EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 74

Visceral type of herpes zoster in an 11-Year-Old Girl with Alopecia Areata on Tofacitinib Therapy: A Case Report

Daria Luk[1], Bohdan Lytvynenko[2]

[1]MNE "Dermatovenerology" Hospital, Ukraine, [2]P. L. Shupyk National Health Care University of Ukraine, Ukraine

Introduction & Objectives:

Alopecia areata (AA) is an autoimmune disorder that results in chronic hair loss and is commonly observed in pediatric patients. Janus kinase inhibitors (JAK-inhibitors) have emerged as a promising therapeutic option for treating AA, with tofacitinib being a commonly used drug. However, tofacitinib can cause viral infections due to its immunosuppressive properties.

Here, we present a case report of herpes zoster in an 11-year-old girl with alopecia areata on tofacitinib therapy and to emphasise the importance of monitoring patients for viral infections and evaluating patients with complaints of acute pain during treatment with tofacitinib.

Materials & Methods:

We present the case of an 11-year-old girl diagnosed with alopecia areata, who received topical and intralesional corticosteroids treatment for 9 months with unsatisfactory results. The patient's severity of alopecia tool (SALT) score was 58 at the start of tofacitinib therapy, which promoted the initiation of targeted therapy with Janus kinase inhibitors, specifically tofacitinib at a dose of 5 mg daily. Within two weeks of starting tofacitinib treatment, the patient developed herpes zoster infection.

Results:

The patient presented with complaints of toothache in the mandibular area on the right side and acute abdominal pain. Physical examination did not reveal any dental or surgical pathology, but the patient had a skin rash on the right side of her neck, consistent with herpes zoster. Laboratory investigations did not reveal any signs of immunodeficiency. The patient was diagnosed with herpes zoster and treated with valacyclovir 1000 mg daily for 7 days and continued to receive tofacitinib at the same dose. The herpes zoster infection completely resolved within 5 days of starting antiviral treatment. The patient's alopecia areata also responded well to tofacitinib therapy.

Conclusion:

Our case highlights the potential risk of herpes zoster infection in pediatric patients receiving tofacitinib therapy. It is essential for clinicians to monitor patients for signs of viral infections, especially in the first few weeks of therapy. Clinicians should also be aware of the possibility of the visceral type of herpes zoster, which can manifest as acute abdominal pain and mimic surgical pathology. Furthermore patient education and close monitoring are crucial for the early identification and management of side effects associated with this therapy. In addition, the effectiveness of JAK-inhibitors should be assessed through the use of appropriate outcome measures such as the SALT score, which can guide treatment decisions and monitor response to therapy and our case demonstrates the potential efficacy of tofacitinib 5 mg daily for the treatment of alopecia areata, especially in patients with SALT $\geq$ 50 scores who have failed previous therapies. Clinicians should consider monitoring patients for signs of herpes zoster infection and implementing appropriate treatment strategies to minimise the risk of adverse outcomes.

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Abstract N°: 265

Clinical assessment of pain, tolerability and patient preference of switching guselkumab from prefilled syringe to an autoinjection pen.

Joaquin Borrás Blasco[1], Rebeca Alcala[2], Maria Matellanes[2], Silvia Cornejo-Uixeda[1], Elvira Castera[1]

[1]Hospital Sagunto, Pharmacy Service, Spain,[2]Hospital Sagunto, Dermatology, Spain

Introduction & Objectives:

Guselkumab is a monoclonal antibody that selectively targets IL-23, for subcutaneous (SC) administration by 2 single-use injection devices providing bioequivalent amounts of guselkumab: a ready-to-use, prefilled syringe and an integrated, disposable delivery system, the autoinjection pen. Although, pens have been shown to be preferred over syringes by patients requiring long-term SC administration of medications, there are no data on acceptability, preference, tolerability and pain in the use of guselkumab autoinjection pen in patients with chronic inflammatory diseases. The aim of this study is To assess pain, acceptability, patient preference, and tolerability after switching guselkumab from a prefilled syringe to an autoinjection pen.

Materials & Methods:

All adult patients with psoriasis and psoriatic arthritis treated for at least 6 months with the guselkumab syringe were recruited from 1 January 2019 to 15 December 2022. Gender, age, diagnosis, self-administration and pain perception of guselkumab syringe were recorded. At the first visit, patients completed pre-auto-injection pen questionnaire. Patients were instructed on proper administration of guselkumab by autoinjection pen. After 2 months of guselkumab self-injection using the autoinjection pen, patient experience, adherence, preference, pain perception and safety of each administration was assessed using post-guselkumab by autoinjection pen questionnaire.

Results:

40 patients (psoriatic arthritis n=6, psoriasis n=34; 55% men; 45% women) met inclusion criteria. Mean age was 54.1 ± 12.5 years. All patients self-administered guselkumab by autoinjection pen; the full dose of guselkumab was injected. Patients reported >90% adherence to guselkumab assessed with the hospital pharmacy dispensation records. Pain at the injection site was significantly reduced with the use of the autoinjection pen. The mean (sd) visual analogue scale (VAS) score was 4.37 (1.88) for the syringe compared with 2.15 (1.96) for the pen ($p < 0.001$). All patients considered that the use of the autoinjection pen was easier than the syringe and 98% chose the pen as their preferred delivery system. No safety-related findings related to guselkumab autoinjection pen administration were identified.

Conclusion:

Patients experienced less pain self-administering guselkumab via the autoinjection pen and preferred it versus the syringe. Furthermore, patients perceived the pen to be easier to use and more convenient. This study provides further evidence to support the use of the auto-injection pen as an advantageous delivery option for guselkumab.

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Abstract N°: 270

From Scales to Smooth: 308nm Excimer laser-assisted cost effective, safe, innovative approach to resistant scaly dermatoses

Dr Neha Gupta*[1]

[1]Napier Town, Jabalpur, India

Introduction & Objectives: Scaly dermatoses include a wide array of chronic inflammatory skin conditions like psoriasis, seborrheic dermatitis, atopic dermatitis, lichen planus, prurigo nodularis and pityriasis amiantacea. Autoimmunity, leading to increase in proinflammatory cytokines is involved in the pathogenesis. The scaly skin conditions are almost always chronic with long periods of intractable itching, impacting quality of life severely. The topical treatment options like corticosteroids and keratolytic shampoos and lotions are effective only in mild disease. Severe disease requires oral immunosuppressive agents and biologics which are not only high on cost and restrict affordability but also reported with many adverse effects, thereby requiring regular investigations, increasing the cost of therapy.

The objectives:

1. To diagnose scaly skin conditions.
2. To assess the severity of the scaly skin disorders and the need for intervention.
3. To evaluate the effectiveness of 308nm Excimer Laser in treating resistant cases.

Materials & Methods: Patients aged 18 years and above, both males and females, with different scaly skin or scalp disorders are assessed and diagnosed. After a detailed history, psychological evaluation and examination, patients are advised 308nm Excimer laser treatment. Sessions are done 1-3 times weekly. The dose delivered is carefully decided and monitored at every session taking into account the skin type, age of the patient, skin condition, site of scales, severity of the condition and response to treatment. Patients are assessed for improvement after every 10 sessions and were followed up for a period of one year.

Results: Patients showed faster and superior response with clearance of flakes with 308nm Excimer laser without any addition of immunosuppressive agents or biologics. Complete remission has been observed in patients after 30-50 sessions.

Conclusion: The stubborn, recalcitrant scaly skin disorders themselves and their long duration of treatment has a major impact on the quality of life of patients, psychologically, physically and economically. 308nm excimer laser technology acts as a feasible, faster, efficacious, accessible, well tolerated and safe wonder wand in such cases as an alternative or an add-on therapy.

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Abstract N°: 392

Sustained efficacy and safety of bimekizumab in patients with active psoriatic arthritis and prior inadequate response to tumour necrosis factor inhibitors: Results from the phase 3 BE COMPLETE study and its open-label extension up to 1 year

Laura Coates[3], Robert Landewé[4], Iain Mcinnes[5], Philip Mease[6], Christopher T. Ritchlin[7], Yoshiya Tanaka[8], Akihiko Asahina[9], Frank Behrens[10], Dafna Gladman[11], Laure Gossec[12], Alice B. Gottlieb[13], Richard B. Warren[14, 15], Barbara Ink[16], Rajan Bajracharya[16], Jason Coarse[17], Joseph F. Merola[18, 19]

[1]Dermatology Centre, Northern Care Alliance NHS Foundation Trust, [2]NIHR Manchester Biomedical Research Centre, Manchester University NHS Foundation Trust, Manchester Academic Health Science Centre, United Kingdom, [3]Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Diseases, University of Oxford and Oxford Biomedical Research Centre, Oxford University Hospitals NHS Trust, Oxford, United Kingdom, [4]Amsterdam Rheumatology & Clinical Immunology Center, Amsterdam and Zuyderland MC, Heerlen, Netherlands, [5]College of Medical Veterinary and Life Sciences, University of Glasgow, Glasgow, United Kingdom, [6]Swedish Medical Center and Providence St. Joseph Health, University of Washington, Seattle, Washington, United States, [7]Allergy, Immunology & Rheumatology Division, University of Rochester Medical School, Rochester, New York, United States, [8]The First Department of Internal Medicine, University of Occupational and Environmental Health, Kitakyushu, Fukuoka, Japan, [9]Department of Dermatology, The Jikei University School of Medicine, Tokyo, Japan, [10]Division of Rheumatology, University Hospital and Fraunhofer Institute for Translational Medicine & Pharmacology ITMP, Fraunhofer Cluster of Excellence Immune-Mediated Diseases CIMD, Frankfurt, Goethe University, Frankfurt am Main, Germany, [11]Schroeder Arthritis Institute, Krembil Research Institute, Toronto Western Hospital, University Health Network, University of Toronto, Ontario, Canada, [12]Sorbonne Universite and Pitie-Salpetriere Hospital, Paris, France, [13]Department of Dermatology, The Icahn School of Medicine at Mount Sinai, New York, United States, [14]Dermatology Centre, Northern Care Alliance NHS Foundation Trust, Manchester, United Kingdom, [15]NIHR Manchester Biomedical Research Centre, Manchester University NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, United Kingdom, [16]UCB Pharma, Slough, United Kingdom, [17]UCB Pharma, Morrisville, North Carolina, United States, [18]Department of Dermatology, Harvard Medical School, Brigham and Women's Hospital, Boston, Massachusetts, United States, [19]Division of Rheumatology, Harvard Medical School, Brigham and Women's Hospital, Boston, Massachusetts, United States

Introduction & Objectives:

Bimekizumab (BKZ), a monoclonal IgG1 antibody that selectively inhibits interleukin (IL)17F in addition to IL-17A, has shown superior efficacy to 16 weeks vs placebo (PBO) and tolerability in patients with active psoriatic arthritis (PsA) in the phase 3 BE OPTIMAL and BE COMPLETE studies.1,2 Efficacy of BKZ to 52 weeks has also been demonstrated in the BE OPTIMAL study of biologicnaïve patients with PsA.3 Long-term efficacy and safety results of BKZ treatment in patients with active PsA and prior inadequate response or intolerance to tumour necrosis factor inhibitors (TNFi-IR) are reported up to 1 year.

Materials & Methods:

BE COMPLETE (NCT03896581) included a 16-week doubleblind, PBOcontrolled period. Week 16 completers were eligible for entry into BE VITAL (NCT04009499; open-label extension). BE VITAL included patients from BE OPTIMAL and BE COMPLETE; data here are for patients randomised at baseline (BL [Week 0]) of BE COMPLETE

only, up to 1 year. Patients were randomised 2:1 to subcutaneous BKZ 160 mg every 4 weeks or PBO. At Week 16, PBO patients switched to BKZ (PBO/BKZ; received 36 weeks of BKZ treatment up to Week 52). Efficacy data reported are observed case or using non-responder imputation (binary) or multiple imputation (continuous). The number of treatment-emergent adverse events (TEAEs) to Week 52 are reported for patients who received ≥1 dose of BKZ, including patients who switched from PBO to BKZ at Week 16.

Results:

388/400 (97.0%) patients completed Week 16; 377 (94.3%) entered BE VITAL and 347 (86.8%) completed Week 52. Improved efficacy responses with BKZ treatment were sustained from Week 16 to Week 52 (**Table**). At Week 52, 51.7% BKZ and 40.6% PBO/BKZ patients achieved American College of Rheumatology (ACR) 50. In patients with BL psoriasis (≥3% body surface area), 65.9% BKZ and 60.2% PBO/BKZ patients achieved Psoriasis Area Severity Index (PASI) 100 (complete skin clearance) at Week 52 (**Figure**). At Week 52, 47.2% BKZ and 33.1% PBO/BKZ patients achieved minimal disease activity (MDA).

To Week 52, 243/388 (62.6%) patients had ≥1 TEAE whilst receiving BKZ (exposure-adjusted incidence rate per 100 patient-years [100 PY]: 126.0); 23 (5.9%) patients reported a serious TEAE (7.0/100 PY). Malignancies (excluding non-melanoma skin cancers) were reported by 2 (0.7%) patients receiving BKZ (0.8/100 PY). *Candida* infections were reported by 25 (6.4%) patients receiving BKZ (7.7/100 PY); all were reported as mild or moderate by investigators; none were systemic. Two cases of oral candidiasis led to study discontinuation. There was one death (sudden death; patient with history of cardiac events), two adjudicated major adverse cardiac events and no definite or probable adjudicated inflammatory bowel disease.

Conclusion:

In patients with active PsA who are TNFi-IR, bimekizumab demonstrated sustained clinical efficacy from Week 16 up to Week 52. The safety profile was consistent with previous reports.1–3

References:

1. McInnes IB. Lancet 2023;401:25–37;* **2.*** Merola JF. Lancet 2023;401:38–48; **3.** Ritchlin C. Arthritis Rheumatol 2022;74 (suppl 9).

Funding:

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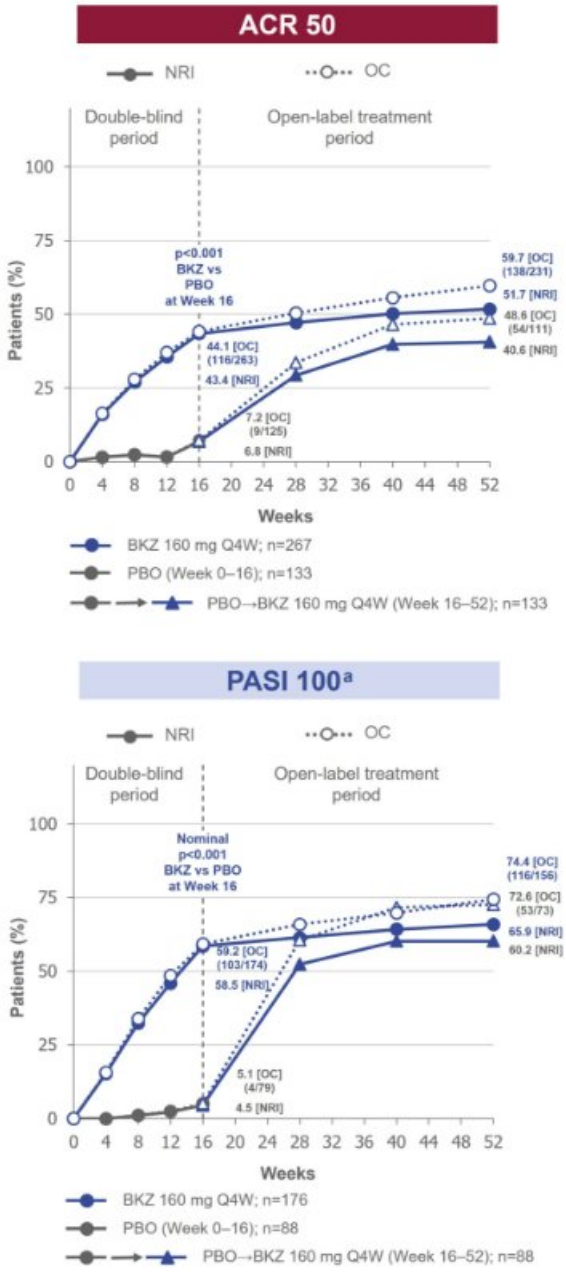
Table. Efficacy at Week 16 and Week 52

	Week 16		Week 52	
	PBO N=133	BKZ 160 mg Q4W N=267	PBO/BKZ 160 mg Q4W N=133	BKZ 160 mg Q4W N=267
ACR 20 [NRI]	21 (15.8)	179 (67.0)	80 (60.2)	182 (68.2)
ACR 70 [NRI]	1 (0.8)	71 (26.6)	34 (25.6)	95 (35.6)
PASI 75 [NRI],[a]	9 (10.2)	145 (82.4)	71 (80.7)	148 (84.1)
PASI 90 [NRI],[a]	6 (6.8)	121 (68.8)	65 (73.9)	131 (74.4)
MDA responder rate [NRI]	8 (6.0)	118 (44.2)	44 (33.1)	126 (47.2)
HAQ-DI CfB [MI], mean (SE)	−0.07 (0.04)	−0.38 (0.03)	−0.35 (0.05)	−0.39 (0.03)
mNAPSI resolution [NRI],[b]	12 (14.5)	73 (45.9)	51 (61.4)	107 (67.3)
Enthesitis resolution [NRI],[c]	8 (22.2)	52 (49.1)	21 (58.3)	60 (56.6)
Dactylitis resolution [NRI],[d]	6 (42.9)	24 (70.6)	12 (85.7)	29 (85.3)
	Week 16		Week 40[e]	
SF-36 PCS CfB [MI], mean (SE)	1.4 (0.7)	7.3 (0.5)	7.3 (0.9)	8.4 (0.6)

Randomised set. n (%) unless otherwise specified. [a] In pts with psoriasis affecting ≥3% body surface area at BL, PBO n=88, BKZ n=176; [b] In pts with mNAPSI >0 at BL, PBO n=83, BKZ n=159; [c] In pts with LEI >0 at BL, PBO n=36, BKZ n=106; [d] In pts with LDI >0 at BL, PBO n=14, BKZ n=34; [e] Data not collected at Week 52. ACR: American College of Rheumatology; BKZ: bimekizumab; BL: baseline; CfB: change from baseline; HAQ-DI: Health Assessment Questionnaire – Disability Index; LDI: Leeds Dactylitis Index; LEI: Leeds Enthesitis Index; MDA: minimal disease activity; MI: multiple imputation; mNAPSI: modified Nail Psoriasis Severity Index; NRI: non-responder imputation; PASI: Psoriasis Area and Severity Index; PBO: placebo; PCS: Physical Component Summary; Pt: patient; Q4W: every four weeks; SE: standard error; SF-36: Short-Form 36-item Health Survey.

Figure. ACR 50 and PASI 100 responses over time to Week 52 [NRI and OC]



Randomised set. [a] In pts with psoriasis affecting ≥3% body surface area at BL. For binary variables, p values were obtained from logistic regression with treatment, prior TNFi exposure and region as factors. Nominal p values are not powered or adjusted for multiplicity and should not be used to assess statistical significance. ACR: American College of Rheumatology; BKZ: bimekizumab; BL: baseline; NRI: non-responder imputation; OC: observed case; PASI: Psoriasis Area and Severity Index; PBO: placebo; Pt: patient; Q4W: every four weeks; TNFi: tumour necrosis factor inhibitor.

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Abstract N°: 541

Efficacy and Survival of Infliximab is Enhanced with Additional Systemic Immunosuppression in Patients with Psoriasis

Sarajeni Pugalnenthy[1], Becky Thomas[1], Klare Bryant[2], Ben Thompson[2], Richard Parslew[2], Vincent Yip*[2]

[1]University of Liverpool, Liverpool, United Kingdom,[2]Liverpool University Hospitals NHS Foundation Trust, Department of Dermatology, Liverpool, United Kingdom

Introduction & Objectives:

Infliximab is a monoclonal antibody that inhibits tumour necrosis factor-alpha and is licensed for use in patients with severe psoriasis. However, monotherapy is not always sufficient for disease control as patients can develop tachyphylaxis and infliximab survival was only 35% after 3 years in a cohort of biologic naïve patients. Addition of conventional immunomodulation to infliximab could improve psoriasis outcomes. We report our experiences of additional systemic immunosuppression in psoriasis patients prescribed infliximab from a tertiary dermatology unit in the UK.

Materials & Methods:

Psoriasis patients prescribed infliximab together with systemic immunosuppression were identified by pharmacy records from November 2005 to November 2022. Records were reviewed to determine demographics, systemic immunosuppression agents, indication, duration, effectiveness, and adverse events of combination therapy.

Results:

Since 2005, 21 males (62%) and 13 females (38%) received infliximab with systemic immunosuppression. The mean and median ages for patients were 48.6 and 47.5 years, respectively (range 24-74 years). Twenty-one (62%) patients were biologic naïve prior to infliximab. Methotrexate (44%) and hydroxycarbamide (42%) were the most frequently prescribed additional systemic immunosuppressants. Azathioprine (9%), acitretin (2%) and ciclosporin (2%) were also prescribed. Indications for additional immunosuppression included worsening psoriasis (52%), joint pains (19%), infliximab antibodies (14%), prior exposure to more than two biologics (10%) and switching of systemic immunosuppression (5%). Additional systemic immunosuppression was effective for the underlying indication in 80% of cases. The most common adverse effects requiring discontinuation of systemic immunosuppression were liver abnormalities (n=8), GI upset (n=6) and infections (n=3). The mean survival for infliximab in this cohort was 123 months (median 127 months). Infliximab was ongoing in 25 (74%) patients who achieved either 75% reduction in psoriasis area and severity index (PASI) score or a 50% reduction in PASI score and a 5 point reduction in dermatology life quality index (DLQI). It was discontinued in 8 (24%) patients. The reasons for discontinuation were death (n=3), loss of efficacy (n=2), recurrent infections (n=1), infusion reaction (n=1) and vasculitis (n=1). The causes of death were glioblastoma (n=1), pulmonary fibrosis (n=1) and unknown (n=1). One patient moved out of area.

Conclusion:

We have demonstrated that addition of systemic immunosuppression to infliximab for treatment of psoriasis is effective and well tolerated in patients where monotherapy cannot control the disease adequately. The survival of infliximab was also prolonged. The proposed mechanisms of action include additional immunosuppressive effects on psoriasis and the reduction of immunogenicity by infliximab. However, patients should be monitored regularly and counselled with regards to potential for adverse effects with dual immunosuppression.

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Abstract N°: 613

Localized Scleroderma in the right thigh successfully treated with Tocilizumab

Adrian Ballano Ruiz[1], Ignacio Hernández Aragüés[1], Leticia Ollero Domenche[2], Yolanda Gilaberte Calzada[1]

[1]Hospital Universitario Miguel Servet, Dermatology, Zaragoza, Spain, [2]Hospital Universitario Miguel Servet, Pathological Anatomy, Zaragoza, Spain

Introduction & Objectives:

Sclerodermiform skin disorders often represent a therapeutic challenge due to the lack of agreed clinical guidelines, clinical evidence in clinical trials, and the failure of several lines of classic immunosuppressants. We present the case of a 65-year-old man with a type of unilateral deep morphea in the right thigh who was treated with tocilizumab with good control of his disease activity.

Materials & Methods:

A 65-year-old male patient, with no personal history of interest or usual treatment, started pain and inflammation in the right knee since 2013, extending to the inner and posterior aspect of the ipsilateral thigh, with associated functional impotence but without other systemic symptoms.

Analysis was performed with elevated acute phase reactants, the rest with negative serology and autoimmunity. In both skin biopsy and magnetic resonance imaging, intense fibrosclerosis of fatty, fascial, and intermuscular planes was detected.

Results:

Given these results, a presumptive diagnosis of deep morphea was reached. He started systemic corticosteroids with a good initial response, and systemic corticosteroid-sparing treatments such as cyclosporine, methotrexate, mycophenolate, and tofacitinib, all of them with failure to control the inflammatory activity, requiring increased doses of corticosteroids. With a LoSCAT activity and damage index of 15 (LoSAI 8, LoSDI 7), monthly IV tocilizumab 8mg/kg was started in January 2022, moving to a LoSCAT of 8 (LoSAI 3, LoSDI 5) after 52 weeks of treatment. , which allowed us to de-escalate corticosteroids and transition to methotrexate with good subsequent control.

Conclusion:

Tocilizumab specifically binds to both soluble and membrane-bound IL-6 receptors (IL-6Rs and IL-6Rm), blocking their activity. IL6 regulates fibroblast differentiation and collagen synthesis. It has been shown that the levels of this cytokine are increased in patients with scleroderma/morphea, and that they can serve as a biomarker of response to treatment by decreasing with the improvement of the disease.

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Abstract N°: 620

Refractory IgA pemphigus successfully managed with adalimumab in monotherapy.

Juan José Lluch-Galcerá[1], Carmen Alcoverro-Godoy[1], Manel Martinez-Molina[1], Eugeni Prat-Colilles[1], Isabel Bielsa[1], Ariadna Quer[2], Julio Bassas[1]

[1]Hospital Universitari Germans Trias i Pujol, Dermatology, Barcelona, Spain, [2]Hospital Universitari Germans Trias i Pujol, Pathology, Barcelona, Spain

Introduction: IgA pemphigus is a group of autoimmune blistering diseases characterized by a painful and pruritic vesiculopustular eruption, neutrophilic infiltration of the skin and the presence of fixed and circulating IgA antibodies against keratinocyte cell-surface antigens. The two main subtypes of IgA pemphigus are subcorneal pustular dermatosis (SPD) and intraepidermal neutrophilic dermatosis. Primary treatment options for IgA pemphigus typically include oral and topical corticosteroids, as well as dapsone. However, therapeutic alternatives are limited and there is little evidence regarding the management of refractory IgA pemphigus.

Case report: A 57-year-old male presented to our department with recurrent and intensely pruritic cutaneous lesions. Physical examination revealed multiple pustules with an erythematous base, erosions and crusts affecting 70% of the body surface area (BSA). Histological examination showed a subcorneal pustule with neutrophil exocytosis in the upper layers of the epidermis and a positive direct immunofluorescence with intercellular IgA deposits. Indirect immunofluorescence and ELISA were negative for BP180, BP230, desmoglein 1 and 3. The diagnosis of SPD subtype of IgA pemphigus was made. The patient's condition was refractory to multiple therapies over a period of 10 years, including prednisone, methotrexate, isotretinoin, acitretin, mycophenolate mofetil and rituximab. Dapsone was the only partially effective treatment, but it had to be discontinued due to hemolysis and methemoglobinemia. Therefore, adalimumab was prescribed. After three weeks, a marked improvement was observed, with a BSA <3% and lack of pruritus. A near-complete response was achieved without adverse events (AEs) for the last 6 months. No other oral medication was needed for this condition.

Discussion: IgA pemphigus is typically characterized as having a benign course and responding well to appropriate therapy, frequently involving oral corticosteroids and dapsone. However, in some cases, patients have poor response to the aforementioned treatments with a more severe clinical course. Adalimumab, through inhibition of tumor necrosis factor, can decrease the aggregation and augmented responses of neutrophils on the epidermis. In fact, adalimumab in monotherapy was the only effective treatment in our patient, with no AEs. Currently, there is no consensus on the treatment of IgA pemphigus, particularly in refractory cases. Furthermore, serious AEs, including hematology toxicity as observed in our patient, can be caused by dapsone. Adalimumab may be a treatment option for recalcitrant IgA pemphigus as well as for patients who are unable to tolerate dapsone. Further studies are needed to evaluate the efficacy and safety of adalimumab in larger patient cohorts with IgA pemphigus.

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Abstract N°: 879

Erythema dyschromicum perstans related to ribocicib therapy for invasive breast carcinoma: a case report and review of the literature

Chee Hoou Loh*[1, 2], Syed Ahmed Salahuddin[2], Choon Chiat Oh[2]

[1]MOH Holdings Pte Ltd, Singapore, Singapore, [2]Singapore General Hospital, Singapore, Singapore

Introduction & Objectives: Erythema dyschromicum perstans (EDP) is a chronic progressive pigmentary disorder that is characterized by gray or blue-brown macules or patches, commonly affecting individuals with Fitzpatrick skin types III-V. The cause of EDP is unknown, but drug-induced cases of EDP had been implicated. We present a rare case of EDP induced by ribocicib therapy for invasive breast carcinoma.

Materials & Methods: A 48-year-old Indian female presented with 8-month history of progressive, non-pruritic generalised pigmented dermatosis, which started over the lower limbs and subsequently worsened to involve her trunk, buttocks, and upper limbs. The patient was started on letrozole and ribocicib in December 2020 for invasive breast carcinoma, approximately 2 months prior to onset of dermatosis. Physical examination showed multiple small and large, hyperpigmented, brown to slate-grey patches distributed over the upper arms, forearms, thighs, lower limbs and buttocks. There was a white lacy patch seen over the right buccal mucosa and no nail abnormalities were observed.

Results: Histopathological examination showed vacuolar interface dermatitis with focal spongiosis, dermal pigmentary incontinence, with mild periadnexal and perivascular lymphocytic infiltrate. A provisional diagnosis of erythema dyschromia perstans (EDP) related to ribocicib was made. After discussion with her oncologist, ribocicib was stopped and letrozole was continued for the treatment of breast cancer. The patient was treated with emollients and topical mometasone furoate cream. On follow-up, her cutaneous pigmentation began to improve within 3 months after cessation of ribocicib.

Conclusion: EDP is an acquired macular pigmentary disorder of unknown aetiology. It presents as symmetrically-distributed grey macules over the trunk, neck, face and upper limbs1. It commonly occurs in Asian and Latino patients with darker skin phototypes. Histopathological examination may show basal vacuolar degeneration, dermal pigmentary incontinence and perivascular lymphocytic infiltrate. Clinicopathological correlation is required for a prompt diagnosis and identification of the causative drug. Although ribocicib-related EDP is rarely reported in the literature, the prominent pigmentation can be distressing for patients, which warrant increased clinician awareness. Further studies are required to understand disease pathophysiology and guide appropriate therapy.

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Abstract N°: 892

Effisayil ON, an open-label, long-term extension study of spesolimab treatment in patients with generalized pustular psoriasis: Interim results for flare treatment

Alexander A. Navarini[1], Siew Eng Choon[2], A. David Burden[3], Min Zheng[4], Akimichi Morita[5], Yuko Tanaka[6], Binqi Ye[7], Christian Thoma[8], Mark G. Lebwohl[9]

[1]Department of Dermatology, University Hospital of Basel, Basel, Switzerland,[2]Department of Dermatology, Hospital Sultanah Aminah and Clinical School Johor Bahru, Monash University Malaysia, Subang Jaya, Malaysia, [3]School of Infection & Immunity, University of Glasgow, Glasgow, United Kingdom,[4]Department of Dermatology, Second Affiliated Hospital, Zhejiang University, School of Medicine, Hangzhou, China, [5]Department of Geriatric and Environmental Dermatology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan, [6]Nippon Boehringer Ingelheim Co. Ltd, Tokyo, Japan, [7]Boehringer Ingelheim (China) Investment Co. Ltd, Shanghai, China, [8]Boehringer Ingelheim International GmbH, Ingelheim, Germany, [9]Icahn School of Medicine at Mount Sinai, New York, NY, United States

Introduction & Objectives:

Generalized pustular psoriasis (GPP) is a rare and chronic skin disease characterised by recurrent flares of extensive, sterile pustular eruptions. In patients with a GPP flare in the Effisayil 1 study (NCT03782792), treatment with intravenous (IV) spesolimab led to rapid pustular and skin clearance within 1 week. Patients completing Effisayil 1 were offered maintenance treatment with subcutaneous (SC) spesolimab in the open-label (OL), long-term extension study, Effisayil ON (NCT03886246). Patients who experienced recurrent GPP flares during Effisayil ON received OL IV spesolimab for flare treatment; here we report interim safety and efficacy data for these patients.

