0.74 (IQR: 0.60-0.74 and range: 0.40-1.28) in patients without arthritis, with no significant difference (p=0.55). MIMT was positively correlated with age and serum NT-proBNP level in both groups.

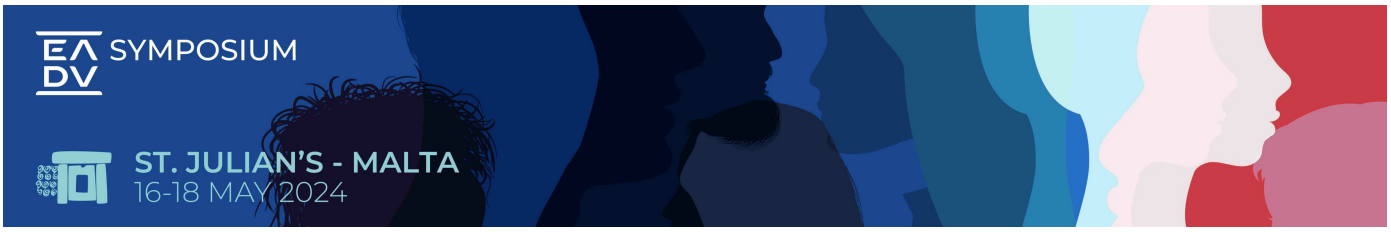
Conclusion:

In conclusion, the findings in this study generally agree with previous studies on the association of psoriasis with subclinical cardiac abnormalities. Additionally, this is the first study to assess NT-proBNP and its association with MIMT in these patients. NT-proBNP was significantly associated with MIMT in patients with moderate to severe psoriasis. We suggest that this biochemical marker should be taken into account for prediction of subclinical atherosclerosis in psoriasis patients.

Table. Correlation between MIMT and all other variables evaluate

	MIMT			
	Patients with psoriasis (n=61)		Healthy controls (n=61)	
Variables	r	p	r**	p*
NT-proBNP	0.50	<.0001	0.33	0.01
Age, years	0.63	<.0001	0.59	<.0001
BMI	0.003	0.98	0.24	0.06
Duration of disease	0.31	0.01	-	-
PASI	0.17	0.20	-	-

BMI: body mass index (calculated as weight in kilograms divided by height in meters squared); MIMT: mean intima-media thickness of the common carotid artery; PASI: psoriasis area and severity index; NT-proBNP: N-terminal prohormone B type natriuretic peptide; r**, Spearman's correlation coefficient.



Abstract N°: 1650

Pustular psoriasis following COVID-19: successful bimekizumab treatment.

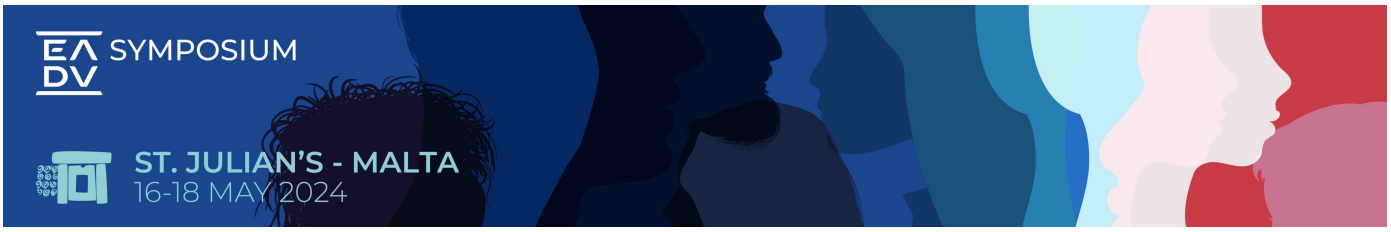
Elena Lucia Pinto Pulido*[1], Elena De Jesús García Verdú[1], Paola Merlo Gómez[1], Ana Belen Piteiro Bermejo[1], Susana Medina[1], Isabel Polo Rodríguez[1]

[1]Hospital Universitario Príncipe de Asturias. Universidad de Alcalá, Dermatology

Case presentation: A 75-year-old man was under dermatology follow-up because of plaque psoriasis. He also suffered from ischemic heart disease, atrial fibrillation, chronic obstructive pulmonary disease, diabetes mellitus and hypertension. He was on risankizumab and had previously received topical betamethasone/calcipotriol, UVB phototherapy, acitretin and apremilast. He attended the emergency department for fever, cough, and skin lesions worsening. He exhibited multiple intense red annular plaques, with scaly areas and pustules on their surface. They affected the lower and upper limbs, trunk and face. Polymerase chain reaction test was positive for SARS-CoV-2. A skin biopsy was performed. Typical psoriasis features were found, including the presence of subcorneal pustules. Despite the improvement in the rest of his symptoms, the skin lesions worsened, reaching a PASI of 44 with a BSA of 66% and PGA 6. Therefore, we decided to start bimekizumab treatment. After 4 weeks the patient showed a very significant improvement, persisting at week 8 with only a small plaque on the back (PASI 1.1; BSA 1; PGA 1).

Discussion: Bimekizumab is a biologic inhibitor of interleukins (IL) 17A and 17F. It has demonstrated efficacy and safety for plaque psoriasis in clinical trials and, recently, in real-world practice. However, there are just 3 reported cases of pustular psoriasis treated with bimekizumab. These patients showed improvement, achieving almost complete clearance of the skin lesions. Recently, a series of 21 patients with palmoplantar pustulosis treated with bimekizumab was published in which 81% achieved complete remission 1-4 months after starting treatment. This good response to bimekizumab in patients with pustular forms of psoriasis may be related to the IL-36 pathway, a key cytokine in the pathogenesis of this disease, since clinical trials showed a reduction in IL-36 levels in patients with plaque psoriasis treated with bimekizumab.