Materials & Methods:

In Effisayil ON, patients were offered maintenance treatment with OL SC spesolimab (300 mg every 4, 6 or 12 weeks) up to Week 252. During the maintenance treatment period, patients received OL IV spesolimab 900 mg for a new GPP flare (defined as a ≥2-point increase in Generalized Pustular Psoriasis Physician Global Assessment [GPPGA] total score and GPPGA pustulation subscore after a GPPGA total score of 0 or 1 at screening, or a ≥1-point increase in GPPGA total score and presence of fresh pustulation after a GPPGA total score of 2 at screening), followed by OL SC spesolimab 300 mg every 4 or 6 weeks.

Results:

Of 39 patients from Effisayil 1 who entered Effisayil ON, 10 (25.6%) were treated for a recurrent GPP flare by the cut-off date for this analysis. One week after the first flare treatment with OL IV spesolimab in Effisayil ON, five patients (50.0%; 95% confidence interval [CI] 23.7–76.3) achieved a GPPGA pustulation subscore of 0 (no visible pustules), and four patients (40.0%; 95% CI 16.8–68.7) achieved a GPPGA total score of 0 or 1 (clear or almost clear skin). During the first flare treatment period, nine patients (90%) reported any adverse event; one patient (10%) each reported having a severe (pustular psoriasis) or serious (required or prolonged hospitalisation for pustular psoriasis) adverse event.

Conclusion:

The rapid pustular clearance 1 week after flare treatment in Effisayil ON was consistent with the Week 1 results of

Effisayil 1, further supporting spesolimab as an effective treatment option for controlling GPP flares, even following recurrence. Overall, spesolimab demonstrated a safety profile consistent with that reported in the Effisayil 1 study.

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Abstract N°: 917

The safety profile of biological agents in patients with psoriasis and HIV: a systematic review

Niyaz Mostafa[1], Kevin Phan[2]

[1]Royal Prince Alfred Hospital, Camperdown, Australia, [2]Westmead Hospital, Westmead, Australia

Introduction & Objectives: In recent years there has been an increasing number of treatment options for psoriasis including targeted biological therapy. Biological agents are typically reserved for severe psoriasis that has failed other therapies, due to the cost and adverse effects associated due to immunosuppressing attributes. The randomized evidence that supports the use of biologics is somewhat based on a carefully selected cohort of patients and does not necessarily reflect real life clinical practice. Specific high risk populations such as patients with human immunodeficiency virus (HIV) are excluded from randomized controlled trials. Thus, there is a paucity of data related to these patients in terms of efficacy and adverse events as a result of biologic therapy. In order to address this knowledge gap, we conducted a systematic review to determine the safety profile of biological agents in patients with HIV and psoriasis.

Materials & Methods: A systematic review of existing studies was performed. Eligible studies which reported patients with a diagnosis of both psoriasis and HIV being treated with biological agents.

Results: A total of 43 studies were identified from systematic database searches after applying inclusion and exclusion criteria totalling 93 patients. In our pooled cohort, adverse events were reported in 14% (13/93) of patients. The different categories of biological agents being used were interleukin-17 (IL-17), interleukin 23 (IL-23) and anti tumor necrosis factor (anti-TNF) agents. The pooled proportion of adverse events in each group 30% (3/10), 3% (1/30) and 13% (6/45) respectively.

Conclusion: The evidence examining the safety profile of biological agents in patients with HIV and psoriasis is very limited. The data is promising however, revealing the safety of biologic use, and further prospective studies with larger cohorts are required to reaffirm the findings in the present review.

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Abstract N°: 942

Efficacy and safety of spesolimab for generalized pustular psoriasis treatment according to flare trigger

Claudia De la Cruz*[1], Akimichi Morita[2], Boni Elewski[3], Kamran Ghoreschi[4], Binqi Ye[5], Patrick Hofmann[6], Christian Thoma[6], Siew Eng Choon[7]

[1]Clínica Dermacross, Santiago, Chile, [2]Department of Geriatric and Environmental Dermatology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan, [3]Department of Dermatology, University of Alabama School of Medicine at Birmingham, Birmingham, AL, United States, [4]Department of Dermatology, Venereology and Allergology, Charité-Universitätsmedizin Berlin, Corporate Member of Freie Universität Berlin, Humboldt-Universität zu Berlin and Berlin Institute of Health, Berlin, Germany, [5]Boehringer Ingelheim (China) Investment Co. Ltd, Shanghai, China, [6]Boehringer Ingelheim International GmbH, Ingelheim, Germany, [7]Department of Dermatology, Hospital Sultanah Aminah and Clinical School Johor Bahru, Monash University Malaysia, Subang Jaya, Malaysia

Introduction & Objectives:

Generalized pustular psoriasis (GPP) is a rare, chronic and potentially life-threatening neutrophilic skin disease, characterised by episodes of widespread eruption of sterile pustules. GPP flares may be triggered by numerous factors including treatment withdrawal, medications, infection and stress. In Effisayil 1 (NCT03782792), spesolimab treatment led to superior pustular and skin clearance compared with placebo in patients with a GPP flare, with a favourable safety profile. Here we report GPP flare trigger data from Effisayil 1 according to extrinsic versus intrinsic factors to determine if mode of flare trigger affects the efficacy or safety of spesolimab.

Materials & Methods:

In this multicentre, double-blind, placebo-controlled study, patients were randomised 2:1 to receive a single intravenous dose of spesolimab 900 mg or placebo at baseline, and an optional open-label dose of spesolimab at Week 1 for persistent flare symptoms. Patients were followed for the 12-week study duration. The primary and key secondary endpoints were a Generalized Pustular Psorasis Physician Global Assessment (GPPGA) pustulation subscore of 0 (no visible pustules) at Week 1 and a GPPGA total score of 0 or 1 (clear or almost clear skin) at Week 1, respectively. The proportion of patients whose GPP flare was triggered by extrinsic factors, such as treatment withdrawal or changes, or intrinsic factors, such as infection or stress, who achieved these endpoints at Week 1 was analysed.

Results:

GPP flare trigger data were available for 36 of the 53 patients enrolled, and examined based on whether the trigger was extrinsic (outside influence) or intrinsic (internal influence). Of 25 patients (spesolimab, N=15; placebo, N=10) with flares triggered by extrinsic factors, 20 (80.0%) had triggers due to treatment withdrawal, 2 (8.0%) due to steroid treatment withdrawal and 3 (12.0%) due to other reasons. Of 11 patients (spesolimab, N=6; placebo, N=5) with flares triggered by intrinsic factors, 5 (45.5%) had triggers due to stress, 2 (18.2%) due to infection and 4 (36.4%) due to other reasons. At Week 1, a higher proportion of patients who received spesolimab versus placebo achieved the primary endpoint (GPPGA pustulation subscore 0), regardless of extrinsic or intrinsic flare trigger: extrinsic factors, 53.3% (n=8) versus 10.0% (n=1), respectively; intrinsic factors, 50.0% (n=3) versus 0.0% (n=0), respectively. Similar results were observed for the key secondary endpoint (GPPGA total score 0 or 1): extrinsic factors, 53.3% (n=8) versus 10.0% (n=1), respectively; intrinsic factors, 50.0% (n=3) versus 20.0% (n=1), respectively. Investigator-defined drug-related adverse events were seen in 33.3% (n=5) and 50.0% (n=3) of

patients in the spesolimab group versus 30.0% (n=3) and 20.0% (n=1) in the placebo group with extrinsic and intrinsic flare triggers, respectively.

Conclusion:

Regardless of the mode of flare trigger, patients with GPP treated with spesolimab achieved rapid pustular and skin clearance, and the safety profile of spesolimab up to Week 1 was broadly similar to that of placebo in both subgroups. Overall, these results suggest that the mode of flare trigger does not affect the efficacy or safety of spesolimab in treating GPP flares.

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Abstract N°: 977

Single site experience of the use of bimekizumab for the treatment of psoriasis and hidradenitis suppurativa in real-world setting

Enrico Giorgio Morales Tedone[1], Andrea Bernabeu Aicart[1], Cristina Albanell Fernández[1], David Muñoz Castro[1], Encarna Montesinos Villaescusa[1], Lucía Martínez Casimiro[1], Francisca Rausell Félix[1], Ángeles Revert Fernández[1]

[1]Hospital Clínic Universitari, València, Spain

Introduction & Objectives: Bimekizumab is the first and only dual selective inhibitor of isoforms A and F of IL-17. Bimekizumab has recently been approved for the treatment of moderate to severe plaque psoriasis and has completed phase 3 clinical development in hidradenitis suppurativa. Both immune-mediated inflammatory diseases share common physiopathological mechanisms. IL-17 A and F are found to be overexpressed in both psoriasis and hidradenitis suppurativa, being the effector cytokines responsible of the systemic inflammation in these patients. Bimekizumab has shown the highest response rates in phase 3 clinical trials for both conditions with a favorable safety profile. Due to the recent commercialization of bimekizumab, the evidence of the drug in real-world clinical practice is limited and based on case reports. The objective of this study is to assess the effectiveness and safety of bimekizumab for the treatment of psoriasis and hidradenitis suppurativa in our routine clinical practice.

Materials & Methods: Retrospective follow-up study of 7 patients treated with bimekizumab in the psoriasis and hidradenitis suppurativa consultations of our hospital. Patients were followed as per current clinical practice. Psoriasis and hidradenitis suppurativa activity scores were assessed at baseline, at week 4/8 and at week 24. Improvements in patients' quality of life were evaluated according to Dermatology Life Quality Index (DLQI) scores. Safety information was reported.

Results: We present our single site experience of bimekizumab use for the treatment of moderate to severe psoriasis and hidradenitis suppurativa in routine clinical practice conditions. Our experience includes a total of 7 patients treated with bimekizumab: 4 with moderate to severe plaque psoriasis and 3 with hidradenitis suppurativa. All 7 patients showed rapid and sustained improvements, with good tolerability and no remarkable adverse events. Clinically meaningful improvements were observed in all our patients regardless of the patient profile and location of the lesions. After 24 weeks of treatment, patients referred null or minimal impact in their quality of life.

Conclusion: Bimekizumab effectiveness observed in our patients is similar to that reported in psoriasis and hidradenitis suppurativa pivotal clinical trials, with no new safety alerts. The combination of efficacy, speed, durability, convenient posology, and safety of bimekizumab translates into better outcomes for the patient, which have been reported in clinical trials and are reproduced in our routine clinical practice for both conditions.

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Abstract N°: 1013

Guselkumab, an IL-23p19 Subunit–specific Monoclonal Antibody, is Able to Bind CD64+ Myeloid Cells, Potently Neutralise IL-23 Produced from the Cells, and Mediate Internalisation of IL-23

Kilian Eyerich*[1], James Krueger[2], Robert Bissonnette[3], Dennis Mcgonagle[4], Kacey Sachen[5], Carrie Greving[5], Brian Stoveken[6], Deepa Hammaker[5], Kristin Leppard[6], John Hartman[6], Phuc Bao[5], Eilyn Lacy[6], Indra Sarabia[5], Janise Deming[5], Matthew Duprie[6], Joseph Brown[5], M. Merle Elloso[7], Christopher T. Ritchlin[8], Iain Mcinnes[9], Anne Fourie[5]

[1]Medical Center, University of Freiburg, Freiburg, Germany; Karolinska Institute, Department of Medicine - Division of Dermatology and Venereology, Stockholm, Sweden, [2]The Rockefeller University, Laboratory for Investigative Dermatology, New York, NY, United States, [3]Innovaderm Research Inc, Montréal, Québec, Canada, [4]University of Leeds, Leeds Biomedical Research Centre, Leeds, United Kingdom, [5]Janssen Research & Development, LLC, San Diego, CA, United States, [6]Janssen Research & Development, LLC, Spring House, PA, United States,[7]Janssen Scientific Affairs, LLC, Horsham, PA, United States, [8]University of Rochester, Department of Medicine - Allergy/Immunology and Rheumatology, Rochester, NY, United States, [9]University of Glasgow, College of Medical Veterinary and Life Sciences, Glasgow, United Kingdom

Introduction & Objectives: Monoclonal antibodies (mAbs) targeting the interleukin (IL)-23p19 subunit are effective in treating psoriatic disease, but their molecular attributes may translate to differences in clinical efficacy. Guselkumab (GUS) is a fully human anti-IL-23p19 subunit IgG1 mAb, while risankizumab (RZB) and tildrakizumab (TIL) are humanised anti-IL-23p19 subunit IgG1 mAbs. GUS and TIL have native Fc regions, while RZB has a mutated Fc region. Binding of mAbs to Fcγ receptors (FcγRs) is of particular interest because FcγRI (CD64)+ IL-23–producing myeloid cells are increased in lesional versus nonlesional skin of patients with psoriasis. Here, *in vitro* functional characteristics of the antigen-binding and Fc regions of GUS, RZB, and TIL and the implications of CD64 binding for mAb function and IL-23 neutralisation were explored.

Materials & Methods: IL-23 binding affinity was evaluated using a kinetic exclusion assay. Cellular potency was measured by impact on IL-23–induced STAT3 phosphorylation. Binding of mAbs to FcγRs was assessed in cells transfected with individual FcγRs. Primary human monocytes differentiated into an inflammatory state were utilized in flow cytometry assays to assess mAb binding to CD64 and capture of exogenous recombinant IL-23 or locally produced endogenous IL-23. Cellular activation following mAb binding to CD64 on inflammatory monocytes was assessed using a 41-plex cytokine bead assay. Internalization of IL-23, GUS, and RZB within CD64+ macrophages was assessed using live cell confocal imaging.

Results: GUS and RZB displayed comparable picomolar binding affinity for IL-23 and similar high potency for inhibiting IL-23–induced STAT3 phosphorylation. Relative to GUS and RZB, the binding affinity and potency of TIL were lower. GUS and TIL showed the strongest binding to CD64 versus other FcγRs; RZB had negligible binding to any FcγR. GUS and TIL, but not RZB, showed dose-dependent Fc-mediated binding to CD64 on inflammatory monocytes. CD64-bound GUS showed greatest capture of exogenous recombinant IL-23; both CD64–bound GUS and TIL were also able to capture endogenous IL-23 secreted from the same cells. GUS binding to CD64 on inflammatory monocytes did not induce or enhance cytokine production. GUS, but not RZB, bound to the cell surface of CD64+ macrophages and mediated internalisation of IL-23 to low pH intracellular compartments.

Conclusions: Compared with RZB and TIL,** only GUS simultaneously binds CD64+ myeloid cells via its native Fc region and neutralises IL-23 with high affinity and potency. These data suggest a mechanistic benefit through enrichment of GUS within lesional skin of patients with psoriasis, where CD64+ IL-23–producing myeloid cells are increased, and potent neutralisation of IL-23 at its source and its removal from inflamed tissue via internalisation.

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Abstract N°: 1041

Biomarker response to a novel orally administrated small molecule inhibitor of TNFR1 signalling for plaque psoriasis

Tiago R Matos*[1, 2], Mai Anh Nguyen[3], Ohn A Chow[4], Anna Fishbein[5], Caroline Dreis[3], Hong Zhang[4], Marion Poirel[6], Johann Gassenhuber[3], Michael R Dufault[4], Wagner Frank-Dietrich[7], Laurent Perrin[8], Markus Kohlmann[3], Nassr Nassr[3]

[1]Amsterdam University Medical Centers, University of Amsterdam, Amsterdam, Netherlands,[2]Sanofi, Amsterdam, Netherlands, [3]Sanofi, Frankfurt, Germany, [4]Sanofi, Cambridge, United States, [5]Sanofi, Bridgewater, United States, [6]IT&M Stats, Neuilly-sur-Seine, France, [7]Charité Research Organisation, Berlin, Germany, [8]Sanofi, Montpellier, France

Introduction & Objectives: Soluble Tumor Necrosis Factor Alpha (sTNFα), through TNF receptor 1 (TNFR1) engagement, activates pro-inflammatory and pro-apoptotic pathways that drive the pathogenic effect of TNF in psoriasis. SAR441566, an orally administered small molecule, is a selective inhibitor of TNFR1 signalling, with potential to match the efficacy of anti-TNF injectables. This phase 1 study assessed the safety, clinical response, and biomarker response of SAR441566 in patients with mild-to-moderate plaque psoriasis.

Materials & Methods: In this single-centre, double-blind, placebo-controlled study, 38 patients

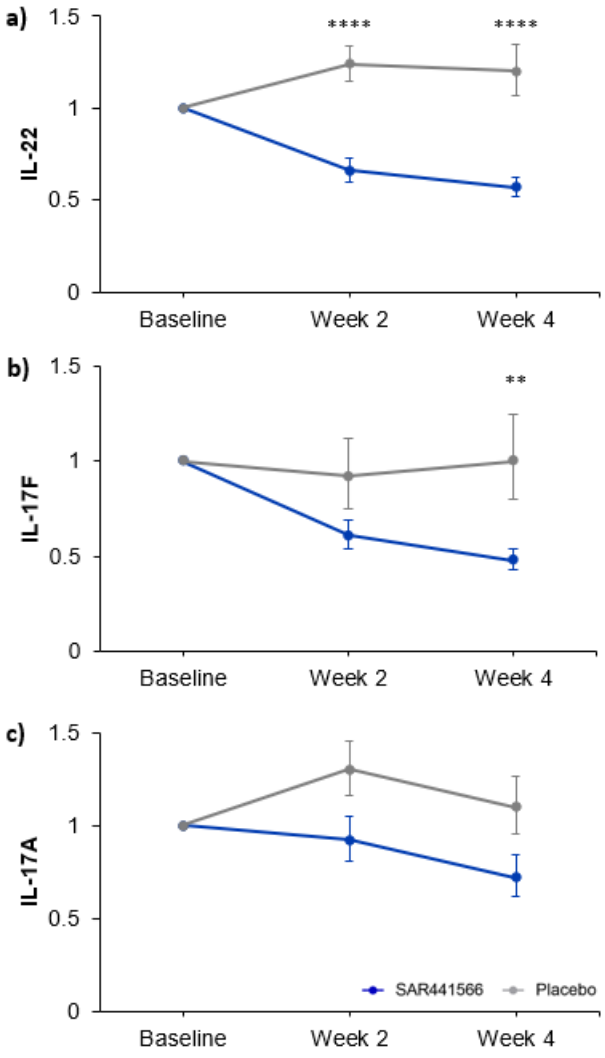
(18–65 years) with mild-to-moderate chronic plaque psoriasis, with Psoriasis Area and Severity Index (PASI) ≤16 and Target Lesion Severity Score (TLSS) ≥4, were enrolled. Patients were randomised 2:1 to receive either, SAR441566 200 mg twice a day or placebo for 4 weeks. To assess the mechanism of action of SAR441566, serum samples collected at baseline, weeks 2 and 4, were evaluated by ultra-sensitive immunoassay platforms, for interleukin (IL)-22, IL-17F, IL-17A, and high sensitivity C-reactive protein (hs-CRP). Statistical analysis was based on geometric mean ratio from baseline values; a two-sample t-test at significance alpha level of 5% was used for calculation of the p-values. Furthermore, psoriatic lesioned skin biopsies were collected to measure transcriptomics profile using RNA sequencing.

Results: SAR441566 compared with placebo achieved rapid and statistically significant reduction in serum IL-22 levels by week 2 (geometric mean ratio from baseline of 0.66 vs 1.24; p=0.0001), which further decreased at week 4 (0.57 vs 1.20; p<0.0001). IL-17F also declined substantially in treated patients compared to placebo, both at week 2 (0.61 vs 0.92; p=0.0795) and week 4 (0.48 vs 1.00; p=0.0025). Furthermore, SAR441566 showed a gradual decline in IL-17A levels from baseline to week 2 (0.92 vs 1.30; p=0.1066) and through week 4 (0.72 vs 1.10; p=0.0859) (**Figure 1**). The difference in hs-CRP level was less prominent between baseline and post-treatment with SAR441566. Still, the decrease in hs-CRP levels was more pronounced in patients treated with SAR441566 vs placebo at week 2 (1.08 vs 1.64, p=0.2477) and week 4 (0.98 vs 1.48, p=0.2589). The diminished cytokine secretion correlated with the statistically significant clinical improvement of PASI in response to SAR441566 treatment at week 2 (17.73% versus 4.12% placebo, p=0.005) and week 4 (35.09% versus 15.71% placebo, p=0.009).

Conclusion: Substantial decline in serum levels of IL-22, IL-17F and IL-17A was observed after selective TNFR1 signalling inhibition with SAR441566 treatment for 4 weeks, while there was a marginal reduction in hs-CRP levels. The decreases in biomarker levels were consistent with the observed clinical improvement noted in patients receiving SAR441566. These results support the mechanistic basis for SAR441566 clinical activity in plaque psoriasis and warrants further clinical development.

Keywords: Biomarkers, psoriasis, TNF

Figure 1: Evolution of serum biomarkers from baseline to week 4: a) IL-22, b) IL-17F and c) IL-17A
**p≤0.01; ****p≤0.0001. Data represent geometric mean ratio from baseline values (×/÷) geometric SEM. A two-sample t-test at significance alpha level of 5% was used for calculation of the p-values. Ratio from baseline values of different cytokines in the SAR441566 group are shown in blue and placebo treated group are shown in grey.
IL, interleukin; SEM, standard error of the mean.



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Abstract N°: 1120

Vaccine Hesitancy Among an Irish Immunosuppressed Dermatology Cohort

Orla Mcfeely*[1], Anne-Marie Tobin[1]

[1]Tallaght University Hospital, Dermatology, Ireland

Introduction & Objectives:

Adult patients diagnosed with chronic inflammatory skin disease are at a higher risk of vaccine-preventable diseases. This is due to the condition and the nature of associated immunomodulatory treatment. Regular dermatology clinic reviews may lead to greater awareness of the importance of vaccination in this cohort. Our aim was to assess the likelihood of patients with chronic inflammatory skin disease to seek the flu, pneumococcal and COVID-19 vaccines following the COVID-19 pandemic.**

Materials & Methods:

An anonymous questionnaire was distributed to the first 100 dermatology patients prescribed immunotherapeutics reviewed in clinic from August to November 2022. Baseline demographics including sex and age were collected as well as underlying diagnosis, smoking status, history of previous COVID-19 infection requiring hospitalisation and compliance with mask-wearing in public settings. Patients rated the likelihood of seeking the COVID-19, flu, and pneumococcal vaccine on a 10-point likert scale, with 1 being not at all likely and 10 being very likely.

Results: Fifty-one (51%) respondents were women. The underlying diagnoses included were psoriasis (74%), hidradenitis suppurativa (16%), and atopic dermatitis (10%). The most common form of immunosuppression prescribed was Adalimumab (31%) and Ustekinumab (31%) followed by Methotrexate (23%). No patient had been hospitalised secondary to COVID-19 infection. Sixty-eight respondents described themselves as very likely (likert scale: 8, 9 or 10) to seek the flu vaccine, sixty-five respondents described themselves as very likely to seek the pneumococcal vaccine and seventy respondents described themselves as very likely to seek the COVID-19 vaccine following the COVID-19 pandemic. Eleven of the 36 patients surveyed between the age of forty-one to fifty-five described themselves as indifferent or unlikely to seek (likert scale: 5, 4, 3, 2, 1) the COVID-19 vaccine.

Conclusion: Overall, vaccination-seeking behaviours were lower than anticipated in this immunosuppressed cohort, with a little over two-thirds of patients describing themselves as very likely to seek each of the flu, pneumococcal, and COVID-19 vaccination. Reasons for vaccine hesitancy were beyond the scope of this study. Regular assessment of vaccine status in dermatology clinics may help to decrease vaccine-preventable illnesses in this cohort. We feel that vaccine hesitancy among the high-risk group of immunosuppressed Dermatology patients is an issue that should be highlighted and addressed.

Tan AJ, Streicher JL, Merola JF, Noe MH. Vaccine considerations for adult dermatology patients on immunosuppressive and immunomodulatory therapies: a clinical review. Dermatol Online J. 2021 Sep 9;27(9):10.5070/D327955114. doi: 10.5070/D327955114. PMID: 34755974; PMCID: PMC9020387.

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Abstract N°: 1162

Spesolimab for hidradenitis suppurativa: A proof-of-concept study

Afsaneh Alavi*[1], Errol Prens[2], Alexa B. Kimball[3], James G. Krueger[4], Sutirtha Mukhopadhyay[5], Hui Wang[6], Nathalie B. Ivanoff[5], Ana C. Hernandez Daly[5], Christos C. Zouboulis[7]

[1]Department of Dermatology, Mayo Clinic, Rochester, MN, United States,[2]Department of Dermatology, Erasmus University Medical Center, Rotterdam, Netherlands, [3]Harvard Medical School and Clinical Laboratory for Epidemiology and Applied Research in Skin (CLEARS), Department of Dermatology, Beth Israel Deaconess Medical Center, Boston, MA, United States, [4]Laboratory for Investigative Dermatology, The Rockefeller University, New York, NY, United States, [5]Boehringer Ingelheim International GmbH, Ingelheim am Rhein, Germany, [6]Boehringer Ingelheim Shanghai Pharmaceuticals Co. Ltd, Shanghai, China, [7]Departments of Dermatology, Venereology, Allergology, and Immunology, Staedtisches Klinikum Dessau, Brandenburg Medical School Theodor Fontane, Dessau, Germany

Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic, inflammatory disorder characterized by painful inflammatory nodules (N), abscesses (A) and draining tunnels (dT), primarily affecting intertriginous areas. Interleukin-36 signalling has been notably expressed within HS inflammatory lesions. To address the need for targeted therapies, this Phase IIa proof-of-clinical-concept (PoCC) study (NCT04762277) explored the effect of spesolimab, an anti-interleukin-36 receptor monoclonal antibody, in patients with moderate-to-severe HS.

Materials & Methods:

The study included adult patients with HS involving ≥2 distinct body areas; a total A and N (AN) count ≥5; a total dT count ≤20; who were biologic-naïve or had previously failed tumour necrosis factor-α inhibitor treatment for HS; and had an inadequate response to oral antibiotics for HS in the past year. Patients (N=52) were randomized (2:1) to receive spesolimab or placebo (1200 mg intravenous dosing once weekly for three weeks [loading dose], followed by 1200 mg subcutaneous dosing at Weeks 4, 6, 8, 10 and 12). This was an exploratory study; therefore, no formal statistical tests were performed. Of patients who completed the study, 45 were enrolled in an ongoing open-label extension (OLE) study (NCT04876391) with spesolimab. For each study, endpoints included change from baseline at Weeks 12 and 24 in total A, N and dT (ANdT) counts, and adverse events (AEs). For the OLE study, Week 12 corresponded to Week 24 of spesolimab treatment for patients who started in this group in the placebo-controlled PoCC study.

Results:

Mean changes from baseline at Week 12 in dT, A and total ANdT counts were −1.30, −0.53 and −4.87 in the spesolimab arm, and 1.07, 3.07 and −0.86 in the placebo arm, respectively. Mean changes in N count were numerically similar between the spesolimab (−3.00) and placebo (−5.00) arms. Of patients with ≥1 dT at baseline, a numerically greater proportion had a decrease in dT count at Week 12 in the spesolimab (16/24, 66.7%) versus the placebo (5/13, 38.5%) arm. Least squares mean changes from baseline in total AN count at Week 12 were −38.8% and −34.7% in the spesolimab and placebo arms, respectively, which may have been affected by higher baseline AN and N counts in the spesolimab versus placebo arm. In the OLE, patients originally randomized to receive spesolimab (n=30) achieved sustained reductions in dT count and in the International Hidradenitis Suppurativa Severity Score (IHS4) at Week 24. The safety profile of spesolimab was similar to that reported in trials of other diseases; among the 52 patients who were enrolled in the PoCC study, 77.8% and 87.5%

of patients reported ≥1 AE in the spesolimab and placebo arms, respectively. No patients receiving spesolimab reported serious AEs and no new safety concerns were identified by Week 24. No deaths were reported.

Conclusion:

Our findings show that spesolimab was well tolerated and decreased all HS lesions. These results support the development of spesolimab in HS.

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Abstract N°: 1204

Long-term Efficacy of Guselkumab on Fatigue and Identification of Early Treatment Targets: Post Hoc Analysis Through 2 Years of a Phase 3, Randomized, Double-blind, Placebo-controlled Study in Biologic-naïve Patients With Psoriatic Arthritis

Dafna Gladman[1], Michael Starr[2], Roberto Ranza[3], Ana Maria Bravo Perdomo[4], Marcie Strauss[5], May Shawi[6], Chenglong Han[7], Emmanouil Rampakakis[8, 9], Andrew Östör[10], Philip Mease[11]

[1]Department of Medicine, Center for Prognosis Studies in Rheumatic Diseases, Schroeder Arthritis Institute; Krembil Research Institute; Toronto Western Hospital, Toronto, ON, Canada, [2]Montreal General Hospital, Quebec, Canada, [3]Hospital das Clinicas da Universidade Federal de Uberlândia; Rheumatology Professor in University of Medicine, Minas Gerais, Brazil, [4]Immunology Medical Affairs, Janssen Latin America, Bogotá, Colombia, [5]Consultant for MEDASOURCE, Indianapolis, IN, USA, Indianapolis, IN, United States, [6]Immunology Global Medical Affairs, Janssen Pharmaceutical Companies of Johnson & Johnson, Horsham, PA, United States, [7]Janssen Global Services, LLC, Malvern, PA, United States, [8]Department of Pediatrics, McGill University, Montreal, Canada, [9]JSS Medical Research, Montreal, Canada, [10]Cabrini Medical Centre, Monash University & Emeritus Research, Melbourne, Australia, [11]Swedish Medical Center, Providence St. Joseph Health and University of Washington, Seattle, WA, United States

Introduction & Objectives: IL-23p19-subunit inhibitor, guselkumab (GUS), demonstrated clinically meaningful improvements (CMI) from baseline in fatigue in patients with psoriatic arthritis (PsA). The present study evaluated the long-term effects of GUS on fatigue through 2 years (Y) of DISCOVER-2, a Phase 3, Randomized, Double-blind, Placebo-controlled Study.

Materials & Methods: This post-hoc analysis evaluated GUS-treated PsA patients with baseline Functional Assessment of Chronic Illness Therapy – Fatigue (FACIT-F) ≤43 (N=681); subanalyses evaluated those with ≥3% body surface area psoriasis (PsO) involvement and Investigator's Global Assessment (IGA) score ≥2 at baseline (PsO subset; N=502). Proportions of patients with CMI (≥4 points) in FACIT-F and normative-FACIT-F (>43) between Week (W) 52–W100 were determined (nonresponder imputation). Receiver operating characteristics (ROC) analyses of patients randomized to GUS determined optimal cutoffs at W8 for predicting fatigue improvement at W100

Results: Baseline mean±SD FACIT-F score was 28.3±8.7 (PsA cohort) and 28.1±8.7 (PsO subset). At W52, 67.8% (PsA) and 68.9% (PsO) patients achieved CMI in FACIT-F; response rates were maintained through W100. At W52, 27.5% (PsA) and 26.7% (PsO) patients achieved normative-FACIT-F levels; response rates increased through W100 (28%–36%). Significant FACIT-F improvements occurred in PsA (8.63) and PsO (8.98) patients at W52 (nominal-p<0.001), increasing from W76–W100 (9.56–10.45). ROC optimal cutoff in W8 FACIT-F improvement predicting W100 FACIT-F CMI was ≥2 in PsA patients; the same cutoff for the PsO subset had slightly greater sensitivity and slightly lower specificity. ROC optimal cutoff in W8 actual FACIT-F score predicting W100 normative-FACIT-F was ≥39.5 in both groups (nominal-p<0.0001).

Conclusion: The clinically meaningful improvements in fatigue seen with up to 1Y of GUS in PsA and the PsO subset were enhanced through 2Y. Early targets of FACIT-F achieved with GUS may help guide treatment decisions.

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Abstract N°: 1216

Long term psoriasis control with guselkumab versus secukinumab and ixekizumab among bio-experienced patients: analysis of drug persistence in large claims database

Maryia Zhdanava[1], Timothy Fitzgerald[2], Dominic Pilon[1], Rachel Teneralli[3], Aditi Shah[1], Christopher Holiday[1], Patrick Lefebvre[1], Steven Feldman[4]

[1]Groupe d'analyse, Ltée, Montréal, QC, Canada, [2]Janssen Scientific Affairs, LLC, Titusville, NJ, United States, [3]Janssen Global Services, LLC, Horsham, PA, United States, [4]Wake Forest School of Medicine, NC, United States

Introduction & Objectives: Treatment persistence is an important drug performance metric, reflecting efficacy, safety, accessibility, and patient preference. Little is known about real-world long-term persistence of bio-experienced patients with psoriasis initiated on guselkumab versus interleukin-17A inhibitors. This study described the treatment persistence and probability of treatment switch among bio-experienced patients with psoriasis receiving guselkumab versus secukinumab and ixekizumab.

Materials & Methods: Adults with psoriasis initiated (index date) on guselkumab, secukinumab or ixekizumab between 07/13/2017 to 5/01/2021, with ≥1 claim for a biologic other than guselkumab and the control agent 12 months pre-index, were identified in the IBM® MarketScan® Research Databases. Persistence was defined based on the gaps between days of index treatment supply of over twice the labelled dosing interval (i.e., guselkumab: >120 days, secukinumab/ixekizumab >60 days). Cohorts (guselkumab versus secukinumab, guselkumab versus ixekizumab) were balanced for potential confounders using entropy balancing and persistence was compared using Cox proportional hazard models.

Results: 1,314 and 3,294 patients were identified for pairwise analysis of guselkumab and secukinumab cohorts, and 1,564 and 2,667 patients for pairwise analysis of guselkumab and ixekizumab cohorts, respectively. Median time to index treatment discontinuation in months was 26.2 for guselkumab versus 10.7 for secukinumab, and 25.9 for guselkumab versus 13.0 for ixekizumab. At 12 months, the guselkumab cohort was 2.00 times more persistent versus secukinumab and 1.76 times more persistent versus ixekizumab (all $P<0.001$). At 18 months, the guselkumab cohort was 2.04 times more persistent versus secukinumab and 1.67 times more persistent versus ixekizumab (all $P<0.001$).

Conclusion: Among bio-experienced patients with psoriasis, initiation of guselkumab was associated with the greater persistence compared to secukinumab or ixekizumab in a real-world setting, potentially indicative of better long-term psoriasis control.

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Abstract N°: 1222

Stringent Disease Activity Control at 2 Years Across Psoriatic Arthritis Domains Irrespective of Baseline Characteristics in Patients Treated with Guselkumab: Post-Hoc Analysis of a Phase 3, Randomized, Double-Blind, Placebo-Controlled Study

Christopher T. Ritchlin[1], Philip Mease[2], Wolf-Henning Boehncke[3], John Tesser[4], Soumya Chakravarty[5, 6], Emmanouil Rampakakis[7, 8], May Shawi[9], Joseph F. Merola[10], Iain Mcinnes[11], Atul Deodhar[12]

[1]University of Rochester Medical Center, Rochester, NY, United States,[2]Swedish Medical Center, Providence St Joseph Health and University of Washington, Seattle, WA, United States, [3]Division of Dermatology, Geneva University Hospitals, University of Geneva, Geneva, Switzerland, [4]Arizona Arthritis and Rheumatology Associates, Phoenix, AZ, United States, [5]Janssen Scientific Affairs, LLC, Horsham, PA, United States,[6]Drexel University College of Medicine, Philadelphia, PA, United States, [7]Department of Pediatrics, McGill University, Montreal, Canada,[8]JSS Medical Research, Inc, Montreal, Canada, [9]Immunology Global Medical Affairs, Janssen Pharmaceutical Companies of Johnson & Johnson, Horsham, PA, United States, [10]Brigham and Women's Hospital, Division of Rheumatology and Immunology, Harvard Medical School, Boston, MA, United States, [11]College of Medical Veterinary and Life Sciences, University of Glasgow, Glasgow, United Kingdom, [12]Division of Arthritis and Rheumatic Diseases, Oregon Health & Science University, Portland, OR, United States

Introduction & Objectives: The objective of this post-hoc analysis was to evaluate the efficacy of guselkumab (GUS) in inducing long-term (Week [W]100) stringent disease control in Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA)-recommended domains across patient subgroups defined by varying baseline characteristics.

Materials & Methods: In DISCOVER-2, 739 biologic-naïve adults with active psoriatic arthritis (PsA), ≥5 swollen joint (SJC)/≥5 tender joint (TJC) counts and C-reactive protein (CRP) ≥0.6mg/dL, were randomized (1:1:1) to GUS every 4 weeks (Q4W) (n=245); GUS at W0, W4, Q8W (n=248); or placebo (n=246) with crossover to GUS Q4W at W24. Following outcomes were accessed at W100 in 493 GUS-randomized patients minimal disease activity (MDA), American College of Rheumatology (ACR)50, ACR70, Investigator's Global Assessment (IGA) 0/ Psoriatic Arthritis Disease Activity Score (PASI) 100 (in patients with ≥3% body surface area (BSA) and IGA≥2 at baseline), Psoriatic Arthritis Disease Activity Score (PASDAS) low disease activity, enthesitis and dactylitis resolution (in patients with condition at baseline), Functional Assessment of Chronic Illness Therapy Fatigue (FACIT-F) response (≥4-point improvement), and Health Assessment Questionnaire disability index (HAQ-DI) response (≥0.35-point improvement). Baseline characteristics of interest were: sex, body mass index, SJC, TJC, PsA duration, CRP, %BSA with psoriasis, PASI score, and use of conventional synthetic Disease Modifying Anti-Rheumatic Drugs and methotrexate. Non-responder imputation was used for missing data.

Results: Of the 493, GUS-randomized patients, 442 (90%) were completed treatment through W100. With few exceptions, achievement of response in GRAPPA-recommended domains at W100 was demonstrated across a variety of baseline patient characteristics, without consistent differences in proportion of responders across patient subgroups of adequate sample size or between GUS dosing regimens.

Conclusion: Administration** of** GUS either Q4W or Q8W was associated with sustained achievement of stringent endpoints spanning key GRAPPA-recommended domains through 2 years across a variety of baseline demographic and disease characteristics, further supporting the long-term efficacy of GUS across the full spectrum of PsA domains and diverse PsA populations.

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Abstract N°: 1320

A Randomised, Double-blind, Phase III Study Demonstrating Clinical Similarity of SB17 (Proposed Ustekinumab Biosimilar) to Reference Ustekinumab in Patients with Moderate to Severe Plaque Psoriasis

Steven Feldman*[1], Joanna Narbutt[2], Giampiero Girolomoni[3], Jan Brzezicki[4], Nataliya Reznichenko[5], Maria Zegadlo-Mylik[6], Grazyna Pulka[7], Magdalena Dmowska-Stecewicz[8], Elżbieta Kłujszo[9], Dmytro Rekalov[10], Lidia Rajzer[11], Jiyoon Lee[12], Minkyung Lee[12], Young Hee Rho[12]

[1]Wake Forest University School of Medicine, Winston Salem, United States,[2]Dermoklinika Centrum Medyczne s.c. M. Kierstan, J. Narbutt, A. Lesiak, Łódź, Poland, [3]University of Verona, Verona, Italy, [4]Centrum Kliniczno Badawcze J. Brzezicki, B. Gornikiewicz-Brzezicka Lekarze Spolka Partnerska, Elbląg, Poland, [5]Military Hospital (Military Unit A3309) of Military Medical Clinical Center of Eastern Region, Zaporizhzhia, Ukraine, [6]ETG WARSZAWA, Warsaw, Poland, [7]Centrum Medyczne All-med BADANIA KLINICZNE, Kraków , Poland,[8]ETG Siedlce, Siedlce, Poland, [9]Prywatny Gabinet Dermatologiczny Elżbieta Kłujszo, Kielce, Poland, [10]Medical Center of LLC “Suchasna klinika”, Zaporizhzhia, Ukraine, [11]L.Rajzer Specjalistyczny Gabinet Dermatologiczno-Kosmetyczny, Kraków, Poland, [12]Samsung Bioepis, Co. Ltd, Incheon, Korea, Rep. of South

Introduction & Objectives:

SB17 is a human monoclonal antibody and proposed biosimilar to reference ustekinumab (UST). SB17 and UST had equivalent pharmacokinetics (PK) in healthy subjects in a Phase I Study1. This Phase III study was a randomized double-blind study to compare efficacy, safety, PK, and immunogenicity of SB17 with UST in patients with moderate to severe plaque psoriasis. Results up to 28 weeks are presented in this abstract.

Materials & Methods:

In this randomized, double-blind, Phase 3 multicentre study (NCT04967508), moderate to severe plaque psoriasis patients less than 95 kg were randomized 1:1 to receive either 45 mg of SB17 or UST subcutaneously at Week 0, Week 4, and Week 16. At Week 28, patients initially randomized to UST were re-randomized in a 1:1 ratio to switch to SB17 or maintain UST; patients initially randomized to SB17 continued to receive SB17 every 12 weeks up to Week 40. The primary endpoint was the percent change from baseline in Psoriasis Area Severity Index (PASI) at Week 12. The equivalence between SB17 and UST was declared if the 95% confidence interval (CI) of the Least Squares Means (LSMeans) difference of percent change from baseline in PASI at Week 12 is entirely contained within the pre-defined equivalence margin of [−15%, 15%] for the per protocol set (PPS). The 90% CI of the LSMeans difference was also estimated for the full analysis set (FAS) with a margin of [−10%, 10%]. Other secondary efficacy and safety endpoints were also measured.

Results:

Among 503 subjects included, 249 subjects were randomized to SB17 and 254 subjects to UST. The adjusted difference in LSMeans of percent change from baseline in PASI at Week 12 was −0.6 and the 95% CI of the adjusted treatment difference was [−3.780 to 2.579] for the PPS, which was entirely contained within the pre-defined equivalence margin of [−15%, 15%] (Table 1). For the FAS, the adjusted difference in LSMeans was −0.7 and 90% CI was [−3.343, 1.933], which was also within the pre-defined equivalence margin of [−10%, 10%]. The percent change from baseline in PASI up to Week 28 was comparable between the treatment groups (Figure 1). Physician’s Global Assessment and Dermatology Life Quality Index were also comparable up to Week 28. The proportions of patients with any treatment-emergent adverse events (TEAEs) were comparable between

treatment groups up to Week 28 (SB17: 48.2% and UST: 48.8%) and the incidences of serious adverse events and adverse events of special interest were also comparable between the treatment groups (Table 2). The PK profiles were comparable between SB17 and UST. The overall incidence of anti-drug antibodies up to Week 28 was 13.3% with SB17 and 39.4% with UST.

Conclusion:

This study demonstrated biosimilarity of SB17 to UST through equivalent efficacy and comparable safety and PK up to Week 28.

Reference:

\1. HS Jeong et al. AAD 2023, Poster 41531

Table 1. Primary Efficacy analysis of Percent Change from Baseline in PASI at Week 12 (ANCOVA)

Analysis Set	Treatment	n	LSMeans (SE)	Difference (SB17–UST)		
				LSMeans (SE)	95% CI	90% CI
Per protocol set	SB17	243	85.7 (2.53)	−0.6 (1.62)	[−3.780, 2.579]	[−3.267, 2.066]
	UST	249	86.3 (2.41)			
Full analysis set	SB17	249	85.7 (2.43)	−0.7 (1.60)	[−3.849, 2.439]	[−3.343, 1.933]
	UST	254	86.4 (2.32)			

Percent change from baseline in PASI was adjusted for baseline PASI and region. Equivalence was declared if the 95% CI was contained within [-15%, 15%] for the PPS and the 90% CI was contained within [-10%, 10%] for the FAS. For the FAS, missing values were imputed through multiple imputation.

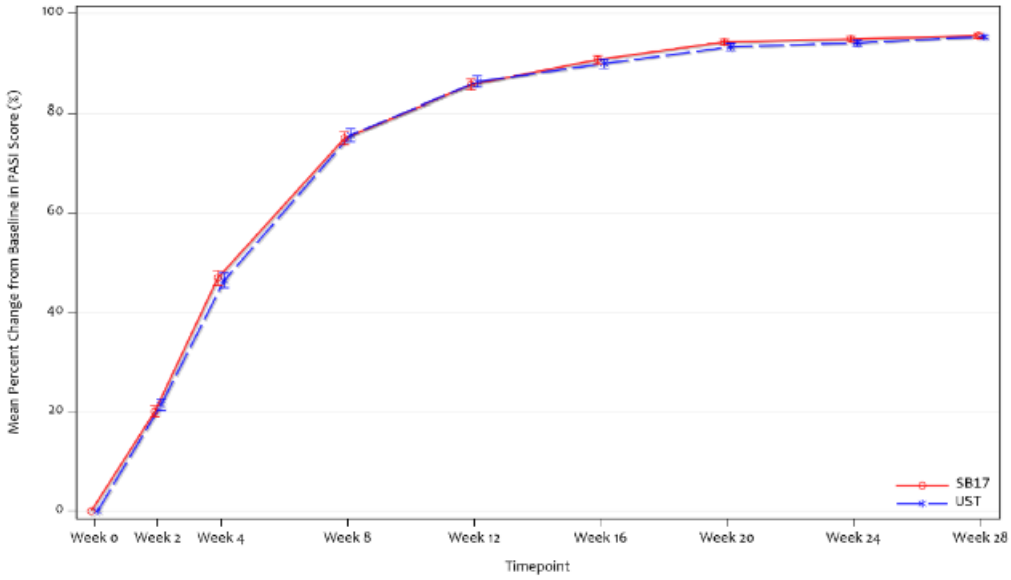

Figure 1. Percent Change from Baseline in PASI up to Week 28 (Full Analysis Set)

Table 2. Summary of Adverse Events Up to Week 28 (Safety Set 1)

Number of Subjects Experiencing	SB17 N=249 n (%)	UST N=254 n (%)	Total N=503 n (%)
TEAE	120 (48.2)	124 (48.8)	244 (48.5)
TEAE severity			
Mild	76 (30.5)	87 (34.3)	163 (32.4)
Moderate	42 (16.9)	36 (14.2)	78 (15.5)
Severe	2 (0.8)	1 (0.4)	3 (0.6)
TEAE causality			
Related	11 (4.4)	12 (4.7)	23 (4.6)
Not related	109 (43.8)	112 (44.1)	221 (43.9)
TEAE of special interest	70 (28.1)	76 (29.9)	146 (29.0)
Systemic hypersensitivity	0 (0.0)	2 (0.8)	2 (0.4)
Infections	70 (28.1)	75 (29.5)	145 (28.8)
Injection site reaction	0 (0.0)	2 (0.8)	2 (0.4)
TEAE leading to discontinuation of IP	0 (0.0)	1 (0.4)	1 (0.2)
Treatment-emergent SAE	6 (2.4)	3 (1.2)	9 (1.8)
TEAE leading to death	0 (0.0)	0 (0.0)	0 (0.0)
COVID-19 related TEAEs	21 (8.4)	24 (9.4)	45 (8.9)

COVID-19: Coronavirus Disease 19; IP: Investigational product

N: Total number of subjects in Safety Set 1

n: Number of subjects with available data within each category

Percentages were based on the number of subjects in the Safety Set 1.

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Abstract N°: 1336

Janus Kinase (JAK) Inhibitors for the Treatment of Hidradenitis Suppurativa: A Review of Literature

Yasamin Kalantari[1], Sara Sadeghi[2], Nima Hajizadeh[2], Ifa Etesami[1]

[1]Tehran University of Medical Sciences, Department of Dermatology,[2]Iran University of Medical Sciences, Department of Dermatology

Introduction & Objectives:

Hidradenitis suppurativa (HS), is a chronic inflammatory skin condition characterized by recurrent painful nodules, abscesses, and draining sinus tracts with substantial psychological and physical burdens.

Recent research indicates an imbalance of cytokines as a contributing factor to the symptoms of HS, such as Tumor Necrosis Factor-alpha (TNF- α), interferon-gamma (IFN-γ), Interleukin (IL)-17, IL-12, IL-1β, IL-6, IL-23, and IL-36. Numerous of these inflammatory cytokines act through the Janus kinase (JAK)/signal transducer and activator of transcription (STAT) pathway. Hence, inhibition of JAK/STAT pathway might be a promising therapeutic option to halt the inflammation. Considering the increasing use of JAK inhibitors for treatment of HS, the aim of the current review is to address the current use of JAK inhibitors as treatment options for HS, and to mention their efficacy and safety in clinical practice.

Materials & Methods:

The databases used to identify the studies were Web of Science, Embase, Scopus, and PubMed/Medline as well as Google Scholar search motor for studies published until December 18, 2022.

Results:

Five studies (1 case report, 2 ongoing placebo-controlled trials, 2 corhort studies) were included. We found that the largest published cohort study until now included two patient populations (study 1, N=10 patients and study 2, N= 35 patients) that receieved JAK1 inhibitor Povorcitinib (INCB054707) with different doses of 30-90 mg once daily. 43% of the study 1 patients achieved (HS Clinical Response) HiSCR and 43% of patients achieved an abscess and inflammatory nodule (AN) count of 0–2 at week 8. In study 2, 65-88% of patients receiving Povorcitinib vs. 57% of patients receiving placebo achieved HiSCR at week 8 based on a dose-dependent manner. Half of the patients receiving Povorcitinib achieved an AN count of 0–2 at week 8. In both studies 1&2, compared to placebo, improvements in secondary and exploratory endpoints including HiSCR, AN count and patient-reported outcomes were observed.

However, we found two ongoing trials. In one of these studies with 200 participants, exploring three different dose levels of Povorcitinib, the preliminary results show efficacy of this medication. The primary outcome measure, the mean change from Baseline in AN count at Week 16 in the 15, 45, 75 mg were -5.2, -6.9, and -6.3, respectively. In the placebo group, this change was -2.5 (p-value= 0.0277).

Another ongoing phase 2, multicenter, randomized, double-blind study on moderate-to-severe HS patients has been evaluating the safety and efficacy of selective JAK1 inhibitor Upadacitinib. Based on the latest reported results, the percentage of participants achieving HiSCR at week 12 in the Upadacitinib 30 mg group was significantly higher (38.3%) than the placebo group (23.8%) (p-value= 0.018). Some of the adverse events included infections, headache, and acne.

Conclusion:

Our study indicates that JAK inhibitors might be promising medications for the treatment of HS with acceptable safety profiles. Also, we recommend conduction of larger scale clinical trials and RCTs on JAK inhibitors to evaluate long-term safety and efficacy of such medications and also to compare the clinical efficacy of JAK inhibitors with other treatment options of HS such as TNF- α inhibitors in the treatment of patients with HS.

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Abstract N°: 1340

Effect of Guselkumab on Inflammatory Cardiovascular Risk Biomarkers, Efficacy, and Safety in Psoriatic Arthritis Patients with Cardiovascular Risk Factors: Post-hoc Analysis of 2 Phase 3, Randomized, Double-blind, Placebo-Controlled Studies

Arthur Kavanaugh[1], Enrique R. Soriano[2], Jan Dutz[3], Carlo Selmi[4], Jenny Yu[5], Emmanouil Rampakakis[6, 7], May Shawi[8], Ana Maria Bravo Perdomo[9], Frederic Lavie[10], Laura Coates[11]

[1]University of California, Center for Innovative Therapy, Department of Rheumatology, La Jolla, United States, [2]Hospital Italiano de Buenos Aires, Rheumatology, Buenos Aires, Argentina,[3]Vancouver General Hospital, Department of Dermatology and Skin Science and BC Children's Hospital Research Institute, Vancouver, Canada, [4]Humanitas Research Hospital and Humanitas University, Rheumatology and Clinical Immunology, Milan, Italy, [5]Janssen Research & Development, LLC, Immunology, Spring House, United States,[6]McGill University, Department of Pediatrics, Montreal, Canada, [7]JSS Medical Research, Inc, Scientific Affairs, Montreal, Canada,[8]Janssen Pharmaceutical Companies of Johnson & Johnson, Immunology Global Medical Affairs, Horsham, United States, [9]Janssen Latin America, Immunology Medical Affairs, Bogotá, Colombia,[10]Janssen Cilag Global Medical Affairs, Immunology Global Medical Affairs, Issy les Moulineaux, France, [11]University of Oxford, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, Oxford, United Kingdom

Introduction & Objectives:

Psoriatic arthritis (PsA) has been associated with increased risk of cardiovascular disease (CVD), likely due to accelerated atherosclerosis secondary to chronic inflammation. The number of CV risk factors has been shown to correlate with PsA disease activity (DA) This post-hoc analysis evaluates the efficacy, safety and effect of guselkumab (GUS) on inflammatory biomarkers that predict CVD in patients with active PsA and concurrent CV risk factors.

Materials & Methods:

DISCOVER (D)1&2 enrolled adults with active PsA despite standard therapies. D1 patients (31% received 1-2 prior TNF inhibitors [TNFi]), had tender and swollen joint counts (TJC/SJC) each ≥3 and CRP ≥0.3 mg/dL; D2 patients (biologic-naïve) had TJC/SJC each ≥5 and CRP ≥0.6 mg/dL. Patients were randomized 1:1:1 to GUS 100 mg every 4 weeks (Q4W); GUS 100 mg at W0, W4, then Q8W; or placebo (PBO)®GUS 100 mg Q4W at W24. Patients included here had ≥1 listed CV risk factors: obesity; smoking (past/current); or history of hypertension, diabetes mellitus (DM), or hyperlipidemia. Changes in high-sensitivity (hs) CRP and neutrophil–lymphocyte ratio (NLR) were compared between GUS vs PBO with mixed models adjusting for baseline levels. Achievement of endpoints at W24 (missing data imputed as no response) was compared in GUS vs PBO with logistic regression adjusting for baseline levels, prior TNFi use, and baseline DMARD use: American College of Rheumatology response criteria, Investigator's Global Assessment of psoriasis score 0/1, DA Index for PsA low DA (LDA)/remission, PsA DA Score LDA, minimal DA, Psoriasis Area and Severity Index responses, Functional Assessment of Chronic Illness Therapy Fatigue response, Health Assessment Questionnaire Disability Index response, and enthesitis and dactylitis resolution. Incidence of major adverse CV events (MACE; CV death, nonfatal myocardial infarction, or nonfatal stroke) was assessed through W100.

Results:

Of 1120 enrolled patients, 758 had ≥1 CV risk factor (259 Q4W, 252 Q8W, 247 PBO); of these, 448 (59%) were

obese, 420 (55%) had hypertension, 315 (42%) were smokers, 171 (23%) had hyperlipidemia, and 103 (14%) had DM. Through W24, GUS significantly reduced hsCRP and NLR vs PBO (Figure). Response rates at W24 were significantly higher with GUS vs PBO for all assessed endpoints (Table). During the PBO-controlled period, one pt each had a MACE in the PBO (0.9 [95% CI: 0.0-4.9]/100 person-years [PY]) and pooled GUS (0.4; 0.0-2.4)/100 PY groups. In the pooled GUS group, the incidence (95% CI) of MACE was 0.2 (0.0-0.8)/100 PY over 1 year and 0.3 (0.1-1.0)/100 PY over 2 years.

Conclusion:

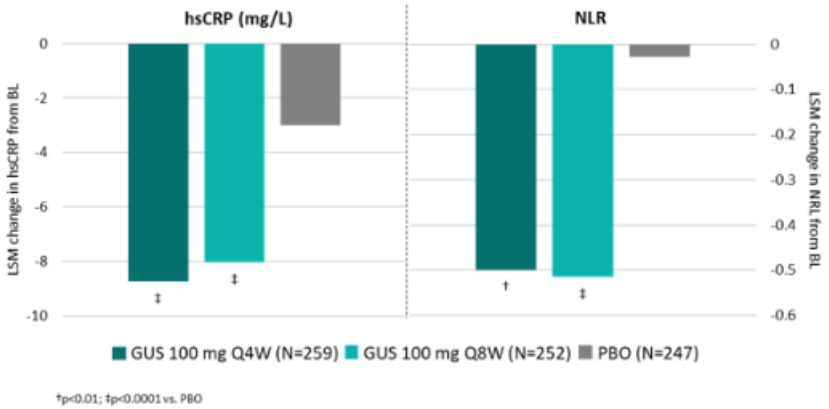
In PsA patients with concurrent CV risk factors, GUS treatment was associated with significant reductions in hsCRP and NLR and significantly higher response rate vs PBO for all PsA domains assessed. MACE incidence was similar to that in the overall D1/D2 population. These findings support the efficacy of GUS on systemic inflammation and CV safety.

Table. Achievement of Efficacy Endpoints at W24 in Patients With Concurrent CV Risk Factors

Parameter	GUS 100 mg Q4W (N=259)	GUS 100 mg Q8W (N=252)	PBO (N=247)
ACR20	62.9%‡	58.3%‡	30.4%
ACR50	32%‡	28.2%‡	11.7%
ACR70	13.5%†	13.1%†	4.0%
DAPSA LDA (Pts with BL DAPSA >14)	39.8%‡	40.3%‡	19.4%
PASI90	60.2%‡	56.3%‡	11.7%
PASI100	47.5%‡	36.5%‡	6.5%
IGA 0/1 (Pts with BL IGA >1)	88.6%‡	85.2%‡	33.7%
Dactylitis resolution (Pts with BL dactylitis)	64.8%†	62.5%*	44.6%
Enthesitis resolution (Pts with BL enthesitis)	43.7%†	48.1%†	29.1%
FACIT-F Response (Pts with BL FACIT-F ≤48)	65.3%‡	59.8%†	44.1%
HAQ-DI Response (Pts with BL HAQ-DI ≥0.35)	56.5%‡	50.4%‡	30.2%
MDA	23.2%‡	20.6%‡	7.3%
PASDAS LDA (Pts with BL PASDAS >3.2)	27.2%‡	29.3%‡	9.4%

*Nominal p<0.05; †p<0.01; ‡p<0.0001 vs PBO.
ACR, American College of Rheumatology; BL, baseline; DAPSA, Disease Activity Index for Psoriatic Arthritis; FACIT-F, Functional Analysis of Chronic Illness Therapy Fatigue; GUS, guselkumab; HAQ-DI, Health Assessment Questionnaire Disability Index; IGA, Investigator's Global Assessment; LDA, Low Disease Activity; MDA, Minimal DA; PASDAS, PsA DA Score; PASI, Psoriasis Area and Severity Index; PBO, placebo; Pts, patients; Q4W, every 4 weeks; Q8W, every 8 weeks.

Figure. Least Square Mean (LSM) Changes From BL to W24 in hsCRP and NLR in Pts with Concurrent CV Risk Factors



†p<0.01; ‡p<0.0001 vs. PBO

BL, baseline; GUS, guselkumab; hsCRP, high-sensitivity C-reactive protein; LSM, least squares mean; NRL, neutrophil-lymphocyte ratio; PBO, placebo; Q4W, every 4 weeks; Q8W, every 8 weeks.

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Abstract N°: 1348

Early Skin and Early Enthesitis Responses in Psoriatic Arthritis Patients Treated with Guselkumab Associate with Long-term Response: Pooled Post Hoc Analyses Through 1 Year of Two Phase 3 Studies

Laura Coates[1], Julio Ramírez[2], Dennis Mcgonagle[3], Sibel Aydin[4], Miriam Zimmermann[5], Francois Nantel[6], May Shawi[7], Emmanouil Rampakakis[8, 9], Peter Nash[10], Philip Mease[11]

[1]Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Botnar Research Centre, Oxford, United Kingdom, [2]Arthritis Unit, Rheumatology Department, Hospital Clinic de Barcelona, Barcelona, Spain, [3]Leeds Biomedical Research Centre, University of Leeds, Leeds, United Kingdom, [4]Department of Rheumatology, University of Ottawa, Ottawa Hospital Research Institute, Ottawa, ON, Canada, [5]Immunology, Janssen Medical Affairs, LLC, Zug, Switzerland,[6]Nantel Medsci Consult, Montreal, Quebec, Canada, [7]Immunology Global Medical Affairs, Janssen Pharmaceutical Companies of Johnson & Johnson, Horsham, PA, United States, [8]McGill University, Department of Pediatrics, Montreal, Canada,[9]JSS Medical Research, Montreal, Canada, [10]Department of Medicine, Griffith University and University of Queensland, Maroochydore, Australia, [11]Swedish Medical Center/Providence St. Joseph Health and University of Washington, Seattle, WA, United States

Introduction & Objectives:

Psoriatic arthritis (PsA) is associated with peripheral joint inflammation, enthesitis, dactylitis, and psoriasis. The objectives of this pooled DISCOVER 1&2 post hoc analysis in 748 guselkumab-treated patients with PsA were to determine: (a) whether early skin±entheseal responses predict responses in key PsA domains, including skin clearance and (b) skin/entheseal responses by 52 weeks in patients without early responses.

Materials & Methods:

Early skin response was defined as Week 16 Psoriasis Area and Severity Index (PASI) score ≤1 or Week 8 skin visual analogue scale (VAS) ≤15mm among patients with baseline PASI score >1 or skin VAS >15mm, respectively, and early entheseal response as Leeds Enthesitis Index score ≤1 at Week 8. Potential responses at Week 24 and Week 52: PASI 100, minimal disease activity (MDA), Disease Activity in PsA (DAPSA) low disease activity (LDA) or remission, DAPSA 50, and enthesitis/dactylitis resolution.