Conclusion: Despite the need for further evidence, the significant and rapid improvement of these patients suggests that bimekizumab may have an important role in the management of pustular psoriasis.



Abstract N°: 1693

A Retrospective Monocentric Study Evaluating the Effectiveness and Safety of Bimekizumab in Real World Settings.

Natalia Rompoti[1], Ioannis-Alexios Koumprentziotis[1], Irene Stefanaki[1], Charitomeni Vavouli[1], Marina Papoutsaki[1], Maria Politou[1], Pantelis Panagakis[2], Angeliki Befon[2], Fiori Kousta[2], Eleni Lazou[2], Vasiliki Chasapi[2], Alexander Stratigos[1], Electra Nicolaidou*[1]

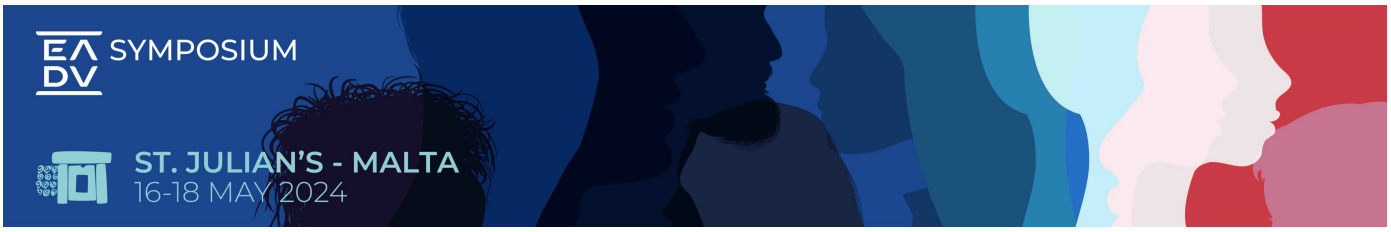
[1]1st Department of Dermatology and Venereology, Medical School, National and Kapodistrian University of Athens, "A. Sygros" Hospital for Skin and Venereal Diseases, Athens, Greece, [2]Department of Dermatology and Venereology, National Health System, "A. Sygros" Hospital for Skin and Venereal Diseases, Athens, Greece

Introduction & Objectives: Bimekizumab is a humanized monoclonal IgG1 antibody with a unique mechanism of action, as it inhibits both IL17A and IL17F molecules. This dual inhibition is thought to be responsible for its high efficacy in treating chronic plaque psoriasis with rapid onset of action in Randomized Controlled Trials (RCTs). Concerning safety, oral candidiasis was one of the most common drug-related adverse events, commonly mild-to-moderate in severity. Although data from RCTs supporting this efficacy and safety profile of bimekizumab is numerous, results from the real-world setting concerning short- and mid-term treatment effectiveness and safety profile are limited.

Materials & Methods: An observational, retrospective, monocentric study was conducted at the Psoriasis Outpatient Unit, which included adult patients with moderate-to-severe skin psoriasis, who received at least one dosage of bimekizumab.

Results: A total of 70 patients (37 males, 33 females) were included. At the time of drug initiation, the mean (range) age was 53.1 (22-76) years, the mean (range) age at psoriasis onset was 35.1 (6-73) years and the mean (range) disease duration was 18.8 (1-45) years. At baseline the mean BMI (SD) was 31.1 (7.11) Kg/m2, 42 (60%) patients suffered from at least one comorbidity and 16 (22.8%) from at least three. Concerning difficult-to-treat areas, 24 (34.2%) had nail disease, 29 (41.4%) scalp disease and 10 (14.2%) genital area involvement while concomitant psoriatic arthritis was observed in 22 (31.4%) patients. The mean (SD) Psoriasis Area and Severity Index (PASI) at baseline was 9.63 (7.37) which subsequently dropped into 2.7 (3.12), 0.68 (1.54) and 0.76 (2.22) at week 4, 16 and 24 respectively. At week 4, 66.6% achieved PASI75, 46.1% PASI90, and 33.3% PASI100. After 16 weeks of treatment, 91.8/75.6/67.5% of the patients achieved PASI75/90/100. After 24 weeks of treatment, the endpoints of PASI75/90/100 were achieved by 91.4/82.8/74.2% of patients. Six (8.5%) cases of possibly drug-related adverse events were reported, from which four incidences of oral candidiasis.

Conclusion: Our results confirm that this IL17A/F inhibitor is highly effective, with a tolerability profile similar to the one expected from RCTs.



Abstract N°: 1714

Intraclass Switch Among IL-17 Inhibitors in Moderate-to-Severe Chronic Plaque Psoriasis: Real World Data From a Single-Center, Retrospective Study.

Ioannis-Alexios Koumprentziotis[1], Natalia Rompoti[1], Irene Stefanaki[1], Charitomeni Vavouli[1], Marina Papoutsaki[1], Maria Politou[1], Alexander Stratigos[1], Electra Nicolaidou*[1]

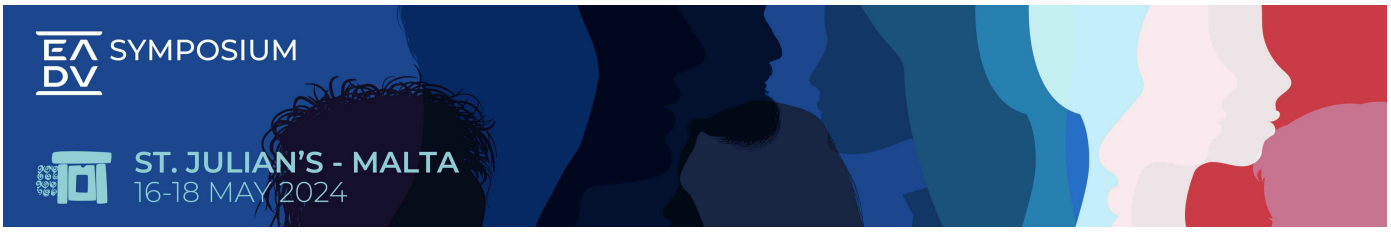
[1]1st Department of Dermatology and Venereology, Medical School, National and Kapodistrian University of Athens, "A. Sygros" Hospital for Skin and Venereal Diseases, Athens, Greece