Results:

Early skin response associated with greater ($p<0.02$) odds of PASI 100 (OR=2.5-8.0), MDA (OR=2.1-2.8), DAPSA-LDA (OR=1.5-2.2), DAPSA-remission (OR=2.6-3.1), DAPSA 50 (OR=1.8-2.2) at Week 24. Early entheseal response associated with greater ($p<0.05$) likelihood of MDA (OR=3.4), DAPSA-LDA (OR=2.8), DAPSA 50 (OR=2.8), enthesitis resolution (OR=3.9), dactylitis resolution (OR=1.9) at Week 24. Early skin+entheseal response associated with greater ($p<0.01$) odds of MDA (OR=9.2), DAPSA-LDA (OR=5.2), DAPSA 50 (OR=13.3), and enthesitis resolution (OR=3.8) at Week 24, and greater benefits than those with early response in individual components only. Early guselkumab skin+entheseal responders also had greater ($p<0.04$) odds of MDA/DAPSA-LDA/DAPSA remission/DAPSA50/enthesitis resolution at Week 52 (OR=2.9-6.0). Among patients who did not achieve early individual responses, approximately half did by Week 52.

Conclusion:

Early skin±entheseal responses with guselkumab predicted longer-term clinical response, including complete skin clearance and disease remission. Patients exhibiting early response in both domains were more likely to achieve

later clinical response, highlighting importance of early response in these two domains on trajectory of long-term patient outcomes.

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Abstract N°: 1400

Effect of Guselkumab, Administered Every 8 Weeks in Patients with Active Psoriatic Arthritis Persists Between Consecutive Doses and is Durable: Post Hoc Analysis of DISCOVER-2, a Phase 3, Randomized, Double-blind, Placebo-Controlled Study

Philip J. Mease[1], Xenofon Baraliakos[2], Vinod Chandran[3], Enrique R. Soriano[4], Peter Nash[5], Atul Deodhar[6], Emmanouil Rampakakis[7, 8], Natalie J. Shiff[9, 10], Soumya D. Chakravarty[9, 11], May Shawi[12], Joseph F. Merola[13], Iain B. Mcinnes[14]

[1]Rheumatology Research, Swedish Medical Center, Providence St. Joseph Health and University of Washington, Seattle, United States, [2]Rheumazentrum Ruhrgebiet Ruhr-University Bochum Claudiusstr, Germany, [3]University of Toronto, Department of Medicine, Division of Rheumatology, and Schroeder Arthritis Institute, Ontario, Canada, [4]Rheumatology, Hospital Italiano de Buenos Aires Buenos Aires, Argentina, [5]Rheumatology Research Unit, Griffith University and University of Queensland, Australia, [6]Division of Arthritis and Rheumatic Diseases, Oregon Health & Science University, Portland, OR, United States, [7]Scientific Affairs, JSS Medical Research, Inc, Montreal, Canada, [8]Department of Pediatrics, McGill University, Montreal, Canada, [9]Immunology, Janssen Scientific Affairs, LLC, Horsham, PA, United States, [10]Adjunct, Community Health and Epidemiology, University of Saskatchewan, Saskatoon, Canada, [11]Division of Rheumatology, Drexel University College of Medicine, Philadelphia, PA, United States, [12]Immunology Global Medical Affairs, Janssen Pharmaceutical Companies of Johnson & Johnson, Horsham, PA, United States, [13]Brigham and Women's Hospital, Division of Rheumatology and Immunology, Harvard Medical School, Boston, MA, United States, [14]Institute of Infection, Immunity and Inflammation, College of Medical, Veterinary and Life Sciences, University of Glasgow, Glasgow, United Kingdom

Introduction & Objectives: The efficacy of guselkumab (GUS), a fully human IL-23p19 subunit inhibitor, in patients (pts) with active psoriatic arthritis (PsA) has been previously shown across a variety of PsA domains and baseline (BL) pt characteristics. Given the central role of the IL-23/Th17 pathway in PsA, it has been hypothesized that IL-23 inhibition with GUS may provide persistent and durable clinical responses between doses and over time when administered every 8 weeks (Q8W). Here we assessed at the pt level the persistence of effect of GUS Q8W between doses and its durability of effect over time.

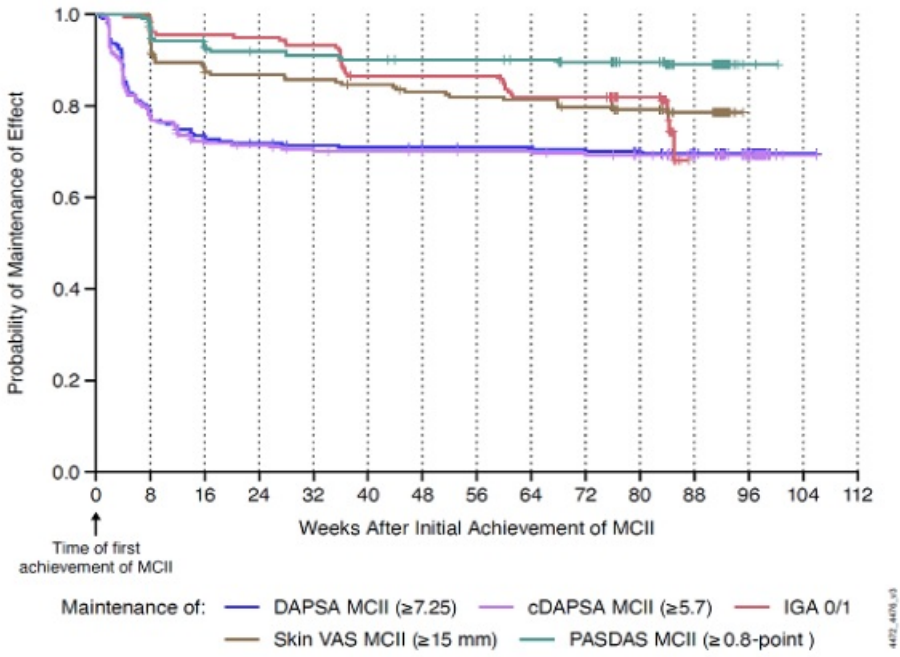
Materials & Methods: DISCOVER-2 enrolled pts with active PsA despite standard therapies. Pts were biologic-naïve, had tender and swollen joint counts (TJC/SJC) each ≥5, and C-reactive protein (CRP) ≥0.6 mg/dL. Pts were randomized 1:1:1 to GUS 100 mg Q4W; GUS 100 mg at W0, W4, then Q8W; or PBO with crossover to GUS 100 mg Q4W at W24. In the current analysis, only GUS Q8W treated pts(N=248) were included. Persistence of effect between consecutive dosing visits was described with the proportion of pts maintaining response (as defined below) in outcomes assessed during dosing visits (Disease Activity Index for PsA [DAPSA], clinical DAPSA [cDAPSA]). Durability of effect was assessed with the Kaplan Meier estimator of the survival function where each pt contributed follow-up from the first time of achievement of clinical response within the 24-week period and the time of loss of response or last available assessment through W100. Definitions of clinical response included achievement of clear/almost clear skin (Investigator's Global Assessment [IGA] 0/1; among pts with BL IGA>1) or minimal clinically important improvements (MCII) in DAPSA (≥7.25), cDAPSA (≥5.7), skin visual analog scale (VAS; ≥15 mm), and PsA Disease Activity Score (PASDAS; ≥0.8).

Results: Between consecutive (Q8W) dosing visits through W52, the proportion of pts maintaining response ranged from 93.3% (DAPSA MCII between W4 and W12) to 99.1% (DAPSA/cDAPSA MCII between W28 and W36), depending on the time interval. Among pts showing clinical response within the first 24 weeks, the estimated

mean (SE) duration of maintenance was 58.6 (2.2) weeks for DAPSA MCII, 52.4 (2.0) weeks for cDAPSA MCII, 75.7 (1.6) weeks for IGA 0/1, 71.7 (1.9) weeks for skin VAS MCII, and 76.7 (1.4) weeks for PASDAS MCII (**Figure**). As estimated probabilities of maintenance of effect at W100 were between 65% (IGA 0/1) and 90% (PASDAS MCII) for all outcomes assessed, median duration of effect could not be calculated.

Conclusion: Treatment with GUS Q8W was associated with long-lasting effects in both joint- and skin-related outcomes, as well as in multi-domain composite outcomes, in individuals with PsA. These results highlight that, in addition to continuous improvement in clinical response rates over time, GUS Q8W provides consistent and highly durable responses between consecutive doses.

Figure. Maintenance of Response Through W100 During Treatment with GUS Q8W



Note: Data shown represent time from first endpoint achievement to first loss of endpoint achievement. Vertical lines indicate dosing.
cDAPSA, Clinical Disease Activity Index for Psoriatic Arthritis; GUS, guselkumab; IGS, Investigator's Global Assessment; MCII, minimal clinically important improvements; PASDAS, Psoriatic Arthritis Disease Activity Score; Q8W, every 8 weeks; VAS, visual analog scale; W, week

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Abstract N°: 1517

Rapid response of dupilumab-associated head and neck dermatitis treated with abrocitinib

Adinia Santosa*[1], Yik Weng Yew[1]

[1]National Skin Centre, Dermatology, Singapore, Singapore

Introduction & Objectives:

Dupilumab has been proven to improve disease-control in moderate-to-severe atopic dermatitis (AD). However, development or exacerbation of head and neck dermatitis (HN-D) in association with Dupilumab has been reported. Severity of HN-D varies, and may persist even with discontinuation of Dupilumab. Herein we report two patients with persistent HND post Dupilumab treatment, with subsequent improvement after JAK-I treatment.

Materials & Methods:

Case 1

A 51-year-old female patient with known AD since childhood has been on cyclosporine, azathioprine and methotrexate with unsatisfactory disease control. She was commenced on Dupilumab with good overall improvement, but developed new, progressive erythematous patches and plaques on her face after 8 weeks. She denied any new contactants or medications. She was diagnosed with HN-D and received mometasone 0.1% cream and protopic 0.1% ointment to the face whilst continued on Dupilumab. HN-D persisted after six months without any improvement. As HN-D persisted for 1 year after initiation of Dupilumab, she was switched to Baricitinib 4mg daily. Initial mild improvement of HN-D was seen within 2 months of commencing Baricitinib, but she worsened thereafter. She was eventually started on Abrocitinib 200mg daily and experienced significant improvement of HND within 4 weeks of treatment. HN-D remains well controlled 6 months while on Abrocitinib.

Case 2

A 41-year-old Chinese male patient with history of childhood eczema has received phototherapy, ciclosporin, methotrexate, azathioprine with limited disease control. He was started on Dupilumab, but developed erythematous patches and plaques on cheeks, forehead, temples and submental regions within three months of treatment. Trial of topical miconazole did not lead to any improvement. Dupilumab was discontinued and he was switched to baricitinib 4mg. While initial Improvement of HN-D was observed within 2 weeks of treatment, he experienced another HN-D flare within 6 weeks. He subsequently was switched to Abrocitinib with good response to treatment within 4 weeks. Overall eczema activity remained stable with significant improvement of HN-D extent after 6 months.

Results:

In both cases, significant HN-D developed after commencement of Dupilumab, and improvement of HN-D in our patients are likely attributed to both discontinuation of dupilumab as well as effect of Abrocitinib.

Conclusion:

Development or exacerbation of HN-D is not yet completely understood, and various hypotheses have been made about the possible underlying pathophysiology. Although previous research has shown that JAK-I can effectively manage head and neck eczema, it is unclear whether such benefits extend to the context of Dupilumab administration. HN-D has been reported to resolve rapidly with JAK-I treatment; the Phase 3 JADE COMPARE

study has revealed that Abrocitinib3 can achieve an Eczema Area and Severity Index (EASI)-90 score in the head and neck region in a median time of approximately 2 months. Given the rapid improvement of HN-D symptoms, Abrocitinib may potentially be a treatment option in patients who experience new or exacerbation of HN-D post Dupilumab. These scenarios raise a point of consideration when choosing between Dupilumab or JAK-inhibitors as AD treatment options. More studies are needed to evaluate the role of JAK-inhibitors in dupilumab associated HN-D.

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Abstract N°: 1560

Rapid response of nail psoriasis to secukinumab in patients with moderate to severe psoriasis after 12 weeks of treatment with a total of 24 weeks of follow-up

Gang Min Go[1], Miri Kim[1]

[1]Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Department of Dermatology, Seoul, Korea, Rep. of South

Introduction & Objectives:

Nail psoriasis is one of the common symptoms of patients with psoriasis. It has been reported in 50~79% of patients with skin psoriasis and 80% of patients with psoriatic arthritis. Nail symptoms beyond cosmetic issues can cause pain and disability in using hands, ultimately decreasing life quality of patient. Based on Th1/17 pathophysiology of psoriasis, anti-IL17 secukinumab has already shown efficacy on psoriasis via several randomized controlled trials focusing on skin improvement. However, few clinical trials have mainly assessed nail psoriasis as a primary end point. In this study, we investigated the efficacy of secukinumab on nail psoriasis.

Materials & Methods:

We prospectively recruited patients newly diagnosed with moderate to severe psoriasis at Catholic university Yeouido St. Mary's Hostpital from January 2021 to January 2022 who were treated with secukinumab. Among these patients, the inclusion criteria for eligibility as study participant were: 1) psoriasis area and severity index (PASI) ≥ 10 and body surface area (BSA) score ≥ 10, 2) ≥ 6 months history of psoriasis, 3) aged more than 18 years, 4) no response to previous systemic immunosuppressant or phototherapy, 5) at least one finger nail psoriasis involvement. Photographs of nails were taken and evaluated at 0, 12, 24 weeks. Nail Psoriasis Severity Index (NAPSI) score was used to asses nail improvement.

Results:

A total of 16 patients consisting of 9 males and 7 females were included. Their mean age was 38.88 ± 10.29 years. They had an average initial NAPSI score of 45.06 ± 20.39 and an average NAPSI score at 12 weeks of 8.94 ± 13.50, showing a significant ($p < 0.05$) decrease of NAPSI score after 12 weeks of secukinumab treatment. After 24 weeks of treatment, NAPSI score was further decreased to 5.12 ± 8.52.

Conclusion:

Secukinumab rapidly improved nail psoriasis after 24 weeks of treatment, suggesting that secukinumab could be used as a potent treatment for nail psoriasis besides skin psoriasis.

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Abstract N°: 1579

Efficacy and safety of litifilimab in cutaneous lupus erythematosus: Phase 2/3 AMETHYST study design

Joseph F. Merola*[1], Victoria P. Werth[2], Ben Chong[3], Filippa Nyberg[4], Eric Morand[5], Ricardo Luis Galimberti[6], Wenbin Zhu[7], Qianyun LI[7], Jennifer Sacks[8], Weihong Yang[7], Michael Schindelar[7], Catherine Barbey[9]

[1]Brigham and Women's Hospital, Harvard Medical School, Dermatology, Boston, United States,[2]University of Pennsylvania and Corporal Michael J. Crescenz VA Medical Center, Dermatology and Medicine, Pennsylvania, United States, [3]University of Texas Southwestern Medical Center, Dermatology, Dallas, United States,[4]Karolinska University Hospital, Dermatology, Stockholm, Sweden, [5]Monash University, School of Clinical Sciences, Melbourne, Australia, [6]Universidad Nacional de Buenos Aires, Dermatology, Buenos Aires, Argentina,[7]Biogen, Cambridge, United States, [8]Biogen, Durham, United States, [9]Biogen, Baar, Switzerland

Introduction & Objectives:

Data from the Phase 2 LILAC study (NCT02847598) of litifilimab (BIIB059), a humanised immunoglobulin G1 (IgG1) monoclonal antibody targeting blood dendritic cell antigen 2 (BDCA2), supported its continued development in cutaneous lupus erythematosus (CLE).1 AMETHYST (NCT05531565), a global, multicentre, randomised, double-blind, placebo-controlled (DBPC), operationally seamless Phase 2/3 study of litifilimab, described here, is ongoing. AMETHYST will further evaluate litifilimab efficacy and safety in participants with active subacute or chronic CLE.

Materials & Methods:

Eligible participants are aged ≥18 years, with a histologically confirmed diagnosis of subacute or chronic CLE (with or without systemic manifestations) that is refractory or intolerant to antimalarials, and with a Cutaneous Lupus Erythematosus Disease Area and Severity Index–Activity (CLASI-A) score ≥10. Enrolled participants will receive subcutaneous litifilimab or placebo once every 4 weeks (Q4W) during Weeks 0–20 and at Week 2; all participants will receive litifilimab Q4W during Weeks 24–48 and placebo or litifilimab (respectively) at Week 26 to maintain blinding (**Figure**). Stable lupus background treatment is permitted. The primary endpoints are the proportion of participants achieving a Cutaneous Lupus Activity–Investigator Global Assessment–Revised (CLA-IGA-R) Erythema score of 0 or 1 at Week 16 (Phase 2 in all participating regions; Phase 3 in USA only), or a ≥70% decrease from baseline in CLASI-A score (CLASI-70 response) at Week 24 (Phase 3 in the rest of the world). Secondary endpoints (including CLASI-50 response, change from baseline in CLASI-Damage score, further CLA-IGA-R analyses, and safety) will evaluate efficacy and safety during the DBPC and extended treatment periods.

Results:

AMETHYST is recruiting; estimated enrolment is 474 participants.

Conclusion:

Data from the AMETHYST study will help further characterise the efficacy and safety of litifilimab in patients with subacute or chronic CLE.

1Werth VP, et al. N Engl J Med 2022;387:321–331

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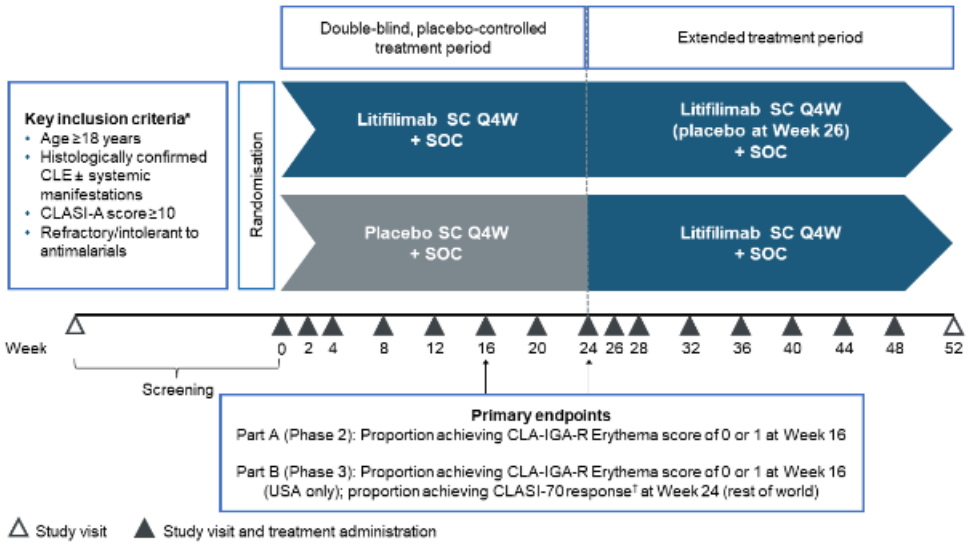
contribution to the design of this study. This study is sponsored by Biogen (Cambridge, MA, USA). Writing and editorial support was provided by Selene Medical Communications (Macclesfield, UK), funded by Biogen. The first presentations of this abstract were at the International Societies for Investigative Dermatology Meeting (ISID), 10–13 May 2023, and the International Conference on Cutaneous Lupus Erythematosus (ICCLE), 9–10 May 2023, in Tokyo, Japan.

Figure. AMETHYST study design



*This is not a comprehensive list; see ClinicalTrials.gov for additional details and criteria; †CLASI-70 response is defined as a ≥70% decrease from baseline in CLASI-A score
CLA-IGA-R, Cutaneous Lupus Activity–Investigator Global Assessment–Revised; CLASI-A, CLE Disease Area and Severity Index–Activity; CLE, cutaneous lupus erythematosus; Q4W, every 4 weeks; SC, subcutaneous; SOC, standard of care

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Abstract N°: 1637

Long-term efficacy and safety of AVT04 and reference product ustekinumab in patients with moderate to severe chronic plaque psoriasis

Steven Feldman*[1], Fausto Berti[2], Paul Duijzings[2], Ruth Ruffieux[2], Hendrik Otto[3], Halimu Haliduola[3], Steffen Leutz[3], Heimo Stroissnig[3]

[1]Wake Forest University School of Medicine, Winston-Salem, United States,[2]Alvotech Swiss AG, Zürich, Switzerland, [3]Alvotech Germany GmbH, Jülich, Germany

Introduction & Objectives:

AVT04 is a proposed biosimilar to reference product (RP) ustekinumab. AVT04 exhibited analytical and pharmacokinetic similarity to RP. The initial findings of this study showed that AVT04 and RP had similar efficacy, safety, tolerability and pharmacokinetics (PK) in patients with moderate to severe plaque psoriasis (PsO) at Week 121,2. Here, we present long-term follow-up results at Week 52.

Materials & Methods:

This multicenter, double blind, active control study enrolled patients with moderate to severe chronic PsO. The patients were initially randomized in a 1:2 ratio to receive either AVT04 or RP at 45 mg (body weight ≤100 kg) or 90 mg (body weight >100 kg) subcutaneously at Weeks 1, 4, 16, 28, and 40. At Week 16, responsive patients (Psoriasis Area and Severity Index (PASI) improvement ≥50%) who had been randomized to AVT04 continued to receive AVT04, while those who had been randomized to RP were re-randomized in a 1:1 ratio to switch to AVT04 or stay on RP. Primary endpoint was the percent improvement in PASI from baseline to Week 12, analyzed using an analysis of covariance (ANCOVA) model. Therapeutic equivalence was demonstrated if the confidence interval (CI) for the adjusted difference in Least Squares means was contained within the prespecified equivalence margins; ±10% for the 90% CI and ±15% for the 95% CI. Efficacy, safety, PK, and immunogenicity were assessed until end of study (EoS) at Week 52 for long-term follow-up.

Results:

Of 581 initially randomized patients (AVT04:RP, 194:387), 575 completed the Week 16 visit, and 544 completed the EoS visit. At Week 12, the percent PASI improvement for AVT04 versus RP was 87.3% versus 86.8%. The CIs were within the pre-defined equivalence limits, indicating that the study met its primary endpoint of therapeutic equivalence. Secondary efficacy analyses of percent PASI improvement (Figure1), static Physician's Global Assessment (sPGA) and Dermatology Life Quality Index (DLQI) responses, PASI50, PASI75, PASI90, and PASI100 were comparable between AVT04 and RP until Week 16 and patients who switched from RP to AVT04 (RP/AVT04) and those who continued on the previous treatments (AVT04/AVT04 and RP/RP) on long-term follow-up until EoS. The findings confirm primary endpoint analysis as well as the long-term persistence of efficacy of both AVT04 and RP while negating the impact of switching. Furthermore, at Week 52, safety, tolerability, and PK profiles were persistent and similar between the switching and non-switching arms. Throughout the study, immunogenicity profiles had no clinically significant impact on efficacy, safety, or PK between the treatment arms.

Conclusion:

This study demonstrates therapeutic equivalence between AVT04 and RP, as well as similar safety and tolerability in the treatment of patients with moderate to severe chronic PsO. PsO is a chronic condition for which ustekinumab is prescribed long-term. This follow-up, showing the long-term persistence of similar efficacy, safety,

and tolerability in patients with PsO, including those who switched from RP to AVT04, complements the initial results.

\1. Berti F *et al*., 2023, Poster ID: 42601, *AAD Annual Meeting*, Mar 17-21, 2023.

\2. Stroissnig H *et al*. 2023, Poster ID: 42913, *AAD Annual Meeting*, Mar 17-21, 2023.

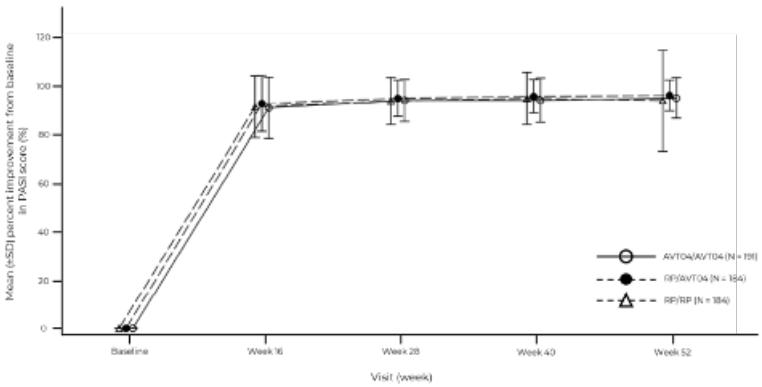

Figure 1: Percent improvement from baseline in PASI by visit up to EOS (Observed Data, Intention-to-Treat Set)

Missing percent improvement in PASI was not imputed. PASI: Psoriasis Area and Severity Index; SD: standard deviation

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Abstract N°: 1679

Impact of Psoriatic Arthritis Manifestations on Perception of Pain Improvement: Pooled Analysis of Two Phase 3, Randomized, Double-blind, Placebo-controlled Studies With Guselkumab

Peter Nash[1, 2], Iain Mcinnes[3], Christopher T. Ritchlin[4], Lai-Shan Tam[5], Enrique R. Soriano[6], Michael Starr[7], Emmanouil Rampakakis[7, 8], Frederic Lavie[9], May Shawi[10], Xenofon Baraliakos[11], Philip Mease[12]

[1]Griffith University, Gold Coast Campus, Southport, Australia, [2]The University of Queensland, Rheumatology Research Unit, Maroochydore, Australia, [3]University of Glasgow, Institute of Infection, Immunity and Inflammation, Glasgow, United Kingdom, [4]University of Rochester School of Medicine and Dentistry, Department of Allergy/Immunology and Rheumatology, Rochester, United States, [5]CUHK Medical Centre, Department of Medicine and Therapeutics, Hong Kong, [6]Hospital Italiano de Buenos Aires, Rheumatology, Buenos Aires, Argentina, [7]MUHC - McGill University Health Centre (Glen Site), Division of Rheumatology, Montréal, Canada, [8]JSS Medical Research, Scientific Affairs, Montréal, Canada, [9]Janssen Cilag, Immunology Global Medical Affairs, Issy-les-Moulineaux, France, [10]Janssen Pharmaceutical Companies of Johnson & Johnson, Immunology Global Medical Affairs, Hopewell Township, United States, [11]Ruhr-Universität Bochum, Rheumazentrum Ruhrgebiet, Bochum, Germany, [12]University of Washington, Rheumatology Research, Seattle, United States

Introduction & Objectives: Pain in psoriatic arthritis (PsA) has multifaceted origins (e.g., peripheral joint inflammation, axial involvement [axPsA], skin lesions, dactylitis, enthesitis, underlying conditions) and can be difficult to treat. Guselkumab (GUS), a fully human IL-23p19 subunit inhibitor, is effective in treating multiple PsA domains and elicited durable improvement in patient (pt)-reported pain (PtP) in the DISCOVER -1 and 2 (D1&2) trials1,2.** Here we assessed associations between improvement in key PsA manifestations and PtP using 1-year D1&2 data.

Materials & Methods: Pts were** D1&2-enrolled adults with active PsA despite standard therapies3,4. They were randomized 1:1:1 to GUS 100 mg every 4 weeks (Q4W); GUS 100 mg at W0, W4, then Q8W; or placebo with crossover to GUS 100 mg Q4W at W24. Treatment groups were pooled (N=1120). Longitudinal associations of improvement in swollen or tender joint counts (SJC [0–66]; TJC [0–68]), Leeds Enthesitis Index (LEI), Dactylitis Severity Score (DSS), Psoriasis Area and Severity Index (PASI), axPsA (N=312), and improvement in overall PtP (0–100 mm) and spinal pain (Bath Ankylosing Spondylitis Disease Activity Index Question 2 in pts with axPsA) were assessed. Longitudinal associations of improvement in these PsA manifestations with ≥30%/50%/70% improvements in PtP (PtP-30/50/70) were assessed.

Results: Mean (SD) baseline (BL) PtP of 61.2 (19.8) indicated substantial burden. Upon adjusting for potential confounders, greater improvement in PASI, SJC, and TJC (mutually adjusted) were each associated with significantly greater improvement in PtP and higher odds of achieving PtP-30 through W52 **(Table)**. PASI reduction was also associated with greater odds of PtP-50, as was TJC improvement for PtP-50/70. In pts with BL enthesitis, LEI, PASI, and TJC improvements were each associated with greater PtP improvement and attaining PtP-30/50/70; SJC reduction was only associated with PtP-30. In pts with BL dactylitis, PASI and TJC reductions were significantly associated with PtP improvement. Overall, axPsA presence did not impact the extent of PtP improvement. In pts with axPsA, significant associations were observed between improvements in spinal pain and TJC and LEI.

Conclusion: Improvements in key PsA manifestations were significantly associated with pain reduction, although to varying extents. TJC reduction had the greatest impact on PtP improvement, likely due to overlap of the

construct measured. Psoriasis improvement had a greater impact on pain relief than SJC improvement, highlighting the sensory burden of skin lesions, while enthesitis improvement showed a significant association with both overall and spinal pain relief. These findings underscore the importance of utilizing treatments effective across manifestations to address recalcitrant PsA symptoms.

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2Nash P. ACR Convergence 2021 (PO1333)

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4Mease PJ. Lancet 2020;395:1126

Table. Adjusted[1] Associations Between Improvements in Key PsA Manifestations and Pain Improvement Through W52

Pt Population	Predictor (Δ)	Δ PtP (β)[2]	Odds Ratio (OR)[3]			Δ Spinal Pain (β)[2,4]
			PtP-30	PtP-50	PtP-70	
All (N=1120)	PASI	0.41‡	1.05†	1.04†	1.04	0.03
	SJC	0.28†	1.03*	1.03	1.06	0.03
	TJC	0.55‡	1.05‡	1.08‡	1.12‡	0.06‡
BL Enthesitis (N=728)	LEI	1.62‡	1.19‡	1.25‡	1.32‡	0.18†
	PASI	0.47‡	1.06†	1.06*	1.06*	0.02
	SJC	0.28†	1.03*	1.03	1.03	0.03
	TJC	0.39‡	1.04‡	1.05‡	1.08‡	0.05‡
BL Dactylitis (N=473)	DSS	-0.04	0.97*	1.01	1.07	0.01
	PASI	0.31†	1.04*	1.05*	1.05	0.02
	SJC	0.19	1.03	1.03	1.02	0.05*
	TJC	0.60‡	1.05‡	1.06‡	1.11‡	0.05†

*p<0.05; †p<0.01; ‡p≤0.0001

[1]Adjusted for BL values, age, gender, body mass index, SF-36 Mental Component Summary score, presence of TJC – SJC ≥7 (central pain sensitization proxy), Functional Assessment of Chronic Illness Therapy-Fatigue score, and treatment group

[2]β correspond to the incremental increase in pain improvement; [3]ORs correspond to the incremental increase in the odds of achieving pain endpoints, for every increase in improvement in key PsA manifestations or in the presence (vs absence) of axPsA. Higher β = greater impact on pain improvement

[4]N=312

BL, baseline; DSS, Dactylitis Severity Score; LEI, Leeds Enthesitis Index; PASI, Psoriasis Area and Severity Index; PtP, patient-reported pain; SJC, swollen joint count; TJC, tender joint count

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Abstract N°: 1732

Effect of high-dose subcutaneous spesolimab on skin manifestations: Results from the pivotal Effisayil 2 trial of flare prevention in generalized pustular psoriasis

Bruce Strober*[1], Matthias Augustin[2], Yayoi Tada[3], Amit Garg[4], Denis Jullien[5], Alice B. Gottlieb[6], Johann E. Gudjonsson[7], Na Hu[8], Patrick Hofmann[9], Christian Thoma[9], Angelo V. Marzano[10, 11]

[1]Department of Dermatology, Yale University School of Medicine, New Haven and Central Connecticut Dermatology, Cromwell, CT, United States, [2]Institute for Health Services Research in Dermatology and Nursing, University Medical Centre Hamburg, Hamburg, Germany, [3]Department of Dermatology, Teikyo University School of Medicine, Tokyo, Japan, [4]Department of Dermatology, Zucker School of Medicine at Hofstra/Northwell, Uniondale, NY, United States, [5]Department of Dermatology, Venereology, Allergology & Aesthetic Dermatology, CHU Lyon, Lyon, France, [6]Icahn School of Medicine at Mount Sinai, New York, NY, United States,[7]Department of Dermatology, University of Michigan Medical School, Ann Arbor, MI, United States, [8]Boehringer Ingelheim (China) Investment Co. Ltd, Shanghai, China, [9]Boehringer Ingelheim International GmbH, Ingelheim am Rhein, Germany, [10]Dermatology Unit, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy,[11]Department of Pathophysiology and Transplantation, University of Milan, Milan, Italy

Introduction & Objectives:

Generalized pustular psoriasis (GPP) is a chronic, rare and potentially life-threatening skin disease, characterized by the extensive development of sterile pustules, and has recently been reclassified within the group of superficial/epidermal neutrophilic diseases. Current treatments are suboptimal in preventing flares, which are a common but unpredictable feature of GPP. Spesolimab, a monoclonal antibody targeted specifically at the interleukin-36 receptor, is effective and approved for the treatment of GPP flares, and has been evaluated for the prevention of flares in the pivotal, randomized, placebo-controlled Effisayil 2 trial (NCT04399837). In this analysis, the effect of high-dose spesolimab or placebo on GPP lesions was assessed using subscores and a total score on the GPP Physician Global Assessment (GPPGA) scale.