Introduction & Objectives: Blockade of the IL-17 signaling pathway has proved to be successful in the treatment of moderate-to-severe plaque psoriasis with agents such as ixekizumab, and secukinumab (IL-17A inhibitors), brodalumab (IL-17 receptor inhibitor) and bimekizumab (IL-17A and IL-17F inhibitor). Still, primary or secondary inefficacy is observed in a considerable amount of treated patients. As a response to this lack or loss of efficacy, physicians' therapeutic approach could be either to change drug class or perform an intraclass switch. We aimed to assess whether switching from an IL-17 inhibitor to another is an effective and safe option in real world settings.

Materials & Methods: We conducted a single-center, retrospective study of adult patients with moderate-to-severe chronic plaque psoriasis that discontinued an IL-17 inhibitor and were subsequently switched to another agent within the same class. The follow up period was 104 weeks with the exception of patients that switched to bimekizumab who were followed for up to 24 weeks due to its recent approval in our country.

Results: A total of 59 patients (39 males, 20 females) met the inclusion criteria. In this cohort, 19 patients had switched to bimekizumab (8 from brodalumab, 5 from ixekizumab, 6 from secukinumab), 16 to brodalumab (14 from secukinumab, 2 from ixekizumab), 18 to ixekizumab (9 from brodalumab, 9 from secukinumab) and 6 to secukinumab (5 from brodalumab, 1 from bimekizumab). The main reason for switching was secondary failure (42 cases), followed by primary failure (14 cases) and adverse events (3 cases). At the time of drug initiation, the mean (range) age was 50.7 (25-79) years, the mean (range) age at psoriasis onset was 30.3 (6-59) years and the mean (range) disease duration was 20.9 (2-46) years. The mean BMI (SD) was 30.9 (5.94) Kg/m2 and 40 (67.7%) patients suffered from at least one comorbidity. Psoriatic arthritis was observed in 22 (37.2%) patients. Concerning difficult-to-treat areas, 33 (55.9%) had nail disease, 28 (47.4%) scalp disease and 29 (32.2%) genital area involvement. The mean (SD) Psoriasis Area and Severity Index (PASI) at baseline was 7.82 (6.54). At 4, 16, 24, 52 and 104 weeks the mean (SD) PASI was 2.94 (3.34), 1.16 (2.09), 1.9 (3.38), 1.94 (4.08) and 1.16 (2.29) respectively. PASI75/90/100 was reached by 74.3/61.5/58.9% at week 16, by 75.6/ 58.5/ 53.6% at week 24, by 72.4/58.6/58.6% at week 52, and by 84.6/69.2/69.2% at week 104, respectively. During observation, adverse events included injection site reactions (4 patients) and recurrent fungal infections (2 patients).

Conclusion: Our study suggests that switching from an IL-17 inhibitor to another can be an effective and safe option in real world settings. Despite being in accordance with the limited available literature, larger studies are needed to draw firmer conclusions.



Abstract N°: 1762

Possible predictors of psoriatic arthritis in patients with psoriasis

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Introduction & Objectives:

Psoriatic arthritis is a chronic, progressive disease that leads to destruction and deformation of joints, loss of their functions, which negatively affects the quality and life expectancy of patients. According to the literature, the prevalence of undiagnosed psoriatic arthritis among psoriasis patients in North America and Western Europe reaches an average of 15.5% of cases. Therefore, early diagnosis and more effective treatment strategies for patients with psoriatic arthritis become an important task. The aim of the study is to determine possible predictors of psoriatic arthritis in patients with psoriasis.

Materials & Methods:

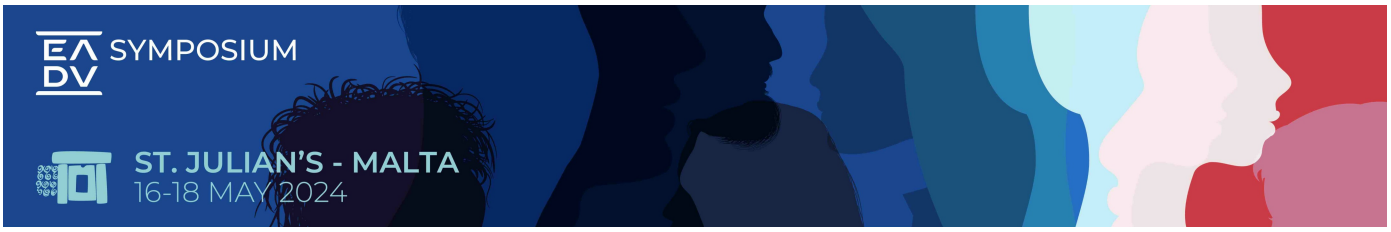
The open, uncontrolled, prospective study enrolled 440 patients. The main group consisted of 357 patients diagnosed with plaque psoriasis. The control group consisted of 83 patients with psoriatic arthritis. In order to identify associations of clinical parameters with the development of psoriatic arthritis, the frequency of occurrence of these parameters was compared in patients with psoriasis psoriatic arthritis and without.

Results:

Among 357 patients with plaque psoriasis 232 (65.0%) men, 125 (35.0%) women, aged 18 to 84 years (14.57 ± 15.33); the average duration of psoriasis was 14.45 ± 12.62 years (0–63). Among 83 patients with psoriatic arthritis 50 (60.2%) men, 33 (39.8%) women aged 18 to 86 years (43.85 ± 13.96), the average duration of psoriasis was 19.12 ± 12.99 years (2–57), the average duration of psoriatic arthritis was 7.46 ± 9.59 years (0–47). A range of clinical and anamnestic parameters were assessed (age, gender, duration of psoriasis, smoking status, onset of psoriasis on the scalp, inverse psoriasis, nail psoriasis, comorbidities, etc.). Statistically significant differences were identified only for 2 clinical parameters. Clinical predictors for the development of psoriatic arthritis in patients with psoriasis: nail psoriasis (OR = 1.855 [95% CI: 1.146–3.001], p=0.016); severe psoriasis (PASI ≥ 20) (OR = 2.143 [95% CI: 1.308–3.512], p=0.003).

Conclusion:

One of the most rational approaches to improving the outcomes of psoriatic arthritis is the early initiation of therapy in patients with psoriasis, inhibiting the development of inflammation burning of peripheral joints and spine. However, to solve this problem, it is necessary not only to expand the interaction of dermatologists and rheumatologists and to the introduction of screening questionnaires that create the prerequisites for the early detection of peripheral joints and spine pathology in patients with psoriasis, but also the identification of clinical and genetic predictors of the development of psoriatic arthritis in patients with psoriasis. The joint consideration of informative predictors will allow developing an original multiparameter mathematical model for calculating the risk of developing psoriatic arthritis in patients with psoriasis.



Abstract N°: 1796

Refractory Palmoplantar Pustular Psoriasis (PPP) successfully treated with Jak-1 inhibitor Upadacitinib: a case report

Kanella Kalapothakou*[1], Nikolaos Katsoulas[2], Pinelope Korkolopoulou[2], Despoina Exadaktilou[1]

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Introduction & Objectives: Palmoplantar pustular psoriasis (PPP) is a challenging skin condition that causes redness, scaling, and sterile pustules on the palms or soles of the feet, with or without concomitant plaque psoriasis. There are currently no standard therapeutic guidelines for PPP treatment.

Materials & Methods: A 46-year-old woman with long-standing plaque psoriasis on her scalp, sub-mammary region, and torso presented with intensively itchy palmoplantar psoriasis. The disease had progressed over the past two years to involve her palms and soles, contributing to 3% of her Body Surface Area (BSA). Despite the small extent of psoriasis, the patient experienced severe psychological burden due to anxiety and depressive emotions. The patient had no significant comorbidities.

Results: Patch testing ruled out allergic contact dermatitis. No correlation was found between palmar rash and exposure to sensitizing agents.

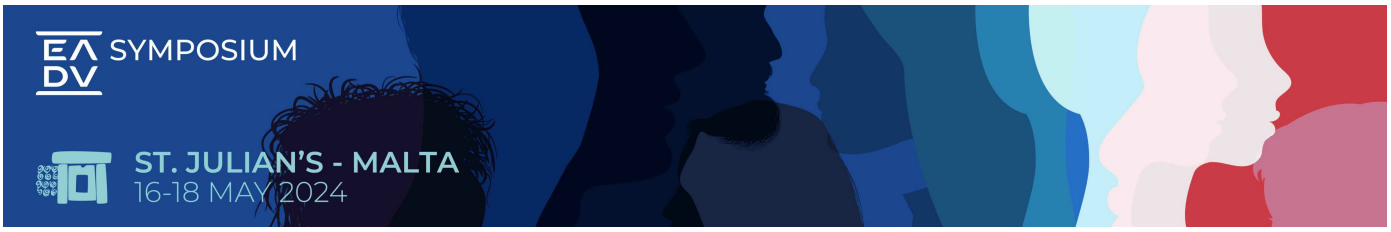
A biopsy of the affected palm skin ruled out malignancy and showed spongiotic dermatitis, a common finding in palmar psoriasis.

The patient underwent several traditional treatments, including topical agents, phototherapy, systemic methotrexate, cyclosporine, and acitretin, with no improvement.

After trying all available classes of biologics for plaque-type psoriasis without success, upadacitinib- a selective Jak inhibitor was prescribed at a daily dose of 30mg. The medication provided immediate relief from itching and cleared the rash completely within a month. This improvement was sustained during the three months of follow-up.

Conclusion: Treating PPP can be challenging as patients often fail multiple remedies. Upadacitinib is an oral JAK-1 inhibitor that can target multiple immunologic pathways. It has been approved for treating atopic dermatitis, psoriatic, and rheumatoid arthritis and has shown promising results in treating moderate-to-severe plaque psoriasis, with the added benefit of providing relief from itching. However, there is no conclusive evidence from clinical trials or case reports to suggest the effectiveness of upadacitinib in treating palmoplantar pustulosis.

To our knowledge, this is the first case report of upadacitinib as a potential treatment for refractory PPP but further investigation is required.



Abstract N°: 1810

Association of psoriasis and autoimmune liver diseases: a report of two cases

Billel Merrouche*[1], Nabila Damou[1], Raouia Roumili[1], Chabane Ben Mohand[1], Houria Sahel[1]

[1]University Hospital Center Lamine Debaghine, Department of Dermatology, Bab El Oued, Algiers, Algeria

Introduction:

Autoimmune liver diseases (ALD) are a heterogeneous group of rare and chronic liver disorders. They include primary biliary cirrhosis (PBC), autoimmune hepatitis (AHI) and primary sclerosing cholangitis (PSC). The association of these disorders with psoriasis is poorly described in the literature. We report two new cases.