Materials & Methods:

Patients aged 12–75 years with a documented history of GPP, who had ≥2 previous flares and a baseline GPPGA total score of 0 or 1 were randomized (1:1:1:1) to receive one of three subcutaneous spesolimab regimens or placebo for 48 weeks. The high-dose spesolimab regimen consisted of a loading dose of 600 mg, followed by a maintenance dose of 300 mg given every 4 weeks. In this descriptive analysis, GPPGA subscores, for erythema, pustules and scaling/crusting, and total score were compared between patients receiving high-dose spesolimab and those receiving placebo at baseline and over the course of treatment. Scores were recorded on the GPPGA scale from 0 (clear) to 4 (severe). Patients were classified as having a flare if they had a pustulation subscore ≥2 plus a total score increase ≥2 since last assessment.

Results:

Patients in this analysis had a mean age of 40 years, and approximately 60% were female. The proportion of patients with a baseline score of 0 for each GPPGA subscore and total score were generally similar between the high-dose spesolimab (n=30) and placebo (n=31) groups; however, a lower proportion of patients in the high-dose spesolimab group had an erythema subscore of 0 than in the placebo group (erythema, 13.3% vs 22.6%; pustules, 66.7% vs 67.7%; scaling/crusting, 23.3% vs 22.6%; total score, 10.0% vs 12.9%). By Week 4, the

proportion of patients with scores of 0 had increased with high-dose spesolimab, but decreased or remained similar with placebo (erythema, 33.3% vs 19.4%; pustules, 80.0% vs 41.9%; scaling/crusting, 30.0% vs 19.4%; total score, 26.7% vs 16.1%). In addition, at Week 4, the proportion of patients with GPP flares was lower with high-dose spesolimab than with placebo (10.0% vs 35.5%). The greater proportion of patients with scores of 0 with high-dose spesolimab vs placebo was maintained at Week 24 (erythema, 36.7% vs 22.6%; pustules, 63.3% vs 45.2%; scaling/crusting, 36.7% vs 19.4%; total score, 33.3% vs 19.4%) and Week 48 (erythema, 36.7% vs 22.6%; pustules, 66.7% vs 45.2%; scaling/crusting, 43.3% vs 25.8%; total score, 36.7% vs 22.6%). There were no new flares after Week 4 in patients who received high-dose spesolimab. In contrast, the proportion of patients with flares increased with placebo (45.2% at Week 24; 51.6% at Week 48).

Conclusion:

Compared with placebo, high-dose subcutaneous spesolimab resulted in a greater proportion of patients with GPP maintaining GPPGA scores of 0, with a lower proportion having flares at Week 4 of treatment, and no new flares after Week 4. The difference between treatments was sustained at Weeks 24 and 48.

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Abstract N°: 1767

Effect of spesolimab on achieving sustained disease remission in patients with generalized pustular psoriasis: Results from the Effisayil 2 study

Kenneth B. Gordon*[1], Mark G. Lebwohl[2], Jonathan Barker[3], Tsen-Fang Tsai[4], Joseph F. Merola[5], Curdin Conrad[6], Min Zheng[7], Na Hu[8], Patrick Hofmann[9], Christian Thoma[9], Kilian Eyerich[10]

[1]Department of Dermatology, Medical College of Wisconsin, Milwaukee, WI, United States,[2]Icahn School of Medicine at Mount Sinai, New York, NY, United States, [3]St John's Institute of Dermatology, Guy's and St Thomas' NHS Foundation Trust, London, United Kingdom, [4]Department of Dermatology, National Taiwan University Hospital and National Taiwan University College of Medicine, Taipei, Taiwan, [5]Department of Dermatology and Department of Medicine, Division of Rheumatology and Immunology, Harvard Medical School, Brigham and Women's Hospital, Boston, MA, United States, [6]Department of Dermatology, Lausanne University Hospital CHUV and University of Lausanne , Lausanne, Switzerland, [7]Department of Dermatology, Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, Zhejiang, China, [8]Boehringer Ingelheim (China) Investment Co. Ltd, Shanghai, China, [9]Boehringer Ingelheim International GmbH, Ingelheim, Germany, [10]Department of Dermatology and Venereology, Medical Center, University of Freiburg, Freiburg im Breisgau, Germany

Introduction & Objectives:

Generalized pustular psoriasis (GPP) is a chronic, rare and potentially life-threatening disease characterised by flares of widespread skin pustulation. In addition to rapid resolution of pustules, sustained long-term skin clearance is a key treatment objective. Intravenous (IV) spesolimab, an anti-interleukin-36 receptor monoclonal antibody, is approved for GPP flare treatment; however, the optimal dosing and long-term efficacy of subcutaneous (SC) spesolimab treatment in patients with GPP has not yet been reported. Effisayil 2 (NCT04399837) was a pivotal, 48-week randomised controlled trial that evaluated the efficacy and safety of SC spesolimab in preventing GPP flares. Here, we report the effect of SC spesolimab on achieving sustained disease remission over 48 weeks in patients with GPP using data from Effisayil 2.

Materials & Methods:

In Effisayil 2, patients with a history of GPP were randomised (1:1:1:1) to receive placebo (n=31) or low- (n=31, 300 mg loading dose [LD]; 150 mg every 12 weeks [q12w]), medium- (n=31, 600 mg LD; 300 mg q12w) or high-dose (n=30, 600 mg LD; 300 mg every 4 weeks [q4w]) SC spesolimab over 48 weeks. In this abstract, data from the placebo and high-dose arms are presented. Sustained remission was defined as a GPP Physician Global Assessment (GPPGA) total score of 0 or 1 at all visits up to Week 48. An additional, more stringent analysis was also performed, in which sustained remission was defined as a GPPGA total score of 0 or 1 and all GPPGA subscores ≤2 at all visits up to Week 48. Sustained pustular clearance was defined as a GPPGA pustulation subscore of 0 at all visits from Week 4 to Week 48. Any use of IV spesolimab or another investigator-prescribed standard of care for GPP worsening was considered a failure of remission. Missing data were imputed by a sequential logistic regression multiple imputation method, and adjusted risk differences were calculated by the Mantel−Haenszel type-weighted average of differences.

Results:

Of 31 patients receiving placebo and 30 receiving high-dose spesolimab, a higher proportion of patients had sustained remission (GPPGA total score 0 or 1) in the high-dose spesolimab arm (63.3%) than the placebo arm

(29.0%). The adjusted risk difference (95% confidence interval [CI]) for high-dose spesolimab versus placebo was 0.35 (0.10–0.59). In the more stringent analysis (GPPGA total score 0 or 1 and all GPPGA subscores ≤2), a higher proportion of patients had sustained remission in the high-dose spesolimab arm (60.4%) than the placebo arm (29.0%). The adjusted risk difference [95% CI] for high-dose spesolimab was 0.32 [0.07–0.56]). Proportionally, more patients receiving high-dose spesolimab (63.6%) achieved sustained pustular clearance over 48 weeks compared with those receiving placebo (25.8%), with an adjusted risk difference (95% CI) of 0.38 (0.14–0.62).

Conclusion:

Relative to the placebo arm, the proportion of patients achieving sustained remission of GPP and sustained pustular clearance was considerably higher in the high-dose spesolimab arm, with almost two thirds of patients achieving clear or almost clear skin over 48 weeks. Overall, high-dose SC spesolimab q4w is effective for the long-term management of GPP skin symptoms.

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Abstract N°: 1784

Multiple advantages of Dupilumab in Netherton syndrome: resolution of trichorrhexis invaginata

Cosimo Castronovi[1], Francesca Ambrogio[1], Caterina Foti[1], Carla Mastrorilli[2]

[1]Department of Precision and Regenerative Medicine and Ionian Area, Unit of Dermatology, University of Bari Aldo Moro, Piazza Giulio Cesare, 70100 - Bari, Italy, [2]Pediatric Department, Pediatric Hospital Giovanni XXIII, Azienda Ospedaliero-Universitaria Policlinic of Bari, Via Amendola 207, 70100 - Bari, Italy

Introduction & Objectives:

Netherton syndrome (NS) is a rare autosomal recessive disease characterized by a triad of manifestations: ichthyosis linearis circumflexa, hair shaft abnormalities and atopic diathesis. NS is a disorder of cornification caused by a mutation of SPINK5 gene encoding the LEKTI-1 protein, a serine protease inhibitor, expressed in the hair follicles and in the granular layer of the epidermis. This mutation leads to a reducted cohesion of the stratum corneum and an increase in defects of the skin barrier. This condition facilitates pathogen penetration, driving Th2 immune responses triggered by kallikrein-related serin proteases. The pathognomonic hair abnormality of NS detected by trichoscopy is bamboo hair (trichorrhexis invaginata) that consists in an invagination of the hair. Atopic manifestations include rhinitis, atopic dermatitis (AD), food allergies associated with laboratory finding of hypereosinophilia and elevated IgE levels. Nowadays, no specific therapies are available for patients affected by NS. Dupilumab is an IL-4 receptor antagonist that blocks the signaling from IL-4 and IL-13, which are essential cytokines in the Th2 pathways. It is approved for the treatment of moderate-to-severe AD in children 6 years or older and recently also in 6 months to 6 years old children. Since NS and AD share many clinical and pathogenetic features, Dupilumab has been demonstrated effective in few case reports, mostly in adults-focused. We report the case of a two-years-old boy affected by NS successfully treated with Dupilumab.

Materials & Methods:

Since Dupilumab was shown to be effective in a few cases of NS and had been demonstrated safe in patients aged 6 months to 5 years, at 2 years of age an off-label treatment with Dupilumab was started at the dose of 6 mg/kg (60 mg) every 2 weeks.

Dupilumab administration has been reported worldwide only in seven children with NS (aged from 6 months to 14 years) and our patient is therefore the second two-year-old patient with NS treated with Dupilumab in literature.

Results:

The administration of Dupilumab rapidly resulted in reduced ichthyosis and erythema of the trunk and EASI (Eczema Area and Severity Index), PGA (Physician Global Assessment), IDQLI (Infants Dermatitis Quality of Life

Index) and NRS (Pruritus Numerical Rating Scale) were improved. After 16 weeks of treatment there was a significant improvement in hair quality: increased strength and average length, reduced amount of broken hair with or without trichorrhexis invaginata also in the eyebrows .

Conclusion:

The remarkable results obtained not only in the reduction of the erythematous plaques, but also in the disappearance of bamboo hair of our 2-year-old patient confirm the importance of the role played by Dupilumab in the treatment of NS, emphasizing the need to take into consideration this therapeutic chance when approaching children.

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Abstract N°: 1785

Case report: Prurigo nodularis successfully treated by Dupilumab

Anna Bessalova*[1], Ksenia Solovyova[1], Olga Zhogoleva[2]

[1]Lahta Clinic, Saint-Petersburg, Russian Federation,[2]Everyday Clinic, Saint-Petersburg, Russian Federation

Introduction & Objectives:

Prurigo nodularis is a rare chronic skin disease, probably related to atopic disordes. It characterized by multiple papules, severe itching, sleep disturbance and related anxiety. The exact cause of prurigo nodularis remains unknow. Therapeutic options are various and often ineffective.

Materials & Methods:

A 58-year old male presented with two years history of persisting itchy lesions on the trunk and extremities, worsening after stressful events, sleep disturbance. The lesions were presented by 3–5-millimetre pink hemispherical papules, located on the back, chest, arms and hips and never on face and neck. According to clinical anamnesis, narrowband UVB therapy was not effective and oral Prednisone 0.5 mg/kg daily used to improved skin rash and pruritis, but was discontinued because of fatigue and blood pressure increasing. Patient reported medical history of mild atopic dermatitis in childhood and mild hay fever during last 10 years. No pathological findings in laboratory or functional tests except dyslipidemia and hypertension were found. Two skin biopsies have been performed: both pathology reports contained description of diffuse spongiosis and mild perivascular inflammatory infiltrate. According to the anamnesis, clinical features and pathology findings the diagnosis of Prurugo nodularis has been performed. Oral Cyclosporine 3.5 mg/kg improved cutaneous status rapidly, but was discontinued due to cardio-risks. Prescribed treatment: emollients, topical mometasone on demand, Dupilumab injections 600 mg then 300mg every 14 days, Atorvastatin 20 mg daily, Valsartan 80 mg daily.

Results:

After first month of Dupilumab treatment patient showed visible improvement of lesions, reported marked decreasing of pruritis, sleep improvement. The strong positive clinical effect lasts for 26 month of treatment till now. No adverse event has been noticed during the observation period.

Conclusion:

Dupilumab could be considered as safe and effective treatment option for patients with prurigo nodularis, with further clinical trials approvement needed.

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Abstract N°: 1858

Extended dosing intervals of ixekizumab for psoriasis: a prospective real-world study

LI-Ran Ye*[1], Xiaoyong Man[1]

[1]Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou,, Dermatology , Hangzhou, China

Introduction & Objectives:

The studies of the effectiveness, safety and optimal usage of ixekizumab to treat Chinese psoriasis patients in the real-world are limited. The purpose of this study was to evaluate the efficacy and safety of ixekizumab in routine clinical practice and to explore an effective and economic way to treat Chinese psoriasis patients by extending dosing intervals of ixekizumab in a real-world study.

Materials & Methods:

In this prospective exploratory open-label single-center study, 39 psoriasis patients treated with ixekizumab from Nov 2019 to Dec 2020 were included. Clinical assessments included the Psoriasis Area and Severity Index (PASI), at least 75% improvement in PASI (PASI 75), and at least 90% in PASI (PASI 90). All the adverse events were monitored throughout the research. Wilcoxon signed-rank test was conducted to assess treatment improvement.

Results:

After extending dosing intervals of IXE, a significant decrease in PASI score was achieved, from 21.7(±15.5) to 2.4(±3.1), in week 4 (n=38, $p<0.001$), and 88.5% of the patients achieved PASI 100 at week 16. The costs decreased from $16,558 to $9,740 per patient by extended-dosing of ixekizumab.

Conclusion:

Extended-interval dosing of ixekizumab in China is an effective, safety and economic way in the treatment of psoriasis.

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Abstract N°: 1921

Ptosis under Check Point Inhibitors

Sophie Becker*[1], Thomas Eigentler[1]

[1]Charité – Universitätsmedizin Berlin, Department of Dermatology, Venereology and Allergology, Berlin, Germany

Introduction: Immune check point inhibitors (CPI) are essential in the therapy of melanoma patients [1]. But with CPI-treatment comes the risk of autoimmune adverse reactions, of which fatal autoimmune reactions occur in the early stages of use [2]. Therefore, observation of signs of neurologic and cardiac adverse events is especially relevant to interfere with potentially life-threatening reactions.

CASE REPORT: A female 73 yo was diagnosed with stage IV melanoma in nov 22. The patient was then administered nivolumab twice in combination with a study drug. Two weeks after the 2nd infusion the patient sensed a slowly progressing ptosis of the left eye without other symptoms. Patient was admitted to local hospital, a cephalic MRI presented no pathologies and auto-AB samples for myasthenia gravis showed up negative. Symptomatic treatment with acetylcholinesterase inhibitors did not attenuate the ptosis. ECG recordings did not show any alterations and the patient was then discharged without further treatment. The patient came back to our cancer center for regular safety blood draw prior to the 3rd nivolumab infusion. Because of suspected myositis, the blood work was extended and showed highly elevated levels of troponin, ck, ck-mb and myoglobin. The patient was thus hospitalized and received high dosage steroid treatment for myocarditis, and CPI-treatment was discontinued.

DISCUSSION: Severe toxicities constitute only a small share of adverse events under CPI-treatment but to prevent fatal reactions it is important to detect them early on [3]. Myositis appears in up to 3% of patients receiving CPI-treatment and is therefore a common neuromuscular adverse event [3]. About 30% of patients affected by myositis show myocarditis, which is associated with the highest fatal rate compared to other categories [2,3].

Syndromes of myasthenia gravis of which ptosis is a key symptom are immune-related in different ways and may reflect CPI-treatment associated neuromuscular affection early on. Ptosis can be unilateral as in our case and appears to be a more often than rare symptom of CPI-associated myositis [4]. Diligent differential diagnosis including muscle biopsy and cephalic MRI allows distinguishing patients with necrotizing myopathy or metastatic impact [4].

Conclusion: CPI-treatment comes with the risk of autoimmune adverse reactions of which myositis presents neuromuscular affections with myocarditis posing a potentially life-threatening reaction. Unilateral ptosis may be an early marker of immune-related myositis and hence myocarditis which prompts diligent diagnostic assessment and therapeutic intervention to prevent fatal outcome.

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Abstract N°: 1984

Association Between Clinical Characteristics and Response to Biologics in Treatment of Psoriasis: A Meta-analysis

Christopher Willy Schwarz*[1, 2], Gustav Hjort[1, 2], Lone Skov[1, 2], Nikolai Loft[1]

[1]Copenhagen University Hospital – Herlev and Gentofte, Department of Dermatology and Allergy, Copenhagen, Denmark, [2]University of Copenhagen, Department of Clinical Medicine, Copenhagen, Denmark

Introduction & Objectives: Biologics are effective treatments for patients with moderate-to-severe psoriasis, but not all patients respond. Obese patients, patients who smoke, and patients previously treated with biologics typically experience poorer response to biologics. Whether other clinical characteristics affect the efficacy of biologics is currently not known. Also, it is not known whether clinical characteristics impact the various biologics differently. Therefore, we conducted a meta-analysis on the association between clinical characteristics and response to biologics in patients with psoriasis.

Materials & Methods: The protocol for this meta-analysis was registered on PROSPERO. The study followed the PRISMA 2020 statement. Using a predefined search string, we systematically searched the databases PubMed, Embase and Web of Science. Studies had to report on clinical characteristics in relation to the efficacy of biologics in patients with psoriasis. The main outcome was a 90% reduction in Psoriasis Area and Severity Index (PASI90) at 6 months. Secondary outcomes were PASI90 at 3 and 12 months, and PASI75 at 3, 6 and 12 months. The effect size was calculated with random-effects models (DerSimonian-Laird) for each clinical characteristic. We only pooled clinical characteristics that were reported in at least three studies and results from observational studies and randomized controlled trials were not pooled.

Results: The systematic search yielded 2,322 studies and after abstract and full-text screening, 42 studies were included in the study. Higher age, higher body mass index (BMI), previous and current smoking, and previous treatment with biologics were all negatively associated with achieving PASI90 at 6 months. Clinical characteristics such as sex, diabetes, hypertension, psoriatic arthritis, and disease duration were not associated with any of the outcomes. There were not enough studies to investigate whether the biologics are affected differently by the clinical characteristics.

Conclusion: This meta-analysis found that increasing age, increasing BMI, smoking, and previous treatment with biologics affect the efficacy of biologics negatively. We were unable to investigate whether the clinical characteristics affect the various biologics differently. Our study highlights the need for more original studies on this topic, which may help inform individual treatment decisions in the future.

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Abstract N°: 1986

Twenty-year follow-up post-IVIg therapy in Autoimmune Diseases

A. Razzaque Ahmed[1], Srini Kaveri[2]

[1]Tufts University School of Medicine, Dermatology , Boston, United States,[2]Sorbonne Université, Université de Paris, Centre de Recherche des Cordeliers, Paris, France

Introduction & Objectives: Intravenous Immunoglobulin (IVIg) has been used to treat several autoimmune blistering diseases. Several studies were published in 2001 and 2002 demonstrating its use and benefit. Studies providing long-term follow in Bullous disease are lacking.

The patients presented in these studies were carefully followed for 20 years, after the last infusion of IVIg. Their clinical outcomes are reported to demonstrate the effect of IVIg on their clinical course, and quality of life.

Materials and Methods: The number of patients were 21 with pemphigus vulgaris, 11 with pemphigus foliaceus, 15 with bullous pemphigoid, 15 with mucous membrane pemphigoid and 13 with epidermolysis bullosa aquisita. The protocol to use IVIg therapy and agreed upon by 38 experts on bullous diseases at an International Consensus Development Conference. (Arch Dermatol 2003; 139: 1051-9). Prior to initiation of therapy, patients signed an agreement (IRB approved) to abide by follow-up requirements. Post IVIg therapy during remission, for first there years, follow-up was every six months. Next three years every nine months and thereafter once a year. Detailed clinical examination and serological studies were done during each visit. A biopsy was done at year three.

Results: All patients remained in clinical, serological and immunopathology remission. No relapses were reported. MMP and EBA patients had no disease progression. No long-term side effects were documented. None of the patients developed a second autoimmune disease, malignancy or a hematologic or immunologic disease. All experience a high quality of life.

Conclusion: IVIg therapy is an effective therapy and safe modality to treat autoimmune bullous disease, using a defined protocol. It produces long-term sustained clinical serological and immunopathologic remissions and a high quality of life.

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Abstract N°: 2014

Efficacy of combination therapy in patients with rosacea

Anna Sokolova[1], Gyulnara Fimochkina*[2]

[1]ShcherbakovaUral Research Institute of Dermatovenerology and Immunopathology, Dermatovenerology , Yekaterinburg, Russian Federation, [2]Ural Research Institute of Dermatovenerology and Immunopathology, Dermatovenerology, Ekaterinburg, Russian Federation

Introduction & Objectives:

Rosacea is a common chronic inflammatory disease that manifests itself with recurrent redness, diffuse erythema, telangiectasia, papules or pustules predominantly on the nose, chin, cheeks and forehead. Most treatments are aimed at reducing inflammation with concomitant reduction of inflammatory and localized erythema. However, persistence of diffuse vascular erythema remains a therapeutic problem in patients with papulopustular and erythematoteleangiectatic subtype of Rosacea. The aim of the study is to evaluate the effectiveness of combination therapy in patients with Rosacea.

Materials & Methods:

We observed 24 patients aged 18 to 58 years, with an established diagnosis of Rosacea erythematoteleangiectatic and papulopustular subtypes of mild and moderate severity, as well as with their combination. The first group of 12 patients received pulsed dye laser (PDL, with a wavelength of 595 nm) procedures and topical therapy with 15% azelaic acid gel in combination with 1% ivermectin cream. The laser treatment protocol included repeated passes over the treated areas of the face using subpurple settings with a spot size of 7 to 10 mm, a pulse duration of 3, 6, or 10 ms, and an intensity of 6 to 10 J/cm^2. Course was 3 procedures with an interval of 1 month. In the second group, 12 patients received intradermal injections of incobotulinumtoxinA in the area of redness with an interval of 1 cm between injections in combination with topical therapy with azelaic acid and ivermectin creams. IncobotulinumtoxinA was used at a dilution of 1 ml per 100 units of toxin, from 10 to 20 units per cheek in an additional dilution of 1:7. On the first and last visit, erythema was assessed by spectrophotometric intradermal analysis on the SIAscan of hemoglobin distribution, the success of therapy was assessed using the Investigator Global Assessment (IGA) scale. The severity of clinical manifestations in patients was assessed in points according to the dermatological index of the symptom scale (DISS scale) before treatment at baseline and after 16 weeks of therapy - from 0 to 15 points.

Results:

All patients tolerated the treatment satisfactorily; no side effects were registered, which indicates the possibility of combined use of azelaic acid and ivermectin preparations in combination with botulinum therapy with incobotulinumtoxinA and PDL 595nm. According to the data of photofixation, SIAscopy, assessment of the dynamics of the DISS scale, the IGA index, the effectiveness of therapy of all treatment methods in relation to inflammatory and local erythema is shown. In the first group, the DISS index reduction was 70.2% (from 5,7 ± 1,4 to 1,7 ± 1,2, p <0.05), in the second group — 61,4 % (from 5,7 ± 1,7 to 2,2 ± 1,2, p <0.05). After 16 weeks of therapy, 65% of patients achieved an IGA score of 0 - “clear skin”, 35% - “almost clear skin”. Reducing diffuse erythema, telangiectasias is more significant in the first group, narrowing of pores and improving skin quality – in the second group.

Conclusion:

Laser therapy PDL 595 nm is a leader in the treatment of individual telangiectasias and vascular pattern. Topical application of azelaic acid in combination with ivermectin shows a reduction in the inflammatory component in the form of pustules. Combination therapies are effective against both vascular and inflammatory components and represent a promising approach to the treatment of patients with erythematoteleangiectatic and papulopustular subtypes of Rosacea.

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Abstract N°: 2051

Spatial transcriptomic profiling reveals unique temporal features of EMPD across diverse time points

Jiyun Jang*[1, 2], Thuy Nguyen-Phuong[1], Jung-Ho Lee[1], Hyo Jeong Nam[1], Yoon Ji Bang[1], Hyun-Je Kim[1, 3], Jongil Kim[1, 2], Young Bok Lee[4]

[1]Seoul National University, Department of Biomedical Science, Seoul, Korea, Rep. of South,[2]Genomic Medicine Institute, Medical Research Center, Seoul, Korea, Rep. of South, [3]Seoul National University, Department of Microbiology and Immunology, Seoul, Korea, Rep. of South, [4]Catholic University, College of Medicine, Department of Dermatology, Seoul, Korea, Rep. of South

Introduction & Objectives:

Extramammary Paget disease (EMPD) is a rare, slow-growing skin disease that occurs in inguinal and genital skin which is uncertain for its cellular origin. EMPD can be difficult to diagnose early on because its symptoms can resemble common benign dermatologic conditions, which can lead to delayed diagnosis. Recent studies have suggested that EMPD is linked to changes in the expression of various genes and signaling pathways, including genes involved in cell cycle regulation, immune response, and protein metabolism. However, the molecular mechanisms underlying EMPD remain poorly understood. In this study, we aimed to investigate the RNA expression profiles of obtained EMPD tissue.

Materials & Methods:

Skin biopsies were taken from a 63-year-old male with EMPD who had been treated with ingenol mebutate gel for a period of 1 year. Biopsy samples were obtained from EMPD lesions and adjacent inflammation sites at different time points, including baseline (0 months), 4months, 6months, and 12 months after treatment. Tissues were formalin-fixed and paraffin embedded (FFPE) for further analysis. Digital spatial profiling was done with 48 areas of interest (AOI) based on deparaffinized FFPE slides to reveal RNA expression profile throughout the treatment course. Data analysis for DSP was performed using the R software following Nanostring GeoMx pipelines.

Results:

There were significant differences between the overall EMPD and normal tissue groups in terms of principal component analysis (PCA) and differentially expressed genes (DEG). Among them, the expression levels of well-known paget markers were similar to those of normal tissue at 6 months after treatment. Interestingly, histone-related genes were up-regulated at 4 months after treatment. Despite being treated for 1 year, EMPD tissues that progressed to invasive status did not show particularly low or similar paget marker gene expression to normal tissues. Rather, genes related to epithelial-to-mesenchymal transition were up-regulated. In the surrounding inflammatory tissue, mast cell-related genes were relatively more prevalent compared to normal tissues.

Conclusion:

Our study was conducted to demonstrate the characteristics of EMPD over different time periods after ingeol mebutate treatment. EMPD at various time points showed unique gene expressions and the genes associated with these characteristics allowed us to investigate which pathways were activated during drug treatment.

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Abstract N°: 2052

Efficacy and safety of dupilumab in patients with severe chronic hand eczema with inadequate response or intolerance to alitretinoin: a randomized, double-blind, placebo-controlled phase IIb proof-of-concept study

Laura Loman[1], Esmé Kamphuis*[1], Angelique Voorberg[1], Wietske A. Christoffers[2], Marie-Louise Anna Schuttelaar[1]

[1]University Medical Center Groningen, Groningen, Netherlands,[2]Isala Zwolle, Zwolle, Netherlands

Introduction & Objectives: Effective treatment options for patients with severe chronic hand eczema (CHE) are scarce. Alitretinoin is the only systemic treatment option approved for all subtypes of severe CHE. However, alitretinoin is effective in hyperkeratotic HE, but less effective in vesicular HE. Dupilumab is approved for the treatment of moderate-to-severe atopic dermatitis and has shown promising results in observational studies for several subtypes of HE. The aim of this study is to evaluate the efficacy and safety of dupilumab in patients with severe CHE (subtypes recurrent vesicular HE or chronic fissured HE) with an inadequate response/intolerance to alitretinoin, or when alitretinoin is medically inadvisable.

Materials & Methods: In this 16-weeks, randomized, double-blind, placebo-controlled, proof-of-concept phase IIb trial, patients with severe CHE were randomized 2:1 to dupilumab 300mg or placebo subcutaneously every two weeks. The primary end point was the proportion of patients achieving at least 75% improvement on the Hand Eczema Severity Index score (HECSI-75) at week 16. Adverse events (AEs) were monitored during each visit. *

Results: In total, 30 patients were randomized, and 29 patients received the assigned study drug (dupilumab N=20, placebo N=9). At week 16, a greater proportion of patients achieved HECSI-75 in the dupilumab group than in the placebo group (95.0% versus 33.3%) (Figure 1A). HECSI-50 and HECSI-90 were also achieved by a greater proportion of patients in the dupilumab group than the placebo group at week 16 (HECSI-50: 95.0% versus 33.3%; HECSI-90: 70.0% versus 22.2%). The least square (LS)mean (±standard error) percentage change in HECSI from baseline to week 16 was -88.1 ±10.1 [95% confidence interval (CI), -109.6;-68.1] in the dupilumab group and -10.8 ±16.1 [-43.7;22.1] in the placebo group. Response on the Physician Global Assessment at week 16 was achieved by 70.0% in the dupilumab group and 33.3% in the placebo group (Figure 1B). Dupilumab showed greater LSmean percentage change from baseline to week 16 in weekly average peak pruritus Numeric Rating Scale than placebo (-66.5 ±10.7 [95% CI,-88.6;-44.5] versus -25.3 ±17.0 [95% CI, -60.1;9.4]) (Figure 1C). The proportion of patients achieving the minimally important change of ≥22 on the Quality of Life in Hand Eczema Questionnaire at week 16 was 70.6% in the dupilumab group compared to 33.3% in the placebo group (Figure 1D). AEs were similar between both groups and were mostly mild. There were no serious AEs, nor did any of the AEs lead to discontinuation of the study drug.