Case presentation:

Case 1: A 50-year-old patient, followed for severe plaque psoriasis evolving since the age of 27 years, complicated by peripheral joint involvement for 13 years. He developed PSC in 2012, treated with ursodeoxycholic acid at 400 mg/day. Adalimumab combined with methotrexate (15 mg/week), started 5 years ago, allowed good skin and joint improvement and normalization of the liver balance.

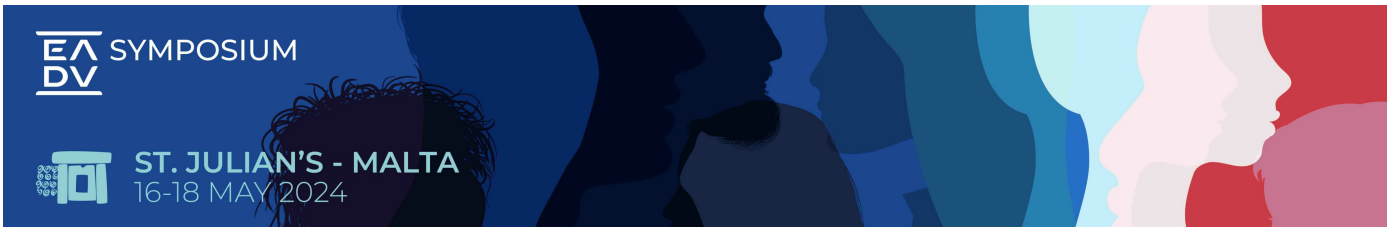
Case 2: A 72-year-old woman with PBC for 25 years, treated with ursodeoxycholic acid 400 mg/day, developed extensive psoriasis vulgaris lesions for 4 years, without associated joint involvement. The liver function tests were normal except for a mild biological cholestasis (GGT 81 IU/l). Viral serologies were negative. Antinuclear antibodies were positive at 1/320 with anti-M2 specificity. Liver elastography (Fibroscan) showed an elasticity measured at 6.3 Kpa. After failure of dermocorticoids, a treatment by UVB phototherapy allowed a significant improvement.

Discussion:

Autoimmune liver diseases can present either as a cholestatic form including PBC and PSC, or as a cytolytic form represented by AHI. The overlap of the two forms is possible. They are often associated with other autoimmune diseases, the most frequent being Gougerot-Sjögren syndrome, systemic scleroderma and thyroiditis. The coexistence of psoriasis and ALD is very rare and only few studies have reported on it. To our knowledge, there is no available data on the frequency of ALD in large cohorts of patients with psoriasis. Our two observations demonstrate the association between psoriasis and ALD: in one patient psoriasis occurred before the discovery of ALD and in the other case it occurred after. This association does not seem to modify the evolution of each of the two diseases. It raises the question of the hepatotoxicity of the treatments used in psoriasis. Paradoxically, anti TNF drugs allowed a normalization of the liver balance in one of our two patients.

Conclusion:

The association of autoimmune liver diseases with psoriasis is extremely uncommon and presents a treatment challenge to clinicians.



Abstract N°: 1818

Guselkumab in real clinical practice: achieving a "super response" and quality of life indicators

Irina Vladimirova[1], Larisa Kruglova[2]

[1]St. Petersburg State University, Russian Federation, [2]Central State Medical Academy, Russian Federation

Introduction & Objectives: Psoriasis is a chronic immune-mediated systemic disease that significantly affects the quality of life of patients. This is due to social stigma, loss of self-confidence, subjective sensations (itching, pain), and discomfort. Controlling the disease and improving patients' quality of life are the main goals of psoriasis treatment. One of the promising drugs that significantly improves the quality of life of patients with moderate and severe psoriasis is the interleukin (IL) 23 inhibitor guselkumab.

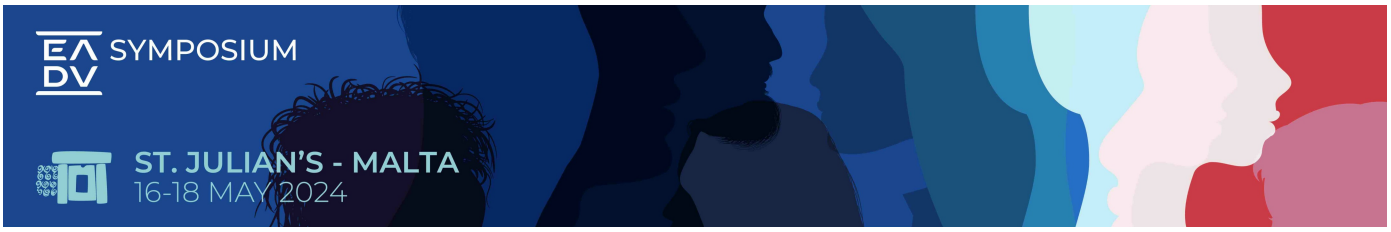
The purpose of the study was to evaluate the effectiveness of therapy with the IL-23 inhibitor guselkumab and its impact on quality of life indicators in patients with moderate and severe psoriasis in real clinical practice.

Materials & Methods: A retrospective study of 30 patients diagnosed with widespread vulgar psoriasis was conducted. Initial indicators were assessed using the PASI (Psoriasis Area and Severity Index), BSA (Body Surfase Area), and sPGA (Static Physician Global Assessment) indices. Quality of life indicators were assessed using the DLQI (Dermatology Life Quality Index) and SF-36 (Social Functioning) scales. All patients received treatment with the IL-23 inhibitor guselkumab according to the standard regimen. The effectiveness of therapy was assessed by the dynamics of PASI, BSA, sPGA, DLQI and SF-36 indicators after 12 weeks of therapy.

Results: The study involved 30 patients, of whom there were 19 (63.0%) men and 11 (37.0%) women, of working age from 20 to 60 years, on average - 45.5 [35.5; 52.75] years, the age of onset of psoriasis is from two to 44 years, on average 29.0 [18.25; 30.75] years, that is, the manifestation of psoriasis predominated at a young age, the duration of the disease varied from 1 year to 44 years, on average - 17.5 [7.5; 21.75] years.

Biologic therapy with guselkumab resulted in statistically significant improvements in all measures at 12 weeks for each patient ($p < 0.001$). A high statistical significance of the difference between the baseline and after guselkumab therapy was demonstrated in terms of the PASI, BSA, and PGA indices ($p < 0.001$). All patients with a "super response" achieved complete PASI 100 skin clearing by the 12th week of therapy. Changes in PASI index scores led to a statistically significant improvement in quality of life scores on the Dermatological Quality of Life Index scale ($p < 0.001$). The SF-36 scale showed a statistically significant result ($p < 0.001$) for both the Physical Health (PH) and Mental Health (MH) scales after treatment with guselkumab. Statistically significant differences before and after treatment with guselkumab were obtained in the values of the physical component of health scale on the component scales: "physical functioning" ($p < 0.001$), "pain intensity" ($p < 0.001$), "general health status" ($p < 0.001$) and psychological component according to the "social functioning" component scale ($p < 0.001$).

Conclusion: Achieving high quality of life indicators plays a leading role in the treatment of patients with severe psoriasis. The IL-23 inhibitor guselkumab allows one to successfully achieve the main goals of treatment – disease control and preservation of patients' quality of life. In our study, during therapy with guselkumab, patients with clear skin achieved better quality of life indicators. Early and more effective treatment of psoriasis can have long-term benefits throughout the life of patients.



Abstract N°: 1835

Prognostication of psoriasis progression using immunohistochemical changes data

Anastasia Luchynina[1], Iryna Vozniak[1], Orysya Syzon[1], Marianna Dashko[1], Iryna Chaplyk-Chyzho[1], Hennadiy Astsaturov[1]

[1]Danylo Halytsky Lviv National Medical University, Department of Dermatology, Venereology, Lviv

Introduction & Objectives: Considering the widespread prevalence of psoriasis globally, ranging from 3.5% to 5% in the general spectrum of skin diseases (which account for 9% overall) and affecting 35-38% of hospitalized individuals, coupled with its enduring, recurrent, and incurable nature, particularly impactful on the active, working-age demographic, alongside the rising incidence of therapy-resistant cases leading to social adaptation challenges, temporary incapacity for work, and sometimes disability,the development of a logistic regression model appears warranted.

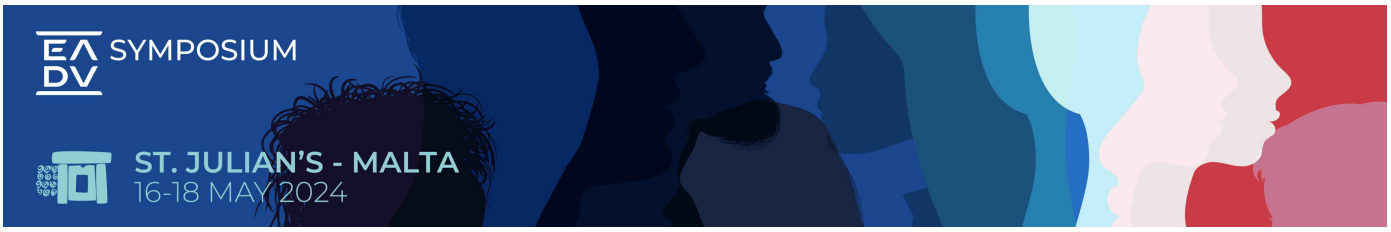
Materials & Methods: This study presents comprehensive data from the examination of 70 patients, both male and female, aged 21 to 56, diagnosed with common psoriasis vulgaris in progressive stages of mild to moderate degree, with a minimum disease duration of one year. Additionally, a control group of 20 generally healthy individuals was included for comparison. Psoriatic disease severity and incidence were evaluated using the PASI index, while the impact of psoriasis on quality of life was assessed through psychometric testing, specifically the Psoriasis Disability Index (PDI) and the Dermatology Life Quality Index (DLQI).

The IHC technique utilized formalin-fixed and paraffin-embedded samples, which were subsequently stained with hematoxylin and eosin. Primary antibodies, including monoclonal antibodies against CD3, CD68, Ki-67, VEGF, CD34, p63, S100, and a polyclonal antibody against MMP-9, were used. Antibody titers for each marker were determined using antibody diluent (DakoCytomation) as the solvent for the solution.

Results: The study developed a logistic regression model based on the collected data, facilitating the prognostication of psoriasis progression using immunohistochemical changes. Results indicate that a high or excessive expression intensity of VEGF, MMP-9, CD34, CD3, CD68, and Ki-67 markers reliably ($p<0.05$) signifies an increased risk of psoriasis progression. The sensitivity of these reactions is notably high, ranging from 75% to 100% (75%, 93.8%, 93.8%, 93.8 %, 93.8 % and 100 %, respectively).

Furthermore, analysis of DLQI and PDI indices revealed a reverse correlation with life quality. Patients with psoriasis duration of less than 10 years exhibited the lowest life quality indices, while frequent recurrences also detrimentally affected life quality. Moreover, a consistent inverse relationship between psoriasis severity and life quality was observed across all respondents. Specifically, mild psoriasis significantly impacted life quality (11-20 points), while a moderate course led to substantial deterioration (21-30 points). These findings underscore the significant influence of psoriasis on patients' quality of life and highlight the importance of early detection and intervention to mitigate its impact.