Conclusion: Dupilumab was efficacious and well tolerated. Larger studies of longer duration are needed to provide more evidence on the efficacy of dupilumab in CHE. Moreover, larger studies could also enable comparisons between CHE subtypes, for example irritant contact dermatitis or atopic HE.

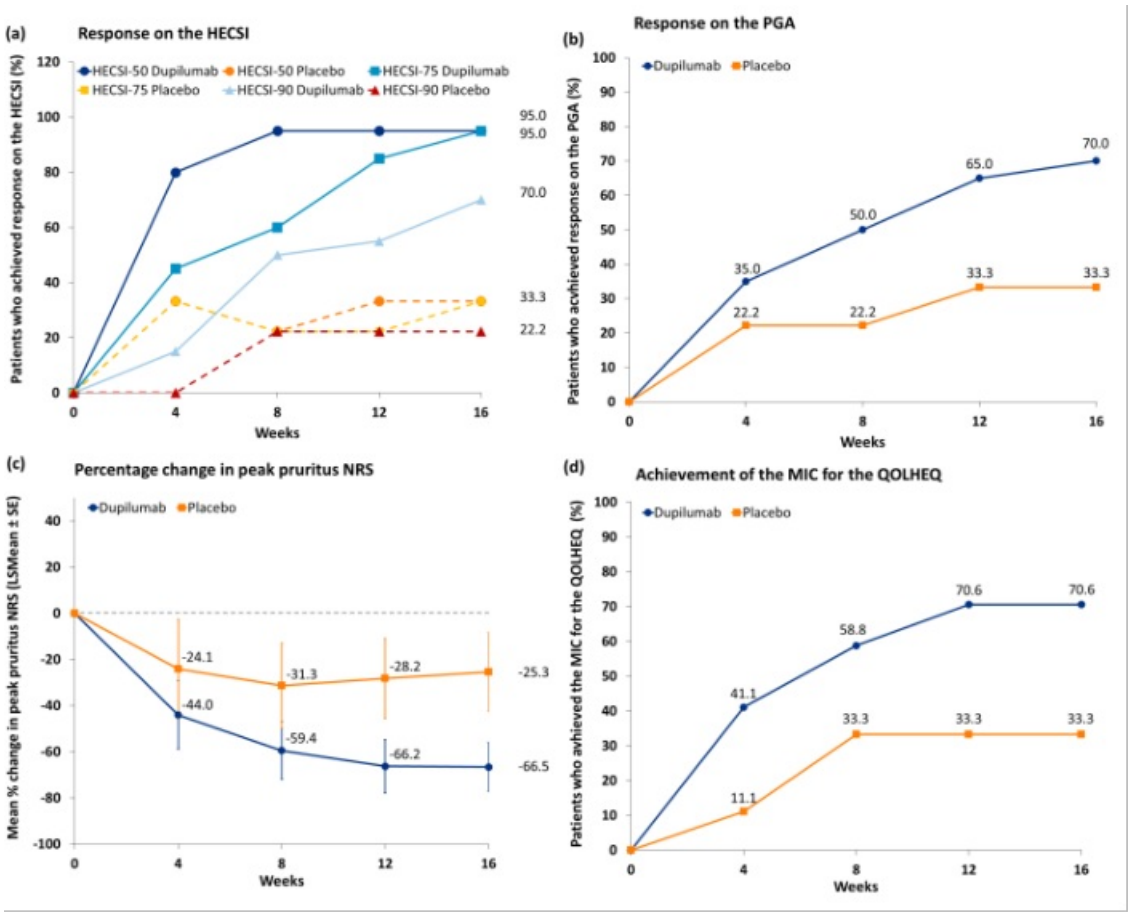

Figure 1. Endpoints from baseline through week 16

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Abstract N°: 2058

multiple benefits of dupilumab in a child affected by netherton syndrome: resolutione of trichorrhexis invaginata

Cosimo Castronovi[1], Carla Mastrorilli[2], Francesca Ambrogio[1]

[1]Department of Precision and Regenerative Medicine and Ionian Area, Unit of Dermatology, University of Bari Aldo Moro, Piazza Giulio Cesare, 70100 - Bari, Italy, [2]Pediatric Department, Pediatric Hospital Giovanni XXIII, Azienda Ospedaliero-Universitaria Policlinic of Bari, Via Amendola 207, 70100 - Bari, Italy

Introduction & Objectives:

Netherton syndrome (NS) is a rare autosomal recessive disease characterized by a triad of manifestations: ichthyosis linearis circumflexa, hair shaft abnormalities and atopic diathesis. NS is a disorder of cornification caused by a mutation of SPINK5 gene encoding the LEKTI-1 protein, a serine protease inhibitor, expressed in the hair follicles and in the granular layer of the epidermis. This mutation leads to a reducted cohesion of the stratum corneum and an increase in defects of the skin barrier. This condition facilitates pathogen penetration, driving Th2 immune responses triggered by kallikrein-related serin proteases. The pathognomonic hair abnormality of NS detected by trichoscopy is bamboo hair (trichorrhexis invaginata) that consists in an invagination of the hair. Atopic manifestations include rhinitis, atopic dermatitis (AD), food allergies associated with laboratory finding of hypereosinophilia and elevated IgE levels. Nowadays, no specific therapies are available for patients affected by NS. Dupilumab is an IL-4 receptor antagonist that blocks the signaling from IL-4 and IL-13, which are essential cytokines in the Th2 pathways. It is approved for the treatment of moderate-to-severe AD in children 6 years or older and recently also in 6 months to 6 years old children. Since NS and AD share many clinical and pathogenetic features, Dupilumab has been demonstrated effective in few case reports, mostly in adults-focused. We report the case of a two-years-old boy affected by NS successfully treated with Dupilumab. The disease arose at birth with erythroderma on the face and trunk. Within the first three months of age a severe form of AD manifested and at 10 months of age trichorrhexis invaginata was detected by trichoscopy.

Materials & Methods:

Since Dupilumab was shown to be effective in a few cases of NS and had been demonstrated safe in patients aged 6 months to 5 years, at 2 years of age an off-label treatment with Dupilumab was started at the dose of 6 mg/kg (60 mg) every 2 weeks.

Dupilumab administration has been reported worldwide only in seven children with NS (aged from 6 months to 14 years) and our patient is therefore the second two-year-old patient with NS treated with Dupilumab in literature.

Results:

The administration of Dupilumab rapidly resulted in reduced ichthyosis and erythema of the trunk and EASI (Eczema Area and Severity Index), PGA (Physician Global Assessment), IDQLI (Infants Dermatitis Quality of Life Index) and NRS (Pruritus Numerical Rating Scale) were improved. After 16 weeks of treatment there was a significant improvement in hair quality: increased strength and average length, reduced amount of broken hair with or without trichorrhexis invaginata also in the eyebrows .

Conclusion:

The remarkable results obtained not only in the reduction of the erythematous plaques, but also in the disappearance of bamboo hair of our 2-year-old patient confirm the importance of the role played by Dupilumab in the treatment of NS, emphasizing the need to take into consideration this therapeutic chance when approaching children.

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Abstract N°: 2061

Real world survivability of IL-17 inhibitors for psoriasis patients; results from a UK Dermatology Department

Eleanor Clarke*[1], Callum Verran[1], Charles Mitchell[1], Mina Raahimi[1]

[1]St. Marys Hospital, United Kingdom

Introduction & Objectives:

The Interleukin-17 (IL-17) pathway has been identified as a key factor in the pathology of psoriasis. In the United Kingdom (UK) IL-17 inhibitors including Secukinumab, Ixekizumab, Brodalumab, (and more recently Bimekizumab), have received NICE approval for use in the treatment of psoriasis over the last decade. A 2022 Cochrane report aimed to compare the different classes of biologics in a psoriatic population but found most trials were conducted over short time periods, focussing primarily on the induction phase of biologic therapy treatment(1). Studies investigating survivability of different IL-17 inhibitors in psoriasis patients have produced varied results. Reviewing patient records in a UK University Hospital, we aim to contribute to the body of evidence surrounding the survivability of IL-17 inhibitors in a real world setting.

Materials & Methods:

We reviewed all cases of patients with chronic plaque psoriasis commenced on one of three IL-17 inhibitors currently utilised in our department, between 2015 and 2022. The IL-17 inhibitors Brodalumab, Secukinumab, and Ixekizumab were included in our study. Patients recieving Bimekizumab treatment were not included due to this medication not being widely used at present.

Hospital electronic medical records were reviewed for details of their disease course whilst patients were prescribed these drugs, including duration of treatment, time to treatment failure and reason for cessation, if relevant.

Results:

In total 101 patients were treated with IL-17 inhibitors (males=54, females=47); this represents 3485 months of patient exposure to IL-17 class biological therapy. 33 patients were biologic naive (BN) and 68 were biologic experienced (BE).

Patients remained on an IL-17 inhibitor for an average of 33.8 months. In this cohort we found a shorter time to cessation (17.3 months) for patients treated with Brodalumab (n=36; m=21 f=15; BN=9, BE=27), and a higher total cessation rate over the review's timeframe (44.4%). Ixekizumab (n=18; m=13 f=5; BN=9 BE=9) and Secukinumab (n=47; m=20 f=27; BN=15, BE=32) were similar in their survivability data, with an average time to cessation of 32.3 and 31.8 months respectively and a cessation rate of 27.8% and 36.2% respectively.

Conclusion:

Reviewing 3485 months of patient exposure to IL-17 inhibitors, a shorter time to treatment cessation and a higher cessation rate in patients treated with Brodalumab was noted, when compared to Ixekinumab and Secukinumab. Limitations identified include relatively low patient numbers, which do not allow detailed statistical analysis.

Further real world data focussing on long term follow up for patients on all types of IL-17 inhibitors are necessary to accurately gauge treatment. We aim to aid the ongoing discourse in this field, and the implications for choosing

effective patient treatments.

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Abstract N°: 2084

Multiple halo nevi with regression of pigmented lesions after Pembrolizumab therapy

Carlos Fabian Figueroa Martin[1], Luis Felipe Godoy Villalón[1], Andrea San José Rodríguez[1], Rosmary Martin Moreno[1], Pablo Almeida Martin[1], Francisco Granados Pacheco[2], Zaida Hernández Hernández[1], Javier Hernández Santana[1]

[1]Department of Dermatology, Complejo Hospitalario Universitario Insular Materno-Infantil, Las Palmas de Gran Canaria, Spain, [2]Department of Pathology, Complejo Hospitalario Universitario Insular Materno-Infantil, Las Palmas de Gran Canaria, Spain

Introduction & Objectives: Immune checkpoint inhibitors (Ipilimumab, Nivolumab and Pembrolizumab) have changed the paradigm in the treatment of melanoma.

Materials & Methods: A 37-year-old man without relevant personal history, though with family history of melanoma and pancreatic cancer, presented with two interscapular blackish painful skin lesions, which appeared 9 months before and were growing rapidly. Physical examination showed two hyperpigmented exophytic tumors (0.7x1 cm and 1x1.5 cm in diameter); a histopathological study showed a superficial spreading melanoma (Breslow index: 4 mm, non-ulcerated, pT3a) in the smaller lesion and a nodular melanoma (Breslow index: 15 mm, ulcerated, pT4b) in the larger one. Extension assessment (brain CT plus PET-CT) yielded negative results; mutation tests were positive for CDKN2A and negative for BRAF; selective biopsy of sentinel lymph nodes was positive in the left axilla (subcapsular 0.4 mm focus; AJCC stage IIIC). One-year Pembrolizumab (2mg/Kg every 21 days) was prescribed. However, two months after starting the treatment, the patient developed multiple halo nevi and showed regression of >50% of already existing melanocytic nevi. Subsequent clinical and radiological control examinations showed normal results throughout the follow-up period.

Results: The use of monoclonal antibodies has revolutionized cancer therapy. However, since they promote T cell (TC) cytotoxicity, they may be associated with a plethora of immuno-mediated adverse effects, including skin adverse reactions. Vitiligo-like lesions show the highest level of evidence for association with all immune checkpoint inhibitors. However, pigmented lesion regression is rather infrequent, with only 18 cases in the literature, including 8 halo nevi cases (3 with Ipilimumab, 3 with Nivolumab and 2 with Pembrolizumab). The underlying molecular mechanisms are not well understood. Observed infiltrations of tumor and vitiligo-like lesions with a same CD8+ TC clone and circulating antibodies against antigens shared by melanoma and melanocytic nevi (e.g., MART-1, gp100, TRP) suggest that an auto-immune regression mechanism is at play. More studies are needed to understand the relationship between this observed phenomenon and the response to immunotherapy in melanoma patients.

Conclusion: We present a case of multiple halo nevi with regression after Pembrolizumab treatment, a rare side effect.

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Abstract N°: 2117

Efficacy, safety, and treatment durability of intravenous immunoglobulin in autoimmune blistering diseases

Nika Kianfar[1], Shayan Dasdar[1], Maryam Daneshpazhouh[1, 1], Zeinab Aryanian[1], Azadeh Goodarzi[2]

[1]Tehran University of medical science (TUMS), Tehran, Iran,[2]Iran University of Medical Science, Tehran, Iran

Introduction & Objectives: Autoimmune bullous diseases (AIBDs) are a group of rare blistering dermatoses of the mucous membrane and/or skin. The efficacy, safety, and treatment durability of intravenous immunoglobulin (IVIg) as an alternative treatment should be explored.

Materials & Methods: To systematically review the available literature regarding treatment outcomes with IVIg in AIBD patients. The predefined search strategy was incorporated into the following database, MEDLINE/PubMed, Embase, Scopus, and Web of Science on 18 July 2022.

Results: Sixty studies were enrolled using Preferred Reporting Items for Systematic Reviews and Meta-analyses guidelines. The use of IVIg alone or combined with rituximab was reported in 500 patients with pemphigus, 82 patients with bullous pemphigoid, 146 patients with mucous membranes pemphigoid, and 19 patients with epidermolysis bullosa acquisita. Disease remission with IVIg therapy and RTX + IVIg combination therapy were recorded as 82.8% and 86.7% in pemphigus, 88.0% and 100% in bullous pemphigoid, and 91.3% and 75.0% in mucous membrane pemphigoid, respectively. In epidermolysis bullosa acquisita, treatment with IVIg led to 78.6% disease remission; no data were available regarding the treatment with RTX + IVIg in this group of patients. Among all the included patients, 37.5% experienced at least one IVIg-related side effect; the most common ones were headaches, fever/chills, and nausea/vomiting. The use of IVIg with or without rituximab had a favorable clinical response in patients with AIBDs.

Conclusion: IVIg has no major influence on the normal immune system, which makes its utilization for patients with AIBDs reasonable.

Table 1** Demographic data, efficacy, and treatment durability of intravenous immunoglobulin in patients with bullous diseases

	Pemphigus	Bullous pemphigoid	Mucous membrane pemphigoid	Epidermolysis bullousa
	IVIg	RTX+IVIg	IVIg	RTX+IVIg
Patients	410	90	70	12
Clinical response, n (%)				
	Yes	290 (90.9%)	61 (100%)	33 (80.5%)
	No	29 (9.1%)	0 (0.0%)	8 (19.5%)
	NM	91	29	29
Time to clinical response, m				
	Mean	1.9	2.6	2.8
	Range	0.3-7.5	0.4-6	2-4
	NM	236	33	52
Clinical remission, n (%)				
	Yes	227 (82.8%)	78 (86.7 %)	22 (88.0%)
	No	47 (17.2%)	12 (13.3%)	3 (12.0%)
	NM	136	0	45
Treatment durability				
	Relapse, n (%)	41 (44.6%)	22 (40.8%)	10 (52.6%)
	Follow-up, m	37.2	67.8	22.7
	NM	312	27	50

IVIg, intravenous immunoglobulin; RTX, rituximab; NM, not mentioned.

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Abstract N°: 2173

Severe Immune checkpoint inhibitor-induced psoriasis treated with secukinumab

Julia Riganti*[1], María Julia Cura[1], Ana Clara Torre[1], Luis Daniel Mazzuoccolo[1]

[1]Hospital Italiano de Buenos Aires, Dermatology, Buenos Aires, Argentina

Introduction & Objectives:

Cutaneous toxicities are among the most common immune-related adverse events (irAE) in patients treated with Immune checkpoint inhibitors (ICI). Psoriasis *de novo* and exacerbation of preexisting psoriasis are frequent and pose a diagnostic and therapeutic challenge.

Materials & Methods:

We report two cases of severe ICI-induced psoriasis treated with secukinumab. Data collection (age, gender, cancer type, treatment and outcome) was performed systematically from patients' medical records.

Results:

We present two patients. A 50-year-old female with a history of psoriasis, advanced gastric adenocarcinoma and hairy cell leukemia (Case 1). A 70-year-old female with metastatic non-small cell lung cancer who had no personal history of psoriasis (Case 2).

Both patients were receiving pembrolizumab. After 3 cycles of ICI, patient 1 presented a severe flare-up of her psoriasis, with progression to a Psoriasis Area and Severity Index (PASI) score of 39. Patient 2 developed cutaneous lesions and symptoms of inflammatory arthritis after 3 cycles of pembrolizumab, pemetrexed and carboplatin; skin biopsy confirmed psoriasis. Given the severity of cutaneous manifestations, severe pruritus and poor response to previous treatments (topical and oral steroids, UVB narrow band) both patients started on secukinumab, an anti-IL-17A inhibitor, at a dose of 300 mg/week. After 4 weeks, both patients experienced psoriasis complete remission.

Patient 2 developed dyspnea and hemoptysis, chest computed tomography (CT) showed cancer progression, most probably due to the 4-month oncology specific treatment interruption secondary to skin toxicity. The patient died one month later.

Conclusion:

Anti-tumor necrosis factor (TNFs), anti-IL23, anti-IL12/23 and anti-IL17 have been used with positive results in few cases of ICI-induced psoriasis. Rapid improvement of symptoms and minor delays in oncologic therapy are the major benefits. Nevertheless, the effect of these immunomodulatory biologics on ICI treatment remains unknown and more studies are needed to determine their safety in cancer patients.

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Abstract N°: 2175

Intralesional Diphtheria-Tetanus-Pertussis Vaccine versus Intralesional Candida Antigen in the Treatment of Multiple Warts: A Randomized-Controlled Trial

Ayman Youssef*[1]

[1]Zagazig University, dermatology , Cairo, Egypt

Introduction & Objectives:

Intralesional antigen immunotherapy employs the ability of the immune system to recognize certain viral, bacterial and fungal antigens that induce a delayed-type hypersensitivity reaction, not only to the antigen but also against the wart virus, which in turn, increases the ability of the immune system to recognize and clear HPV.

Aim of the Work

To evaluate and compare the efficacy and safety of intralesional immunotherapy by diphtheria-tetanus-whole cell pertussis (DTwP) vaccine versus intralesional Candida antigen injection, a well-known effective intralesional immunotherapy, and intralesional saline as a control in the treatment of multiple

cutaneous warts.

Materials & Methods:

This work was designed to evaluate the clinical efficacy and safety of intralesional DTP vaccine versus intralesional *Candida* antigen in the treatment of multiple warts. Our study included 150 adult patients of both sexes who presented with multiple common warts of different sites, sizes and durations. Patients were randomly divided into 3 groups. **Group I** (60 patients) was injected with 0.3 ml of DTwP vaccine into the largest wart.**Group II** (60 patients) was injected with 0.3 ml of 1/100 solution of *Candida antigen*. **In group III** (30 patients), warts were injected with 0.3 ml of saline. In all groups, injections were done without pre-sensitization at 2-week intervals until complete clearance was achieved or for a maximum of five treatment sessions.

Results:

The studied groups demonstrated an overall statistically significant difference regarding the therapeutic response of the distant warts (P = 0.002). The DTP vaccine group demonstrated a higher clearance rate (53.6%) than the Candida antigen group (29.03%), with no statistically significant difference between both (P = 0.159), while the saline group didn't show any response.

There was no significant association between the therapeutic response to DTP vaccine or Candida antigen and the various clinical factors, although that the presence of common warts and warts of large-size (> 1 cm) were significantly associated with no therapeutic response in the saline group (P = 0.03, and <0.001, respectively).

No serious side effects were reported in any patient of the three studied groups. Candida antigen was well-tolerated with fewer side effects than the DTwP vaccine that was associated with flue-like symptoms in almost all patients with high overall statistically significant difference (P = <0.001).

As regards the recurrence rate during the six-month follow-up period after complete response, no statistically significant difference between the DTP and the Candida antigen was found (P= 0.176). No recurrence was observed in the DTP vaccine group (0%) as compared to 2 patients in the Candida antigen group (9.1%).

Conclusion:

Intralesional DTwP vaccine immunotherapy is an effective therapy of acceptable safety and tolerability for multiple cutaneous warts, and can be added to the armamentarium against HPV infections.

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Abstract N°: 2218

Acneiform eruption as a side effect of selumetinib in a patient with neurofibromatosis I

Nika Filipović[1], Mirna Situm[1], Iva Mihatov Štefanović[2], Nika Franceschi[1], Nikola Ferara[1], Dora Madiraca Glasović[1]

[1]Sestre Milosrdnice University Hospital Centre, Dermatology and Venereology, Zagreb, Croatia,[2]Sestre Milosrdnice University Hospital Centre, Pediatrics, Zagreb, Croatia

Introduction & Objectives:

Neurofibromatosis I (NF-1) is a neurocutaneous genetic disorder caused by the mutation of neurofibromin gene that affects bones, soft tissue, skin, and nervous system. Common cutaneous features of NF-1 include café-au-lait macules, axillary or inguinal freckling (Crowe sign), and neurofibromas, benign tumours composed of Schwann cells, fibroblasts, mast cells, and vascular components which can develop at any point along a nerve. Neurofibromas can be classified as cutaneous, subcutaneous, and plexiform (large, bag-like tumours that can involve all layers of skin, muscle, bone, and blood vessels).

There is no cure for neurofibromatosis. Instead, people with neurofibromatosis are followed by a team of specialists to manage symptoms or complications. However, in 2021 selumetinib, a selective inhibitor of the MAPK enzyme, was approved as a treatment of children, two years of age or older, with NF-1. It is approved specifically for children with symptomatic, inoperable plexiform neurofibromas.

Materials & Methods:

Herein we describe a case of a 17-year-old male patient with NF-1 and large plexiform neurofibromas of the neck and mediastinum who is treated with selumetinib. Shortly after the initiation of therapy, the patient developed numerous erythematous papules, pustules and comedones diffusely on the face. He never had acne before. After a dermatologist's examination, systemic therapy with doxycycline was carried out over several weeks, and after the inflammation subsided, a local preparation of a combination of retinoid and benzoyl peroxide was introduced. Prescribed systemic and local therapy led to significant regression of inflammatory changes. Given that the acneiform eruption is an expected side effect of selumetinib and that it is not a life-threatening complication, the therapy was continued due to its favorable effect on neurofibromatosis.

Conclusions:

In this short report we wanted to present one of the side effects of selumetinib, a new biological drug whose wider use is in the beginning. We would like to emphasize that, considering the age of the patient, the appearance of acne is an expected occurrence, but the sudden appearance of a pronounced clinical presentation in a patient who has not had acne before should definitely arouse suspicion of a side effect of the drug. Therefore, physicians participating in the multidisciplinary treatment of neurofibromatosis should be well educated about new drugs on the market and their side effects.

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Abstract N°: 2304

Ixekizumab induces early clinical resolution of pityriasis rosea: a prospective real-world study

LI-Ran Ye[1], Xiaoyong Man[1]

[1]Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou,, Dermatology , Hangzhou, China

Introduction & Objectives:

The studies of the effectiveness and safety of ixekizumab to treat patients with pityriasis rosea in the real-world settings are limited. The purpose of this study was to evaluate the effectiveness and safety of ixekizumab in routine clinical practice.

Materials & Methods:

In this prospective single-center study, clinical data of 12 patients was collected. A telephone questionnaire was used for those who had not been followed up in the last 2 weeks.

Results:

Among them, a total of 2 patients with pityriasis rosea received injection of ixekizumab. Another 10 patients took only anti-viral medication. Skin lesions gradually subsided completely within 2 weeks in ixekizumab group. In the week 16, only 3/10 patients using anti-viral drugs achieved complete remission. No severe adverse events were reported.

Conclusion:

In conclusion, IL17A inhibitors are effective and safe in the treatment of patients with pityriasis rosea.

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Abstract N°: 2328

Janus kinase inhibitors in treatment of lichen planus: a review

Maliheh Amani[1, 2], Ali Motamed-Sanaye[3, 4], Yasaman Khazaee[5], Motahareh Shokrgozar[6], Maryam Alishahi[6]

[1]Department of Dermatology, Faculty of Medicine, Gonabad University of Medical Sciences, Gonabad, Iran, [2]Clinical Research Development Unit of Allameh Bohlool Gonabadi Hospital, Gonabad University of Medical Sciences, Gonabad, Iran, [3]Infectious Diseases research center, student research committee, Faculty of Medicine, Gonabad university of medical sciences, Gonabad, Iran, [4]Clinical Research Development Unit, Bohlool Hospital, Gonabad University of Medical Sciences, Gonabad, Iran, [5]Pediatrics Department, School of Medicine, Gonabad University of Medical Sciences, Gonabad, Iran, [6]Faculty of Medicine, Gonabad University of Medical Sciences, Gonabad, Iran

Introduction & Objectives: Lichen planus (LP) is an auto-inflammatory skin disorder identified by a presence of T-cell lymphocytes at the dermal-epidermal junction. It is hypothesized that the INF–c/CXCL10 axis fulfills a major role in the onset and persistence of chronic inflammation in LP. Since Janus kinases (JAKs) are involved in the transduction of INF–c signals, they may be good targets for LP treatment. Several case reports and case series described the safety and efficacy Janus kinase inhibitors in treatment of lichen planus variants

Materials & Methods: A comprehensive literature search was performed on PubMed and Google Scholar to find relevant articles on use of Janus kinase inhibitors in treatment of lichen planus variants. Thirteen published articles (upadacitinib, 2 articles; tofacitinib,6 articles; baricitinib, 4 articles; and Ruxolitinib,1 article) in the treatment of LP variants were included.

Results: Tofacitinib is a novel pan-JAK inhibitor that acts through inhibition of the phosphorylation of STAT1, STAT3, and STAT5 by IL-6 and prevents the phosphorylation and activation of JAK1 and JAK3. Several studies have showed favorable improvement of nail LP, lichen planopilaris, hypertrophic LP, and erosive LP with tofacitinib. Baricitinib selectively inhibits JAK1 and JAK2 with modest efficacy against tyrosine kinase 2 and significantly less against JAK3. Some case reports showed the safety and efficacy of baricitinib in treating LP variants. Upadacitinib is classified as a specific JAK1 inhibitor which reduced the function of pro-inflammatory interleukins, momentarily boosted lymphocyte counts, and slightly lowered immunoglobulin levels. This JAK inhibitor agent provided good results in two patients with erosive LP. Roxulitinib is a JAK1 and JAK2 inhibitor that its topical form improved cutaneous LP and hypertrophic LP which had not respond other systemic therapies.

Conclusion: Because of the key role of the IFN/CXCL10 pathway in LP pathogenesis, inhibition of the Janus kinase (JAK)-signal transducer and activator of transcription (STAT) pathway is a therapeutic target for LP. The available data evaluating the efficacy and safety of these agents are limited to case reports and case series. Most reports concerned the treatment of cases of erosive, nail, or follicular LP, which had responded poorly to other treatments. We conclude that JAK inhibitors could open a new therapeutic window for LP, with clinical trials warranted to evaluate their efficacy.

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Abstract N°: 2452

Upadacitinib in the Treatment of Hidradenitis Suppurativa: Report of Four Cases

José María Ortiz Salvador*[1], Jorge Magdaleno[1], Jose Luis Sanchez Carazo[1], Amparo Pérez Ferriols[1]

[1]Consortium General University Hospital of Valencia, València, Spain

Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease that often presents therapeutic challenges. Only Adalimumab is approved by FDA and other available treatments have limited efficacy. Upadacitinib, a selective Janus kinase (JAK) inhibitor, is currently being investigated as a potential treatment option.

Materials & Methods:

We report four cases of patients with HS treated with Upadacitinib. We describe their clinical features, previous treatments, and response to Upadacitinib.

Results:

In three out of four cases, treatment with Upadacitinib resulted in a significant clinical improvement. Hi-SCR (Hidradenitis Suppurativa Clinical Response) was achieved in two patients who had failed previous treatment with adalimumab and secukinumab. One patient had to discontinue adalimumab due to drug-induced lupus, which resolved after switching to Upadacitinib. One patient did not respond to Upadacitinib after 12 weeks of treatment.

Conclusion:

Upadacitinib is a promising new treatment option for HS, with a favorable safety profile in clinical trials. Our case series suggests that Upadacitinib may be effective in patients who have failed previous treatment with biologics. While more studies are needed, Upadacitinib may represent a valuable therapeutic option for HS patients who do not respond to other therapies. Further studies are needed to confirm our findings and determine the optimal dosing and treatment duration.

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Abstract N°: 2457

Treatment of Naive Hidradenitis Suppurativa Patients with Secukinumab: Our Center's Experience

José María Ortiz Salvador*[1], Jorge Magdaleno[1], Andres Grau Echevarría[1], Carolina Labrandero-Hoyos[1], Jose Luis Sanchez Carazo[1], Amparo Pérez Ferriols[1]

[1]Consortium General University Hospital of Valencia, València, Spain

Introduction & Objectives:

Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease that often causes significant morbidity and impaired quality of life. Secukinumab, a monoclonal antibody targeting interleukin-17A, has been shown to be effective in treating HS in clinical trials. However, little is known about the effectiveness of secukinumab in patients who have not previously received treatment with adalimumab. In this study, we aimed to evaluate the efficacy of secukinumab in naive HS patients.

Materials & Methods:

We retrospectively reviewed the medical records of 16 naive HS patients who received secukinumab at our center due to the presence of positive antinuclear antibodies (4 cases), latent tuberculosis (7 cases), or other reasons that contraindicated adalimumab (5 cases). The primary outcome was the achievement of the Hidradenitis Suppurativa Clinical Response (HiSCR) at week 12.

Results:

Ten out of the 16 patients (62.5%) achieved HiSCR at week 12. The remaining six patients did not respond to secukinumab. Among the responders, five achieved complete clearance of their lesions. No serious adverse events were reported.

Conclusion:

Our center's experience suggests that secukinumab is an effective treatment option for naive HS patients, with a higher efficacy rate than that reported in clinical trials. Further studies are warranted to confirm these findings and identify predictors of response to secukinumab in this population.