Conclusion: Based on the immunohistochemical (IHC) data, a logistic regression model has been developed, enabling the prediction of the course of psoriasis vulgaris. The model indicates that high or excessive expression intensity of VEGF, MMP-9, CD34, CD3, CD68, and Ki-67 markers reliably predicts an increased risk of progressive psoriasis ($p<0.05$). The sensitivity of these reactions ranges from 75% to 100% (75 %, 93.8 %, 93.8 %, 93.8 %, 93.8 % and 100 %, respectively). These findings highlight the potential of IHC analysis in forecasting the progression of psoriasis vulgaris and its associated risks.



Abstract N°: 1838

Follicular psoriasis : a rare entity

Amani Fliti[1], Meryem Elomari Alaoui[1], Meriem Meziane[1], Nadia Ismaili[1], Laila Benzekri[1], Karima Senouci[1]

[1]Department of Dermatology, Mohamed V University of Rabat, Ibn Sina University Hospital, Rabat, Morocco

Introduction & Objectives:

Psoriasis is one of the most common inflammatory dermatose and, in most patients, presents with erythematous scaling plaques on extensor areas. There are numerous classically clinical variants, including guttate, erythrodermic, verrucous, inverse, pustular, palmoplantar, linear, annular, nail, and a minor variant as follicular psoriasis.

Materials & Methods:

We report the clinical and histological findings of follicular psoriasis in one patient to raise awareness of this rare entity.

Results:

A 12-years-old child with a personal and family history of psoriasis who presented with a skin lesions that had been evolving for 4 months.

Clinical examination revealed multiple erythematous, spiny, 1–3 mm sized, follicular, hyperkeratotic papules resulting in plaques on the neck, elbows and lower back. Scales were thin with a shiny appearance. Palms, soles and nails were not affected. General status was conserved and no lymphadenopathy was found. Histopathologic examination of a biopsy showed acanthotis, hypogranulosis and marked parakeratosis in the follicular epithelium and the interfollicular epidermis with neutrophilic microabscess and keratotic plugs . Based on these findings a diagnosis of follicular psoriasis (FP) was made . A treatment based on a preparation of dermocorticoid and emollient was implemented, which led to a remarkable clinical improvement. After 2 months, there were no new lesions and the patient was kept on emollient only.

Although FP was first described in 1920 by McLeod, fewer than 30 cases have been reported in the literature. Follicular psoriasis is an underdiagnosed variant of psoriasis, characterized by scaly follicular papules on the trunk and extremities.

Two clinical forms have been reported: The adult form which is characterised by discrete, widespread, erythematous, scaly follicular papules, usually affecting the thighs. The infantile form, which presents either as localised asymmetric patches of follicular lesions that may affect mainly the trunk and armpits, or as a generalised eruption similar to pityriasis rubra pilaris. There seems to be a higher prevalence in dark-skinned patients and in those with plaque- type-psoriasis on the scalp . An association with diabetes mellitus has also been reported .

Follicular psoriasis poses a problem of differential diagnosis with PRP, spinolosic lichen, follicular eczema and acute suppurative folliculitis, hence the importance of histology in the diagnosis.

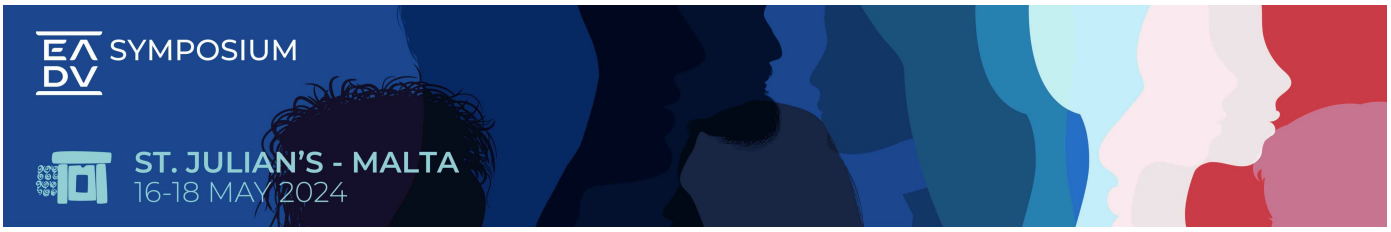
Follicular psoriasis is a chronic disease, lasting from 6 months to 23 years, although lesions in children may be of shorter duration

Once the diagnosis of follicular psoriasis has been made, treatments with more conventional psoriasis therapies such as narrowband ultraviolet B light, and methotrexate can be helpful in resolving lesions and although the efficacy of topical steroids in follicular psoriasis has not yet been documented, our patient progressed very well on topical steroids

Conclusion:

The follicular involvement in psoriasis is neglected , so More case reports and long- term follow-up are needed to clarify

the clinical spectrum and the course of this unusual variant of psoriasis.



Abstract N°: 1870

Cutaneous lichen planus following psoriasis: Wolf's isotopic response

Meryem El Omari Alaoui[1], Fliti Amani[1], Hamada Syrine[1], Meziane Meriem[1], Ismaili Nadia[1], Benzekri Laila[1], Senouci Karima[1]

[1]department of dermatology, mohamed V university of rabat, ibn sina university hospital, morocco

Introduction & Objectives:

Wolf's isotopic phenomenon is defined as the appearance of a new skin disease at the same site as a previously cured, unrelated skin disease.

The first report of such a case dates back to 1929, when Gougerot and Filliot described a case of lichen planus that developed in a scar of a herpes zoster eruption of 2 months' duration. Another report appeared in 1938, describing a case in which lichen planus developed in a herpes zoster site 3 years after the original zoster eruption.2

Materials & Methods:

Herein we report a case of wolf's isotopic response cutaneous lichen planus following psoriasic lesion.

Results:

The patient was 63 years old, with no previous pathological history of note, and had been treated for extensive plaque psoriasis for 20 years treated with dermocorticoids and phytotherapy.

On clinical examination, he presented with erythemato-squamous plaques all over the body, particularly in the bastion areas, with a few infiltrating purplish patches on the upper back and elbows.

Dermoscopic examination of the purplish patches revealed linear, reticulated, lacy, bluish-white lesions (Wickham striae)

Histology of a papule showed orthokeratotic hyperkeratosis, hypergranulosis, irregular hyperacanthosis with a dermal lymphocytic infiltrate, leading to the conclusion of cutaneous lichen.

The patient was treated with a topical application of clobetasol propionate once a day for 3 months with good progress and disappearance of the lesions, leaving hyperpigmented scarring.

Lichen planus (LP) and psoriasis are chronic inflammatory skin diseases. Both diseases are linked to genetic, immunological factors and can be induced by environmental triggers, such as mechanical lesions

We report here a case of lichen planus, which appeared on psoriasis lesions, a phenomenon known as "Wolf's isotopic response".

Although the concept of the isotopic response was conceived as being analogous to Köbner's isomorphic response, and despite the similarities between the two terms, the similarities are only "skin deep," and there is a major difference between the two. Isomorphic response means "the same morphology" and describes the appearance of the same disease at another location. The term isotopic response describes the appearance of an altogether different disease at the site of an already healed skin disease.

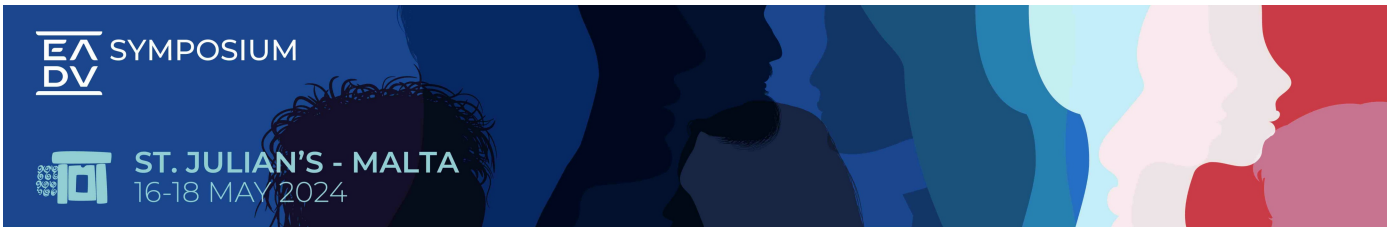
The occurrence of cutaneous lichen lesions at the site of a healed dermatosis has been widely reported; the underlying dermatosis is almost always a herpetic infection . The novelty of this presentation lies in the fact that cutaneous lichen lesions have developed on psoriasis scars, which, to our knowledge, has never been described in the literature.

The pathogenesis of WIR remains unclear and includes vascular, immunological, and viral factors. Some authors state that the herpetic infection, by destroying cutaneous nerve fibers, could trigger immune dysregulation phenomena, thus favoring the development of inflammatory reactions or causing local immunosuppression.

The differential diagnosis between these two dermatoses is extremely important, especially if the treatment differs.

Conclusion:

Wolf’s isotopic response has been reported in more than 200 patients with various types of secondary dermatosis. However, Lichen planus after psoriasis has not been reported. Further research will be needed to understand the exact pathogenesis and epidemiology of this response.



Abstract N°: 1961

Successful Treatment of Severe Refractory Pustular Psoriasis with Sulfasalazine: A Case Report

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Introduction & Objectives:

Psoriasis, characterized by chronic T cell-mediated inflammation, encompasses various clinical phenotypes, including the rare variant known as pustular psoriasis. Pustular psoriasis typically manifests as sterile pustules on an erythematous base, presenting in different subtypes such as palmoplantar pustular psoriasis (PPPP), acrodermatitis continua of Hallopeau (ACH), and generalized pustular psoriasis (GPP). Due to limited understanding of its pathologic mechanisms, treating pustular psoriasis proves challenging. Although medications approved for psoriasis vulgaris are often used off-label for pustular variants due to limited options, they frequently fail to provide relief, rendering pustular psoriasis notoriously treatment-refractory for many patients. We report a case of a patient with severe recalcitrant pustular psoriasis with elements of ACH who failed multiple topical and biologic agents, but ultimately responded to sulfasalazine.

Materials & Methods:

A 57-year-old woman with an initial diagnosis of plaque psoriasis presented to the clinic in November 2016 with worsening lesions despite ongoing tildrakizumab treatment. Her extensive medical history included unsuccessful treatments with various topical agents. Over the subsequent seven years, treatment with adalimumab, secukinumab, guselkumab, risankizumab, and brodalumab proved ineffective. Disease progression grew and now involved features suggestive of ACH on all toes and plantar feet bilaterally.

Results:

Given her atypical morphology and distribution of lesions, a skin biopsy was obtained which showed features consistent with pustular psoriasis. Due to contraindications for acitretin, methotrexate, and cyclosporine, sulfasalazine was initiated and gradually escalated, resulting in complete clearance of lesions after four months. The patient did not experience any adverse effects or laboratory abnormalities during treatment.

Conclusion:

This case adds to the evidence supporting sulfasalazine as an effective treatment for patients with severe refractory pustular psoriasis, or with contraindications to other systemic therapies including methotrexate, cyclosporine, and acitretin. Although the mechanism of sulfasalazine is not completely understood, it is believed to reduce ICAM-1 expression, leukotriene synthesis, interleukins and immunoglobulins, and T-lymphocytes, which consequently helps reduce the inflammation manifested by psoriasis. Our data support the initiation of larger, randomized, controlled studies of sulfasalazine in both treatment-naïve and treatment-refractory pustular psoriasis patients.