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Abstract N°: 2484

Impact of guselkumab in real life on different quality of life outcomes in patients with moderate to severe psoriasis: CASSIOPEE study

Marie-Aleth Richard[1], Cristina Bulai-Livideanu[2], Anne-Claire Fougerousse[3], Delphine Staumont-Salle[4], Julie Baraut[5], Benjamin Pariente[5], Samira Chaalal[5], Delphine Lassalle[5], Laurent Misery*[6]

[1]La Timone, Marseille, France, [2]Larrey Hospital, Toulouse, France, [3]Bégin Army Instruction Hospital, Saint-Mandé, France, [4]Hospital Center University De Lille, Lille, France, [5]Janssen Cilag, Issy-les-Moulineaux, France, [6]Hospital Center Regional And University Chru, Brest, France

Introduction & Objectives:

Moderate-to-severe psoriasis (PsO) impairs patients' quality of life (QoL). Beyond its physical impact, PsO has social and psychological implications. Guselkumab (GUS) is an anti-IL-23p19 subunit therapeutic monoclonal antibody indicated for the treatment of moderate-to-severe plaque PsO who are candidates for systemic therapies in adults. The objective of the CASSIOPEE study is to assess the impact of GUS on overall QoL of patients in real life practice, particularly in regard to sleep quality, physical activity, sexual QoL and psychological and cognitive function.

Materials & Methods:

CASSIOPEE is a prospective, multicenter non-interventional study where patients were followed for 6 months after initiation of GUS with study visits at M0, M3, and M6. Results of this interim analysis, including data from M0 (156 patients), M3 (141 patients) and M6 (120 patients), are reported. The primary endpoint of the study was change in DLQI score. Other endpoints, evaluated directly by the patient (Patient Reported Outcomes – PRO) or measured by a wearable device, are detailed in Table 1. PsO severity was assessed by PGA and As-PGA (genital PsO) scores.

Results:

Overall, 156 patients were included; most were men (58.3%) with a mean age of 44.7 ± 11.8 years. Mean disease duration was 19.3 ± 13.3 years. PsO severity based on PGA score was mild in 26.9%, moderate in 49.4% and severe in 23.7% of patients; 30.1% had genital disease. Before GUS was initiated, 71.8% of patients had received at least one systemic treatment or phototherapy, and 45.6% had received ≥ 1 biologic therapy.

Mean DLQI score was 12.7 ± 6.5 at M0 and improved by a mean of 9.0 ± 6.6 points at M3 (95% CI: 7.8-10.1) and 10.2 ± 6.3 points at M6 (95% CI: 9-11.4). In total, 46.8% and 61.2% of patients achieved a DLQI score of 0/1 at M3 and M6, respectively. Improvements in DLQI score were 8.8 ± 5.3 (95% CI: 6.5-11.1), 9.0 ± 5.9 (95% CI: 7.3-10.7) and 15.6 ± 5.2 (95% CI: 13.4-17.8) points at M6 among patients with mild, moderate and severe PsO, respectively.

Results for other measures are reported in table 2. From M0 to M6, sexual QoL scores improved by 4.0 (± 6.5) points (95% CI: 2.7 -5.4), fatigue scores improved by 2.6 (± 8.5) points (95% CI: 0.9-4.4), and improvements in pruritus and skin pain symptom scores were 4.3 (± 3.2; 95% CI: 3.6- 4.9) and 3.6 (± 2.8; 95% CI: 3-4.1) points, respectively. Overall, 51.1% of patients had a minimally clinically important difference in fatigue score (≥3 points) at M6. A ≥10% improvement from M0 to M6 in RSS, pain and itching scores was observed for 50.6%, 82.0% and 88.0% of patients, respectively. Other parameters (e.g., anhedonia, cognitive function, alexithymia, sleep, physical activity) were unchanged during follow-up.

Conclusion:

These results confirm the rapid improvement in QoL associated with symptomatic PsO improvement in patients treated with GUS in a real life setting. Improvement in overall QoL was associated with improvements in sexual QoL, fatigue, pruritus and skin pain. The final analysis of data from the CASSIOPEE study will evaluate the impact of GUS on all endpoints.

Keyword: psoriasis, quality of life, real life, treatment, guselkumab, Patient Reported Outcomes

Table 1: quality of life outcomes assessed by the patient during the study (PRO and connected watch)

Outcome	Scale	Score
General QoL	Dermatology Life Quality Index (DLQI)	0-30 *
General health status	EQ-5D-5L	0 – 100*
Sexual QoL	Relationship and Sexuality Scale (RSS)	10-46*
Anhedonia	Snaith Hamilton Pleasure Scale (SHAPS)	0-14**
Cognitive functions	Perceived Deficit Questionnaire (PDQ-5)	0-20*
Alexithymia	Toronto Alexithymia Scale (TAS-20)	20-100*
Fatigue	Functional Assessment of Chronic Illness Therapy – Fatigue Scale (FACIT-F)	0-52*
Pruritus	Numeric Rating Scales – Itching (NRS)	0-10*
Pain	Numeric Rating Scales – Skin Pain (NRS)	0-10*
Sleep quality	Withings® connected watch	0-100**
Sleep duration	Withings® connected watch	Number of hours
Physical activity	Withings® connected watch	Number of steps

**The higher the score, the worse the situation; **The higher the score, the better the situation*

Table 2: description of quality of life outcomes at M0, M3 and M6

	M0 N=156		M3 N=141		M6 N=120	
	n	M (± ET)	n	M (± ET)	n	M (± ET)
General QoL (DLQI)	155	12.7 (± 6.5)	126	3.8 (± 5.2)	103	2.4 (± 4.3)
95%CI		[11.6-13.7]		[2.8-4.7]		[1.6-3.2]
General health status (EQ-5D)	100	0.6 (± 0.3)	115	0.7 (± 0.3)	91	0.7 (± 0.3)
95%CI		[0.5 - 0.6]		[0.6 - 0.8]		[0.6 - 0.8]
Sexual QOL (RSS)	135	27.5 (± 5.6)	115	24.1 (± 5.2)	98	23.6 (± 5.2)
95%CI		[26.5 - 28.4]		[23.2 - 25.1]		[22.6 - 24.6]
Anhedonia (SHAPS)	146	11,6 (± 1,9)	114	11.6 (± 2.7)	94	12.2 (± 2)
95%CI		[11.3 - 11.9]		[11.1 - 12.1]		[11.7 - 12.6]
Cognitive functions (PDQ-5)	153	6,3 (± 4,1)	124	5.3 (± 4.4)	102	5.2 (± 4.4)
95%CI		[5.5 - 6.8]		[4.5 - 6.1]		[4.3 - 6.1]
Alexithymia (TAS-20)	147	51.8 (± 12.4)	127	50.7 (± 12.9)	111	50.5 (± 12.9)
95%CI		[49.7 - 53.8]		[48.5 - 53]		[48.1 - 52.9]
Fatigue (FACIT)	147	18 (± 9.5)	130	16.3 (± 8.9)	113	15.3 (± 9.4)
95%CI		[16.4 - 19.5]		[14.7 - 17.8]		[13.6 - 17.1]
Pain (NRS)	156	4.9 (± 2.7)	124	2.1 (± 2.4)	100	1.7 (± 2.2)
95%CI		[4.5 - 5.4]		[1.6 - 2.5]		[1.2 - 2.1]
Pruritus (NRS)	156	6 (± 2.9)	124	2.6 (± 2.5)	100	2 (± 2.3)
95%CI		[5.6 – 6.5]		[2.1 - 3]		[2.1 - 3]
Sleep Duration (h /night)	150	6.7 (± 3.2)	146	6.2 (± 1.8)	50	6.6 (± 2.1)
95%CI		[6.2 - 7.2]		[5.9 - 6.5]		[6 – 7.2]
Physical activity (step / day)	150	4297 (± 2497)	147	4585 (± 2954)	51	3695 (± 2181)
95%CI		[3894 – 4699]		[4103 - 5066]		[3081 - 4308.3]

95%CI: 95% confidence interval

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Abstract N°: 2489

Effect of subcutaneous spesolimab on the prevention of generalized pustular psoriasis flares over 48 weeks: Subgroup analyses from the Effisayil 2 trial

Richard B. Warren*[1, 2], David A. Burden[3], Siew-Eng Choon[4], Kenneth Gordon[5], Lluis Puig[6], Arash Mostaghimi[7], Georgios Kokolakis[8], Na Hu[9], Patrick Hofmann[10], Christian Thoma[10], Milan Anadkat[11]

[1]Dermatology Centre, Northern Care Alliance NHS Foundation Trust, Manchester, United Kingdom,[2]NIHR Manchester Biomedical Research Centre, Manchester University NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, United Kingdom, [3]School of Infection and Immunity, University of Glasgow, Glasgow, United Kingdom, [4]Department of Dermatology, Hospital Sultanah Aminah, and Clinical School Johor Bahru, Monash University Malaysia, Subang Jaya, Malaysia, [5]Department of Dermatology, Medical College of Wisconsin, Milwaukee, WI, United States, [6]Dermatology Department, Hospital de la Santa Creu i Sant Pau, Barcelona, Spain, [7]Brigham & Women's Hospital, Harvard Medical School, Boston, MA, United States,[8]Psoriasis Research and Treatment Center, Department of Dermatology, Venereology and Allergology, Charité - Universitätsmedizin Berlin, corporate member of Freie Universität Berlin and Humboldt-Universität zu Berlin, Berlin, Germany, [9]Boehringer Ingelheim (China) Investment Co. Ltd, Shanghai, China,[10]Boehringer Ingelheim International GmbH, Ingelheim am Rhein, Germany, [11]Washington University School of Medicine, Division of Dermatology, St Louis, MO, United States

Introduction & Objectives:

Patients with generalized pustular psoriasis (GPP) experience episodic flares of widespread pustular eruption and erythema that can be fatal without effective management. Spesolimab, an anti-interleukin-36 receptor monoclonal antibody, is approved to treat GPP flares. Effisayil 2 (NCT04399837) was a pivotal clinical trial assessing the efficacy and safety of spesolimab for the prevention of GPP flares over 48 weeks. Here we present data from Effisayil 2 on the efficacy of high-dose subcutaneous (SC) spesolimab for the prevention of GPP flares in prespecified subgroups over 48 weeks.

Materials & Methods:

Effisayil 2 was a multicentre, randomised, double-blind, placebo-controlled, Phase IIb, dose-finding study. Patients were randomised 1:1:1:1 to receive placebo, or low- (300 mg loading dose [LD]; 150 mg every 12 weeks [q12w]), medium- (600 mg LD; 300 mg q12w) or high-dose (600 mg LD; 300 mg every 4 weeks) SC spesolimab over 48 weeks. Eligible patients were aged 12–75 years, had a history of GPP as per the European Rare and Severe Psoriasis Expert Network criteria and a Generalized Pustular Psoriasis Physician Global Assessment (GPPGA) score of 0 or 1 (clear or almost clear). The aim of this analysis was to assess the efficacy of high-dose spesolimab versus placebo across prespecified subgroups (including *IL36RN* mutation, comorbid plaque psoriasis [PsV] and body mass index [BMI] status) for the primary endpoint, time to first GPP flare by Week 48 (defined as a ≥2 GPPGA total score increase from baseline and ≥2 GPPGA pustulation score increase from baseline; subsequent use of rescue SC spesolimab also indicated a GPP flare), using a Cox regression analysis stratified by systemic use of GPP medications at randomisation. The key secondary endpoint (proportion of patients with ≥1 GPP flare by Week 48) was analysed using Mantel−Haenszel type-weighted average of differences to calculate adjusted risk differences with 95% confidence intervals (CI) based on the variance estimator introduced by Sato.

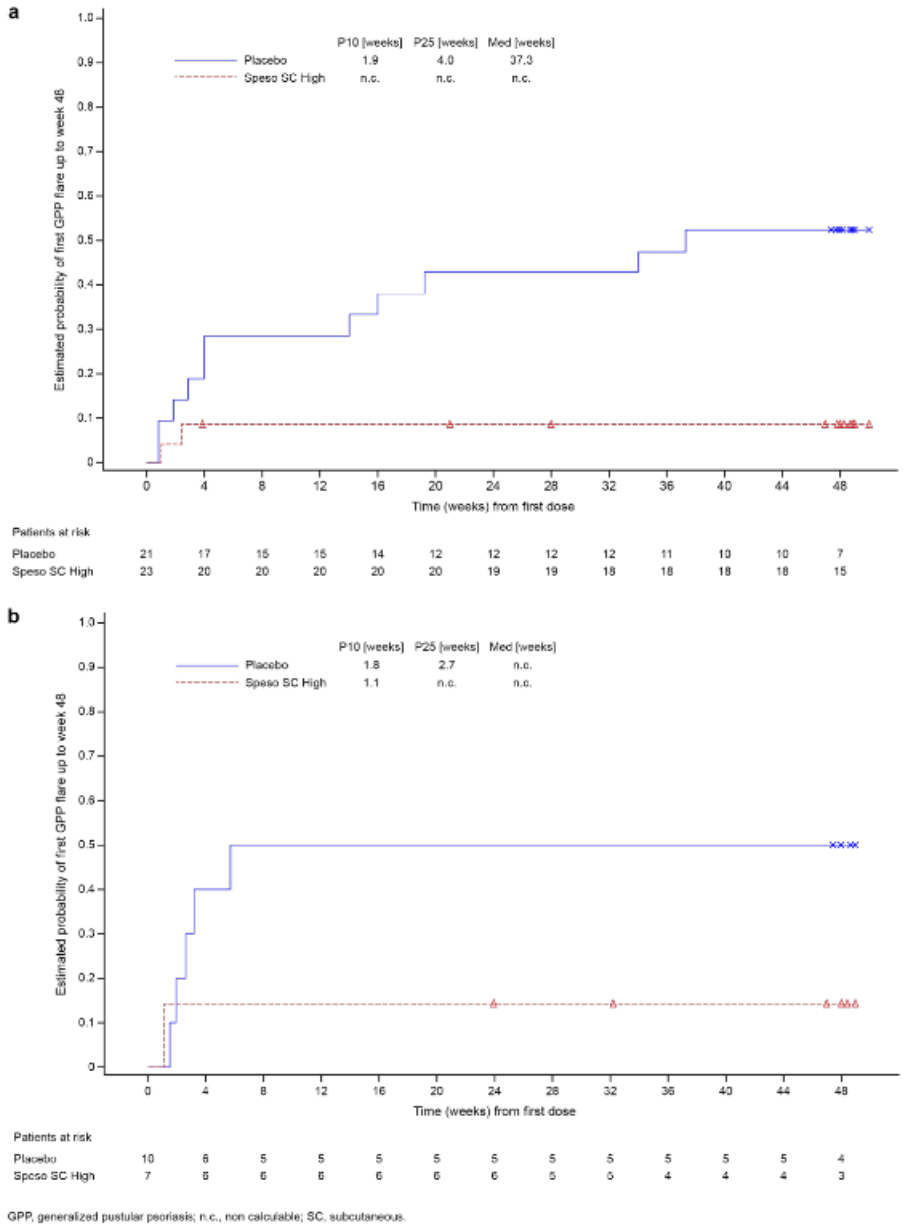
Results:

A total of 123 patients were randomised (placebo, N=31; high-dose spesolimab, N=30). Up to Week 48, hazard ratios (95% CI) for the primary endpoint favoured high-dose spesolimab vs placebo in most prespecified subgroups, including: with *IL36RN* mutation, 0.04 (0.002, 1.152); without *IL36RN* mutation, 0.41 (0.109, 1.537); PsV absent at baseline, 0.14 (0.031, 0.629 [Fig. 1a]); PsV present at baseline, 0.22 (0.025, 1.883 [Fig. 1b]); and BMI <25 kg/m2, 0.22 (0.057, 0.816); 25 to <30 kg/m2, 0.12 (0.005, 2.817); and ≥30 kg/m2, 0.23 (0.008, 6.033). For the key secondary endpoint (proportion of patients with ≥1 GPP flare), adjusted risk differences (95% CI) by Week 48 were lower in those receiving high-dose spesolimab vs placebo in the following prespecified subgroups: with *IL36RN* mutation, −0.75 (−1.000, −0.326); without *IL36RN* mutation, −0.22 (−0.504, 0.074); PsV absent at baseline, −0.41 (−0.672, −0.154); PsV present at baseline, −0.32 (−0.830, 0.191); and BMI <25 kg/m2, −0.46 (−0.771, −0.142); 25 to <30 kg/m2, −0.54 (−0.903, −0.186); and ≥30 kg/m2, −0.21 (−0.557, 0.134). These findings were generally consistent across most prespecified subgroups for both the primary and key secondary endpoint.

Conclusion:

Over 48 weeks, high-dose spesolimab was effective at preventing GPP flares irrespective of*IL36RN* mutation, comorbid PsV and BMI status at baseline. In general, a similar effect was observed for other prespecified patient subgroups.

Figure 1: Kaplan Meier charts of time to first flare in patients with GPP up to Week 48 by plaque psoriasis status (a) absent at baseline and (b) present at baseline



GPP, generalized pustular psoriasis; n.c., non calculable; SC, subcutaneous.

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Abstract N°: 2533

Solving an itchy problem

Anna Davies*[1], Nabil Ponnambath[1]

[1]Aneurin Bevan University Health Board, Dermatology, Newport, United Kingdom

Introduction & Objectives:

A 77 year old lady presented with a 2 year history of worsening intractable pruritus with associated nodules on the skin and significant excoriations. This was a longstanding problem having first presented to dermatology in 2006, with skin biopsy showing features consistent with eczema. Her past medical history included membranous nephritis, acquired hypothyroidism, epilepsy, asthma, fibromyalgia and arthritis. A further punch biopsy was performed which showed acanthosis, hypergranulosis and hyperkeratosis, with underlying non-specific chronic inflammation. Appearances were consistent with the clinical diagnosis of nodular prurigo. A pruritus screen was unremarkable, except for a mildly raised ANA of 1:80 with a homogenous nuclear pattern.

Materials & Methods:

Due to the significant effects on her quality of life, a reducing regimen of 30mg of prednisolone was started immediately, as well as super potent topical corticosteroids and regular emollients. Over the course of the next 2 years she tried many treatments with almost no effect on her symptom control. These treatments included acitretin, azathioprine, methotrexate, and phototherapy. In December 2022, an individual patient funding request was authorised for the use of dupilimab 300mg fortnightly. In just 3 months of treatment with the IL13/4 inhibitor, her stubborn itch and nodules had almost completely subsided. Subsequently her sleep had improved along with her quality of life.

Results:

Chronic nodular prurigo (CNPG) is a debilitating disease which can be refractory to classical treatment modalities. There is growing evidence that biologics may be the answer to management, with off-licence use of dupilimab opening up the understanding and mechanisms of pathophysiology that underlie the disease1. Generally it is believed to be a disease secondary to the scratching caused by pruritus which is deemed to be multifactorial, with atopic dermatitis (AD) being a common risk factor for developing CNPG2. With this in mind, there may be an association with Th2 immunity, as we believe to be the case in AD, hence switching this off may lead to the treatment of disease. Typical treatments tried amongst the dermatology community include topical corticosteroids, phototherapy, and immunosuppressive drugs such as ciclosporin and methotrexate; often to no avail.

A retrospective, multi-centre study looking into 27 patients with CNPG treated with dupilimab, off-label, showed statistically significant improvement in itch and sleeplessness scores, as well as reducing skin lesions2. Of interest, half of these patients did have a past history of AD, however those who didn't weren't shown to have reduced efficacy.

Conclusion:

Due to the growing evidence, and no effective first-line treatment option for CNPG, it is relevant for clinicians to consider this early on in the treatment pathway for this disease.

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Abstract N°: 2607

Paradoxical psoriasis due to secukinumab

Virginia Llanos[1], Juliana Yuri[1], Melisa Solari[1], Sebastian Augusto Mercau[1], Ramon Fernandez Bussy[1], Micaela Otal[1], María Gabriela Garrido[1], Ana Molteni[1]

[1]Rosario, Rosario, Argentina

Introduction & Objectives: Introduction

Paradoxical reactions include new cases or worsening of psoriasis, during treatment with biologic agents.

Clinically, a great variety of patterns could be divided into two groups. On one hand, 'de novo' psoriasis in patients receiving treatment for another inflammatory disease, presenting with pustular, palmoplantar, plaque, and guttate psoriasis. On the other, the exacerbation of a pre-existing psoriasis with or without a change in morphology.1

Given that anti-TNF-a drugs are the ones that have been used in for a long time in control of psoriasis and other diseases, there are a large number of reports identifying them as possible triggers for these reactions, postulating the alteration of the balance between TNF-α and interferon-α in its etiopathogenesis.

The most commonly associated agents are infliximab (>50% of cases), followed by adalimumab (30%) and etanercept (11%)2,3. However, it has been observed that the interaction with the IL-23/IL-17 axis would also be involved3. This is why other drugs have been implicated in the development of these reactions. Among them, secukinumab is exceptionally described as being responsible for them.

Materials & Methods: Clinical case

A 42-year-old woman, a history of smoking and severe hidradenitis suppurativa, Hurley III, DLQI 30, who underwent multiple surgical excisional and non-surgical treatments with topical and systemic drugs (antibiotics, isotretinoin). She was under treatment with adalimumab without an adequate response, so she started treatment with secukinumab.

Thirty-one months after the onset of this drug, he presented pruritic erythematous plaques on the back and scalp. A biopsy was performed that reported dermatosis with a psoriasiform type pattern.

Results: Comment

Since the advent of new biological therapies, paradoxical reactions to these drugs begin to be described. They have been described mainly with the use of anti-TNF-α agents, where a class effect is considered; however, there are more and more cases secondary to other biologics, such as secukinumab and other anti-IL-17.3,4 The interest of the presentation lies in the infrequency of these events with the exposed drug.

Conclusion: Taking into account that the new biological drugs are expanding their indications, and therefore the number of patients treated with them, is necessary to recognize the cutaneous adverse events, which often require the intervention of the dermatologist to decide whether to continue treatment.5 Due to the above, research studies and report the paradoxical reactions of the new biological therapies are necessary, as well as, close surveillance of patients treated with them.

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Abstract N°: 2627

Behcet's-like disease associated with anti-IL-17 therapy of psoriasis

Jingru Sun[1]

[1]Peking University First Hospital, Dermatology and Venereology, Beijing , China

Introduction & Objectives:

A 28-year-old woman with a 20-year history of psoriasis presented to our clinic 4 months ago. She had been treated with immunosuppressive drugs unsuccessfully, so she started anti-IL-17 therapy. After the fourth dose of IL-17 inhibitor, the patient experienced multiple asymptomatic papulopustular eruptions on the face with high fever, although her psoriasis improved a lot. Then she developed painful oral and genital lesions. Furthermore, painful lesions started on her lower limbs. In addition, she also complained anorexia, weight loss, and fatigue, while no ocular symptoms were reported. She was prescribed with antibiotics and antiviral drugs for 5 days, but with little remission. Physical examination revealed scattered papulopustules or maculopapules on the face. Besides, ulcers and erosions were found in her mouth, especially involving her tongue and palate. One erosion was also noticed on her labia majora. Several subcutaneous nodules were observed on her lower limbs.

Materials & Methods:

One skin biopsy taken from her subcutaneous nodule demonstrated a predominant lymphocytic infiltrate with neutrophils and eosinophils in superficial and deep dermis. Leukocytoclastic vasculitis with mixed lobular and septal panniculitis were showed. Bacterial, viral, and fungal cultures of the lesions and her blood were all negative. Laboratory examination revealed neutrophilia of 8770/mm3. She was also found to have increased levels of erythrocyte sedimentation rate and C-reactive protein. Moreover, slightly elevated transaminases with hypoalbuminemia and hypokalemia on a routine chemistry panel were also noticed. Although HLA-B51 was reported to be associated with Behcet's disease, her HLA-B51 was negative.

Results:

In view of the clinicopathological findings, the patient was diagnosed with Behcet's-like disease, possibly triggered by anti-IL-17 inhibitor. Anti-IL-17 inhibitor was withdrawn. Her condition improved a lot after oral corticosteroid treatment.

Conclusion:

There has been an increase in paradoxical reactions associated with biological therapies. Several studies have reported the development of Behcet's-like disease associated with anti-IIL-17 therapy. The onset of Behcet's-like disease after the IL-17 blocking agent has been considered as a novel paradoxical effect with unknown reason. Some authors suggested that inhibiting IL-17 might result in an inbalance of cytokine levels and alteration of T cell balance, thus leading to the onset of Behcet's-like disease. Here we present this case of Behcet's-like disease, wishing to draw dermatologists' attention to the possible new adverse effect of anti-IL-17 treatment. However, more cases are necessary to characterize this adverse effect.

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Abstract N°: 2698

A matching-adjusted indirect comparison of the efficacy of bimekizumab and guselkumab at 52 weeks for the treatment of psoriatic arthritis

Richard B. Warren*[1, 2], Iain Mcinnes[3], Peter Nash[4], Jean-Marie Grouin[5], Damon Willems[6], Vanessa Taieb[7], Jason Eells[8], Philip Mease[9]

[1]Dermatology Centre, Northern Care Alliance NHS Foundation Trust, Manchester, United Kingdom,[2]NIHR Manchester Biomedical Research Centre, Manchester University NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, United Kingdom, [3]College of Medical Veterinary and Life Sciences, University of Glasgow, Glasgow, United Kingdom, [4]School of Medicine, Griffith University School of Medicine, Brisbane, Queensland, Australia, [5]University of Rouen, Rouen, France, [6]UCB Pharma, Brussels, Belgium, [7]UCB Pharma, Colombes, France, [8]UCB Pharma, Slough, United Kingdom, [9]Swedish Medical Center and Providence St. Joseph Health, University of Washington, Seattle, Washington, United States

Introduction & Objectives:

Bimekizumab (BKZ), a selective inhibitor of IL-17F in addition to IL-17A, has recently demonstrated efficacy and safety in patients (pts) with active psoriatic arthritis (PsA) in two phase 3 trials: BE OPTIMAL1 (NCT03895203) and BE COMPLETE2 (NCT03896581). Guselkumab (GUS) is an IL-23 inhibitor approved for active PsA. In absence of head-to-head trials comparing BKZ and GUS in PsA, a matching-adjusted indirect comparison (MAIC) was conducted to assess relative efficacy of BKZ 160 mg every 4 wks (Q4W) vs GUS 100mg Q4W/ every 8 wks (Q8W) in pts with PsA who are biologic disease-modifying anti-rheumatic drug-naïve (bio-n) and tumour necrosis factor inhibitor-experienced (TNFi-exp, Q8W only) at 52 wks.

Materials & Methods:

Relevant trials were systematically identified.3 For bio-n pts, individual pt data (IPD) from BE OPTIMAL (N=431) was matched to summary data from DISCOVER-24 (NCT03158285; Q4W, N=246; Q8W, N=248). For TNFi-exp pts, IPD from BE COMPLETE (N=260) and summary data from COSMOS5 (NCT03796858; Q8W, N=189) were used. To adjust for cross-trial differences, pts from BKZ trials were reweighted to match the baseline characteristics of GUS trial pts; weights were determined using a logistic regression based on sex, age, methotrexate use, Health Assessment Questionnaire-Disability Index, % with psoriasis affecting ≥3% body surface area, swollen and tender joint counts, and disease duration. Adjustment variables were selected based on expert consensus (n=5) and adherence to established MAIC guidelines.6 Recalculated BKZ 52-wk outcomes for American College of Rheumatology (ACR) 20/50/70 and minimal disease activity (MDA) index (non-responder imputation [NRI]) were compared to GUS outcomes via non-placebo-adjusted comparisons and were reported as odds ratios (ORs). Significance was determined by the exclusion of value 1 from 95% CIs.

Results:

In bio-n pts, post-matching effective sample sizes (ESSs) for BKZ were 142 and 155 for comparisons to GUS Q8W and Q4W, respectively (Fig. 1a & 1b). BKZ was better than GUS Q8W in achieving ACR70 (OR [95% CI]: 2.08 [1.34, 3.22]; p=0.001) and MDA (2.07 [1.35, 3.17]; p<0.001) at Wk 52 (Fig. 2a). BKZ was also better than GUS Q4W in achieving ACR50 (1.62 [1.07, 2.44]; p=0.021), ACR70 (2.20 [1.43, 3.38]; p<0.001, and MDA (1.82 [1.20, 2.76]; p=0.005) at Wk 52 (Fig. 2b). In TNFi-exp pts, post-matching ESS for BKZ was 181 (Fig. 1c). BKZ was better than GUS Q8W in achieving all evaluated outcomes at Wk 52 (ACR20: 1.77 [1.15, 2.72]; p=0.010; ACR50: 1.56 [1.03, 2.36]; p=0.037; ACR70: 1.66 [1.06, 2.61]; p=0.028; and MDA: 1.95 [1.27, 3.02]; p=0.003) (Fig. 2c).

Conclusion:

Using MAIC, BKZ demonstrated higher efficacy on joint and MDA outcomes than GUS in bio-n and TNFi-exp PsA pts at Wk 52. Greater differences in response rates were observed for more stringent treatment outcomes. MAIC findings at 52 wks are consistent with a recent NMA suggesting better efficacy of BKZ against GUS on joint outcomes at 16 to 24 wks.3

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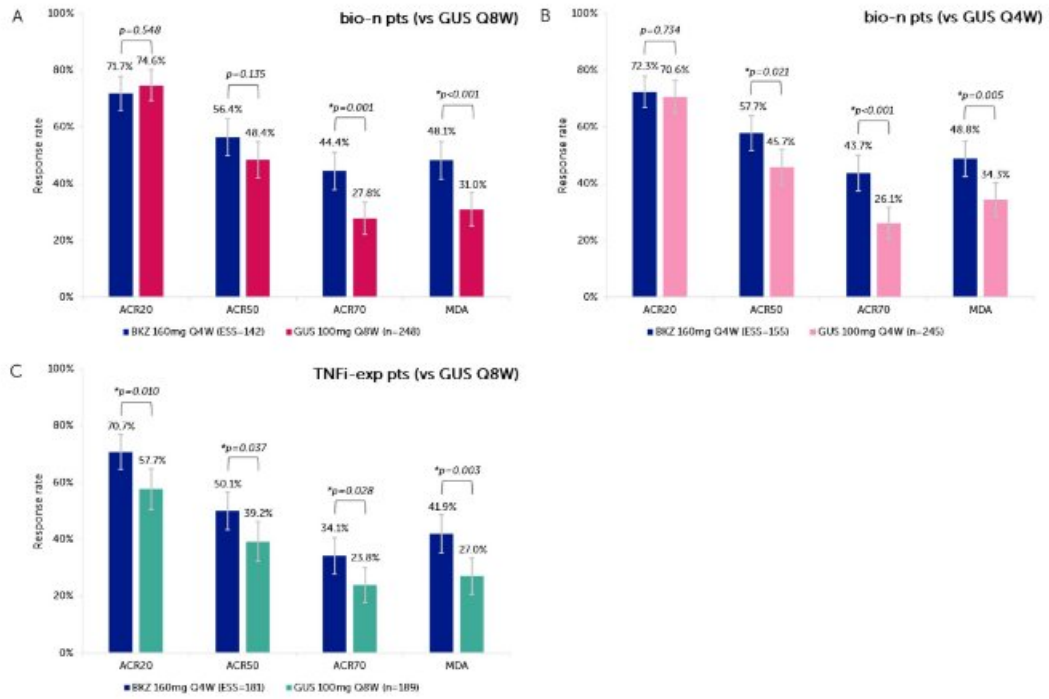
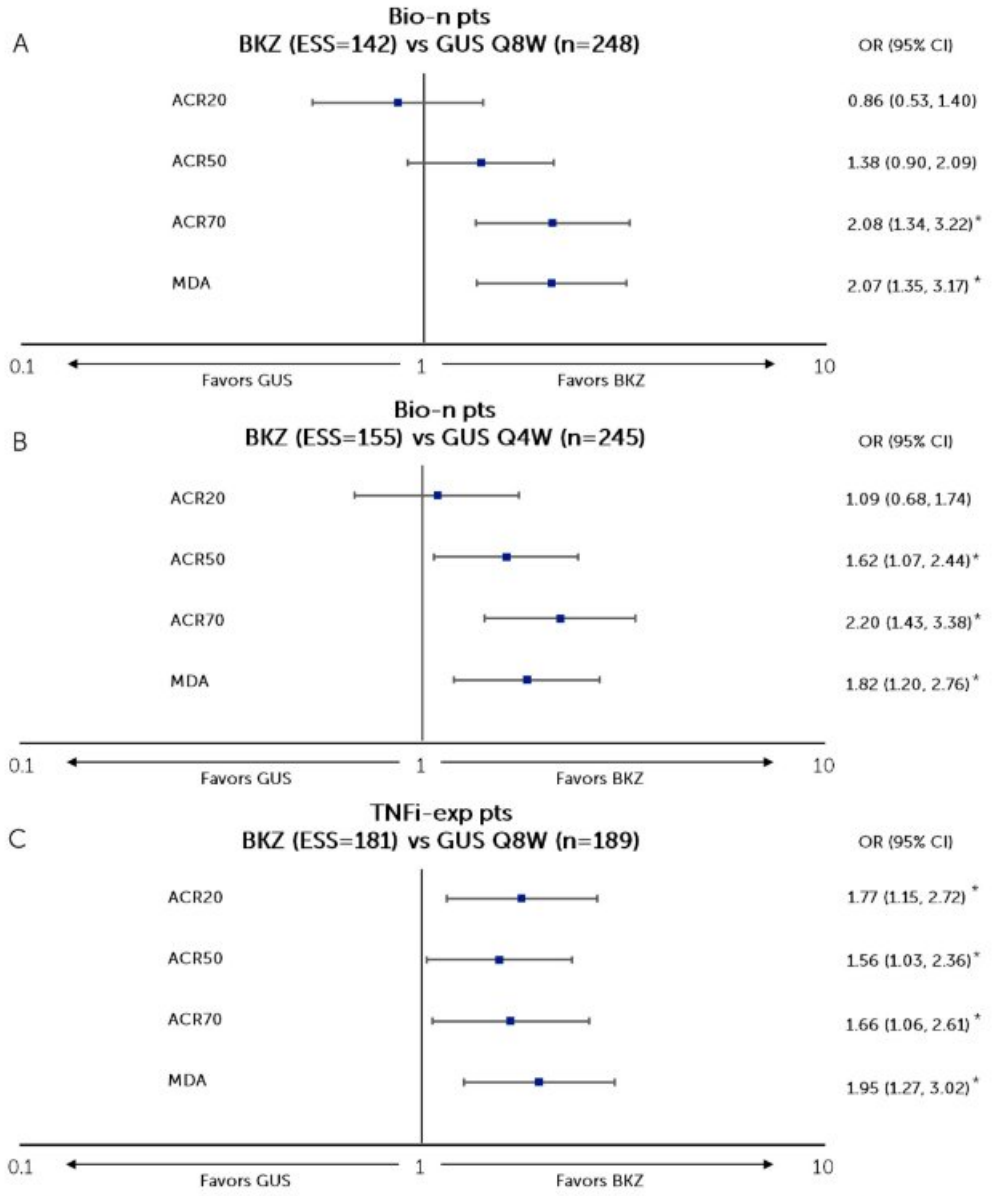
Figure 1. Matching-adjusted response rates of BKZ vs GUS in patients with active PsA at Wk 52 (NRI)



A) BKZ 160 mg Q4W vs GUS 100 mg Q8W in bio-n pts with PsA, B) BKZ 160 mg Q4W vs GUS 100 mg Q4W in bio-n pts with PsA, C) BKZ 160 mg Q4W vs GUS 100 mg Q8W in TNFi-exp pts with PsA
*Indicates statistical significance
ACR: American College of Rheumatology; Bio-n: biologic disease-modifying anti-rheumatic drug-naïve; BKZ: bimekizumab; ESS: effective sample size; GUS: guselkumab; NRI: non responder imputation; PsA: psoriatic arthritis; Pt: patient; Q4W: every four weeks; Q8W: every eight weeks; TNFi-exp: tumour necrosis factor inhibitor-experienced; Wk: week

Figure 2. Matching-adjusted odds ratio comparison of BKZ vs GUS at Wk 52 (NRI)



A) BKZ 160 mg Q4W vs GUS 100 mg Q8W in bio-n pts with PsA, B) BKZ 160 mg Q4W vs GUS 100 mg Q4W in bio-n pts with PsA, C) BKZ 160 mg Q4W vs GUS 100 mg Q8W in TNFi-exp pts with PsA
*Indicates statistical significance
ACR: American College of Rheumatology; Bio-n: biologic disease-modifying anti-rheumatic drug-naïve; BKZ: bimekizumab; CI: confidence interval; ESS: effective sample size; GUS: guselkumab; MDA: minimal disease activity; NRI: non responder imputation; OR: odds ratio; PsA: psoriatic arthritis; Pt: patient; Q4W: every four weeks; Q8W: every eight weeks; TNFi-exp: tumour necrosis factor inhibitor-experienced; Wk: week

EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 2708

Effecctive TB screening and follow-up for patients treated with immunobiologics agents in an endemic country.

Gleison Vieira Duarte[1], Gustavo Machado[1], Camila Leite[1], Jéssica Gianucci[1]

[1]Clínica IBIS

Introduction & Objectives:

The constant increase of indication and development of immunobiological agents in medicine, including Dermatology, rises the concern of patient safety, especialy regarding the risk of the tuberculosis infection (TB). While the use of TNF alfa inhibitors and anti-interleucins (IL) is shown to modulate the immune response and plays a significant role controling the disease, it also may interfeere in the protective mechanisms for TB infection as non-clinical disease the latent tuberculosis, in the formation and maitence of granulomas. Although most of the studies of biological drugs were conduced in contries with low rate of TB, it's real life data shown a higher risk of TB infection, especialy in endemic countries.

Materials & Methods:

From July to December 2020, during the Covid-19 pandemic, we observed in a private clinic located in Salvador/Brazil, in a total of 870 infusion therapies administrated, 661 elegible for retest of tuberculin skin test (TST), once it consists of anti-IL or anti-TNF, administrated in patients that had been tested for TB longer than 1 year before.

Results:

Despite of all the difficultes of the period, with estrategy that includeed the search for laboratories and patient and staff education, we aimed to had at least 50% of patients with retests in time, and achieved 86.2%. In our sample of 180 patients the majority, 105 was using anti-TNF (58%), and the use of anti-IL was observed in 38 (21%). Most of the patients had rheumatic disease, including rheumatoid artritis in 56 (31%), the main dermatological use was for Psoriasis, including patients with Psoriatic Arthritis a total of 45 (25%).

Conclusion:

Immunobiological agents consist as a novel medical therapy with proven efficacy and safety, that increases patients quality of life, and allows much better understanding of inflamatory diseases mechanisms and treatment. Amongst all of the elegible criterias for iniciating and mantening patients in biological therapy, the screening and follow-up for tuberculosis is on the most important, especially in endemic countries, and we recomend a close aproach in patients and staff for the success of the estrategy.

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Abstract N°: 2782

Combination of 308nm Excimer Laser with Ruxolitinib 1.5% cream in the Treatment of Steroid-Resistant Vitiligo.

Eduard Avagyan[1]

[1]Cosmolab Clinics, Yerevan, Armenia

Introduction & Objectives: Vitiligo is a multifactorial, polygenic disease of autoimmune etiology, in the development of which certain cytokines (IL-6, IL-8) and lymphocytes, CD8+ T cells play an important role, therefore, immunosuppressive, anti-inflammatory drugs, topical corticosteroids, topical calcineurin inhibitors and phototherapy are needed. The latest approach to treatment is the use of topical JAK inhibitors. In September 2022, the FDA approved the first topical JAK inhibitor for the treatment of vitiligo, ruxolitinib 1.5%, for 24 weeks or longer.

Materials & Methods: The report presents a clinical case of the comparative effectiveness of the combined use of a topical JAK-inhibitor (Ruxolitinib 1.5% cream) and phototherapy (308nm UVB excimer laser). A 31-year-old male patient with a 5-year history of non-segmental vitiligo has been using topical corticosteroids of various strengths (betamethasone dipropionate 0.5% ointment, clobetasol 0.5% cream, mometasone furoate 0.1% ointment) for about 2 years, the effectiveness of which was negligible. He then received 308-nm excimer laser phototherapy twice weekly for 25 weeks, combined with topical calcineurin inhibitor (tacrolimus 0.1% ointment) twice daily, after which the efficacy was again negligible. Then, the topical calcineurin inhibitor was replaced by a topical JAK-inhibitor. After 4 weeks, under conditions of combined use with phototherapy, a significant positive result was observed. The evaluation of the results was done by the same tool: according to f-VASI (facial vitiligo area severity index). Phototherapeutic interventions were performed on Tuesdays and Saturdays with a gradual increase in intensity (from 0.15 to 4.50 mJ/cm2). Topical JAK-inhibitor was applied daily, twice a day, to the skin of the face, around the mouth, around the eyes, and on the cheeks.

Results: The efficacy of the combination of ruxolitinib 1.5% and 308nm excimer laser was estimated to be >50% compared to baseline according to f-VASI.

Conclusion: Topical JAK-inhibitors are highly effective in the treatment of vitiligo, both as monotherapy and in combination with phototherapy, especially in cases where topical corticosteroids and topical calcineurin inhibitors are ineffective. Combination with phototherapy can shorten the duration of treatment.

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Abstract N°: 2790

A case of Prurigo Nodularis associated with Crohn's disease responding to upadacitinib

Duoqin Wang*[1], Hui Tang[1]

[1]Huashan Hospital，Fudan University, Department of Dermatology, Shanghai, China

Introduction & Objectives:

Prurigo nodularis is a distinctive reaction pattern produced by the itching-scratching cycle in patients with chronic pruritus. Approximately half of patients with prurigo nodularis have a history of atopic dermatitis. We describe to our knowledge the first case of prurigo nodularis under vedolizumab and ustekinumab in a patient with Crohn's disease.

Materials & Methods:

A 44-year-old female developed prurigo nodularis over her body and limbs while receiving vedolizumab and ustekinumab for the treatment of Crohn's diseas. She was diagnosed with Crohn's disease in November 2019 and received vedolizumab every two weeks. In January 2020, the patient developed pruriginous nodules in her legs and similar lesions gradually spread throughout the body. In June 2020, she was started on ustekinumab every 12 weeks for Crohn's disease. During this period, the rash continued to worsen and was unresponsive to topical steroid therapy, oral antihistamines and Traditional Chinese medicines. She began to receive intralesional corticosteroids injection in January 2021, along with topical clobetasol and ebastine. The patient's symptoms and skin manifestations improved significantly and remained stably controlled with oral antihistamines in the following one and a half years. She retained small intestine CT in March 2022 and was noted to have active inflammation and mild stenosis in the middle and lower ileum. In June 2022, pruriginous nodules with severe itching suddenly onset on the extensor surfaces of limbs and the trunk again, with Investigator General Assessment (IGA) score of 4 and itch Numerical Rating Scale (NRS) score of 8. No active bacterial or viral infection, nor previous history of atopic disease was found. Subsequent laboratory studies revealed elevated peripheral IL-1β of 28.1 pg/ml (reference range ≤ 12.4 pg/ml), elevated peripheral IL-5 of 4.5 pg/ml (reference range ≤ 3.1 pg/ml), and weakly positive pANCA, while both peripheral blood eosinophils and serum IgE were within the reference range. Considering the clinical symptoms, lesion morphology, course of disease and skin pathology, her diagnosis of prurigo nodularis was confirmed. Ustekinumab was immediately stopped. Glycyrrhizin and gabapentin were additionally prescribed but her symptoms remained refractory.

Concerning IL-12/IL-23 inhibitors may have contributed to the exacerbation her prurigo nodosa and her Crohn's disease was active, a decision was made to start upadacitinib treatment for both conditions. She was prescribed 15 mg of upadacitinib per day.

Results:

A marked improvement of her pruritus was seen in the first month, along with IGA score decreased to 2 and NRS score decreased to 0 two months later. At the time of writing her Crohn's disease and prurigo nodularis remains stably controlled under treatment of upadacitinib.

Conclusion:

Our patient has been diagnosed with Crohn's disease and prurigo nodularis. Upadacitinib is a selective JAK1 inhibitor, which inhibits the activation of T cells and the release of several inflammatory factors by inhibiting the

JAK-STAT pathway. Upadacitinib demonstrates good clinical efficacy in the treatment of IBD, rheumatoid and psoriatic arthritis, and atopic dermatitis. The patient experienced a significant improvement in pruritus within the first month. Currently, her Crohn's disease and prurigo nodularis are both under stable control, and no adverse reactions have been observed.

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Abstract N°: 2959

Bimekizumab efficacy and safety in patients with active psoriatic arthritis and psoriasis: 52-week results from the BE OPTIMAL and BE COMPLETE phase 3 randomised, placebo-controlled studies

Diamant Thaçi*[1], Akihiko Asahina[2], Mark Lebwohl[3], Iain Mcinnes[4], Joseph F. Merola[5, 6], Richard B. Warren[7, 8], Wolf-Henning Boehncke[9], Barbara Ink[10], Rajan Bajracharya[10], Jason Coarse[11], Alice B. Gottlieb[3]

[1]Institute and Comprehensive Center for Inflammation Medicine, University of Lübeck, Lübeck, Germany, [2]Department of Dermatology, The Jikei University School of Medicine, Tokyo, Japan,[3]Department of Dermatology, The Icahn School of Medicine at Mount Sinai, New York, United States, [4]College of Medical Veterinary and Life Sciences, University of Glasgow, Glasgow, United Kingdom, [5]Department of Dermatology, Harvard Medical School, Brigham and Women's Hospital, Boston, United States, [6]Division of Rheumatology, Department of Medicine, Harvard Medical School, Brigham and Women's Hospital, Boston, United States, [7]Dermatology Centre, Northern Care Alliance NHS Foundation Trust, Manchester, United Kingdom,[8]NIHR Manchester Biomedical Research Centre, Manchester University NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, United Kingdom, [9]Division of Dermatology and Venereology, Department of Medicine, Geneva University Hospitals, and Department of Pathology and Immunology, Faculty of Medicine, University of Geneva, Geneva, Switzerland, [10]UCB Pharma, Slough, United Kingdom, [11]UCB Pharma, Morrisville, United States

Introduction & Objectives:

Psoriatic arthritis (PsA) affects the skin, joints and entheses and is associated with reduced quality of life. Patients (pts) with clinically relevant skin involvement are often followed jointly by rheumatologists and dermatologists. Efficacy and safety of treatments in pts with varying levels of skin involvement is of clinical interest.

Bimekizumab (BKZ), a monoclonal IgG1 antibody that selectively inhibits interleukin (IL)17F in addition to IL17A, has shown efficacy and tolerability to 16 weeks (wks) in pts with PsA in the phase 3 BE OPTIMAL and BE COMPLETE studies.1,2

Materials & Methods:

Post hoc analysis of data from BE OPTIMAL and BE COMPLETE assessed BKZ vs placebo (PBO) in pts with PsA naïve to bDMARDs or inadequate response/intolerance to TNF-α inhibitors (TNFi-IR) and PSO BSA ≥3% at baseline (BL; Wk 0). Each study was double-blinded, PBO controlled for 16 wks. Pts randomised to PBO switched to BKZ at Wk 16 (PBO/BKZ) in both studies. BE OPTIMAL included an adalimumab reference arm.

Efficacy and safety are reported to Wk 52 in pts randomised to BKZ or PBO who had BL PSO affecting: ≥3%, ≥3–≤10% or >10% BSA. Missing data were imputed as non-responder (discrete) or multiple imputation (continuous).

Results:

357 bDMARD-naïve (217 BKZ; 140 PBO) and 264 TNFi-IR pts (176 BKZ; 88 PBO) had BL PSO BSA ≥3%. 121 bDMARD-naïve and 92 TNFi-IR pts had BL PSO BSA >10%. Of PSO BSA ≥3% pts, 332/356 (93.3%) completed BE OPTIMAL Wk 52 (1 PBO pt lost to follow-up and excluded from total); 230/264 (87.1%) pts completed BE COMPLETE Wk 52.

Improved efficacy responses seen with BKZ treatment at Wk 16 were sustained to Wk 52 in overall PSO subgroup

(**Table 1**). At Wk 52, 60.8% BKZ and 62.1% PBO/BKZ bDMARD-naïve, and 56.3% BKZ and 47.7% PBO/BKZ TNFi-IR pts achieved ≥50% improvement in American College of Rheumatology response criteria (ACR 50; **Figure**). PASI 100 (complete skin clearance) was observed in 52.1% BKZ and 60.7% PBO/BKZ bDMARD-naïve, and 65.9% BKZ and 60.2% PBO/BKZ TNFi-IR pts at Wk 52 (**Figure**). Results were consistent across BSA ≥3–10% and >10% subgroups (**Table 2**).

To Wk 52, 267/356 (75.0%) bDMARD-naïve and 142/255 (55.7%) TNFi-IR pts with PSO BSA ≥3% had ≥1 treatment-emergent adverse event (TEAE) while receiving BKZ (exposure-adjusted incidence rate per 100 pt-years [PY]; bDMARD-naïve: 186.5, TNFi-IR: 102.3). Serious TEAEs: 18 (5.1%; 6.0/100 PY) bDMARD-naïve; 15 (5.9%; 6.9/100 PY) TNFi-IR pts. *Candida* infections reported by 24 (6.7%; 8.1/100 PY) bDMARD-naïve and 7 (2.7%; 3.2/100 PY) TNFi-IR pts; all mild/moderate, none systemic. Of 356 bDMARD-naïve pts, there were 10 (2.8%) study discontinuations due to TEAEs, 90 (25.3%) drug-related TEAEs, 12 (3.4%) severe TEAEs and 1 death (unrelated to treatment). In 255 TNFi-IR pts, there were 9 (3.5%) study discontinuations due to TEAEs, 51 (20.0%) drug-related TEAEs, 12 (4.7%) severe TEAEs and 1 death (sudden death; pt with history of cardiac events). Results were consistent with overall study populations.1–3

Conclusion:

In both bDMARD-naïve and TNFi-IR pts with PsA and PSO, BKZ demonstrated sustained clinical efficacy across a range of tissue compartments from Wk 16–52, regardless of PSO severity. The safety profile of BKZ was consistent with previous reports; no new safety signals were seen.

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Table 1. Efficacy endpoints in overall PSO subgroup BSA ≥3% at Weeks 16 and 52 (NRI and MI)

	BSA ≥3%							
	BE OPTIMAL (bDMARD-naïve)				BE COMPLETE (TNFi-IR)			
	Week 16		Week 52		Week 16		Week 52	
	PBO n=140	BKZ n=217	PBO/BKZ n=140	BKZ n=217	PBO n=88	BKZ n=176	PBO/BKZ n=88	BKZ n=176
ACR 20 [NRI], n (%)	28 (20.0)	148 (68.2)	104 (74.3)	165 (76.0)	14 (15.9)	126 (71.6)	59 (67.0)	129 (73.3)
ACR 50 [NRI],[a] n (%)	9 (6.4)	104 (47.9)	87 (62.1)	132 (60.8)	5 (5.7)	83 (47.2)	42 (47.7)	99 (56.3)
ACR 70 [NRI], n (%)	5 (3.6)	66 (30.4)	56 (40.0)	95 (43.8)	0	55 (31.3)	29 (33.0)	73 (41.5)
PASI ≤1 [NRI], n (%)	15 (10.7)	158 (72.8)	112 (80.0)	170 (78.3)	8 (9.1)	129 (73.3)	66 (75.0)	133 (75.6)
PASI 90 [NRI], n (%)	4 (2.9)	133 (61.3)	106 (75.7)	155 (71.4)	6 (6.8)	121 (68.8)	65 (73.9)	131 (74.4)
PASI 100 [NRI], n (%)	3 (2.1)	103 (47.5)	91 (65.0)	132 (60.8)	4 (4.5)	103 (58.5)	53 (60.2)	116 (65.9)
SJC ≤1 [NRI], n (%)	25 (17.9)	143 (65.9)	106 (75.7)	159 (73.3)	13 (14.8)	113 (64.2)	60 (68.2)	125 (71.0)
TJC ≤1 [NRI], n (%)	7 (5.0)	70 (32.3)	51 (36.4)	108 (49.8)	4 (4.5)	43 (24.4)	30 (34.1)	76 (43.2)
ACR 50 + PASI 100 [NRI], n (%)	0	60 (27.6)	65 (46.4)	102 (47.0)	1 (1.1)	59 (33.5)	30 (34.1)	82 (46.6)
MDA responder rate [NRI], n (%)	10 (7.1)	103 (47.5)	78 (55.7)	125 (57.6)	3 (3.4)	80 (45.5)	33 (37.5)	87 (49.4)
HAQ-DI ≤0.5 [NRI],[b] n (%)	53 (37.9)	118 (54.4)	84 (60.0)	127 (58.5)	20 (22.7)	107 (60.8)	36 (40.9)	97 (55.1)
PtAAP CfB [MI],[c] mean (SE)	−6.5 (2.0)	−26.6 (1.9)	−37.0 (2.4)	−33.7 (1.9)	−5.4 (2.1)	−29.3 (2.2)	−36.3 (3.1)	−34.1 (2.2)

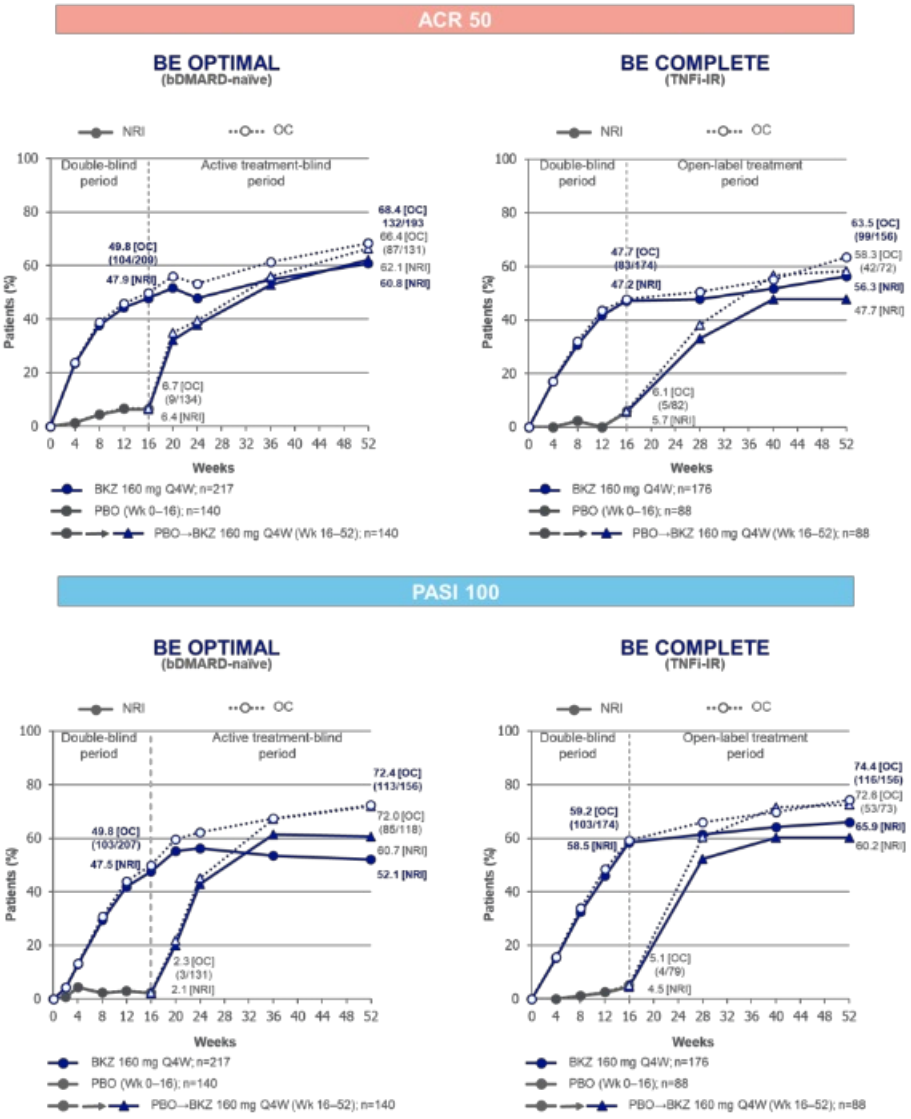
Randomised set in subgroup with PSO BSA ≥3% at baseline. [a] Primary endpoint for BE OPTIMAL and BE COMPLETE at Week 16. [b] Normative value. [c] PtAAP 0 (no symptoms) – 100 (severe symptoms). ACR: American College of Rheumatology; bDMARD: biologic disease-modifying antirheumatic drug; BKZ: bimekizumab; BSA: body surface area; CfB: change from baseline; HAQ-DI: Health Assessment Questionnaire – Disability Index; MDA: minimal disease activity; MI: multiple imputation; NRI: non-responder imputation; PASI: Psoriasis Area and Severity Index; PBO: placebo; PSO: psoriasis; PtAAP: Patient's Assessment of Arthritis Pain; SE: standard error; SJC: swollen joint count; TJC: tender joint count; TNFi-IR: tumour necrosis factor-α inhibitor inadequate response or intolerance.

Table 2. Efficacy endpoints in PSO subgroups BSA ≥3–≤10% and BSA >10% at Weeks 16 and 52 (NRI and MI)

	BE OPTIMAL (bDMARD-naïve)								BE COMPLETE (TNFi-IR)							
	BSA ≥3–≤10%				BSA >10%				BSA ≥3–≤10%				BSA >10%			
	Week 16		Week 52		Week 16		Week 52		Week 16		Week 52		Week 16		Week 52	
	PBO n=92	BKZ n=144	PBO/BKZ n=92	BKZ n=144	PBO n=48	BKZ n=73	PBO/BKZ n=48	BKZ n=73	PBO n=63	BKZ n=109	PBO/BKZ n=63	BKZ n=109	PBO n=25	BKZ n=67	PBO/BKZ n=25	BKZ n=67
ACR 20 [NRI], n (%)	16 (17.4)	95 (66.0)	68 (73.9)	105 (72.9)	12 (25.0)	53 (72.6)	36 (75.0)	60 (82.2)	10 (15.9)	78 (71.6)	39 (61.9)	77 (70.6)	4 (16.0)	48 (71.6)	20 (80.0)	52 (77.6)
ACR 50 [NRI],[a] n (%)	5 (5.4)	69 (47.9)	56 (60.9)	81 (56.3)	4 (8.3)	35 (47.9)	31 (64.6)	51 (69.9)	5 (7.9)	54 (49.5)	26 (41.3)	60 (55.0)	0	29 (43.3)	16 (64.0)	39 (58.2)
ACR 70 [NRI], n (%)	3 (3.3)	43 (29.9)	34 (37.0)	63 (43.8)	2 (4.2)	23 (31.5)	22 (45.8)	32 (43.8)	0	32 (29.4)	17 (27.0)	42 (38.5)	0	23 (34.3)	12 (48.0)	31 (46.3)
PASI ≤1 [NRI], n (%)	15 (16.3)	110 (76.4)	73 (79.3)	114 (79.2)	0	48 (65.8)	39 (81.3)	56 (76.7)	8 (12.7)	88 (80.7)	46 (73.0)	89 (81.7)	0	41 (61.2)	20 (80.0)	44 (65.7)
PASI 90 [NRI], n (%)	4 (4.3)	83 (57.6)	66 (71.7)	97 (67.4)	0	50 (68.5)	40 (83.3)	58 (79.5)	6 (9.5)	78 (71.6)	45 (71.4)	82 (75.2)	0	43 (64.2)	20 (80.0)	49 (73.1)
PASI 100 [NRI], n (%)	3 (3.3)	70 (48.6)	60 (65.2)	85 (59.0)	0	33 (45.2)	31 (64.6)	47 (64.4)	4 (6.3)	66 (60.6)	36 (57.1)	77 (70.6)	0	37 (55.2)	17 (68.0)	39 (58.2)
SJC ≤1 [NRI], n (%)	13 (14.1)	89 (61.8)	65 (70.7)	99 (68.8)	12 (25.0)	54 (74.0)	41 (85.4)	60 (82.2)	8 (12.7)	66 (60.6)	39 (61.9)	76 (69.7)	5 (20.0)	47 (70.1)	21 (84.0)	49 (73.1)
TJC ≤1 [NRI], n (%)	4 (4.3)	43 (29.9)	32 (34.8)	65 (45.1)	3 (6.3)	27 (37.0)	19 (39.6)	43 (58.9)	3 (4.8)	24 (22.0)	20 (31.7)	48 (44.0)	1 (4.0)	19 (28.4)	10 (40.0)	28 (41.8)
ACR 50 + PASI 100 [NRI], n (%)	0	43 (29.9)	41 (44.6)	64 (44.4)	0	17 (23.3)	24 (50.0)	38 (52.1)	1 (1.6)	39 (35.8)	19 (30.2)	52 (47.7)	0	20 (29.9)	11 (44.0)	30 (44.8)
MDA responder rate [NRI], n (%)	7 (7.6)	71 (49.3)	49 (53.3)	79 (54.9)	3 (6.3)	32 (43.8)	29 (60.4)	46 (63.0)	2 (3.2)	51 (46.8)	19 (30.2)	55 (50.5)	1 (4.0)	29 (43.3)	14 (56.0)	32 (47.8)
HAQ-DI ≤0.5 [NRI],[b] n (%)	39 (42.4)	83 (57.6)	57 (62.0)	84 (58.3)	14 (29.2)	35 (47.9)	27 (56.3)	43 (58.9)	12 (19.0)	66 (60.6)	22 (34.9)	60 (55.0)	8 (32.0)	41 (61.2)	14 (56.0)	37 (55.2)
PtAAP CfB [MI],[c] mean (SE)	−5.4 (2.5)	−26.4 (2.3)	−36.6 (2.9)	−32.3 (2.4)	−8.7 (3.6)	−27.1 (3.7)	−38.0 (4.5)	−36.5 (3.5)	−6.6 (2.5)	−27.2 (2.8)	−33.6 (3.7)	−31.6 (2.8)	−2.3 (4.0)	−32.6 (3.5)	−43.0 (5.7)	−38.1 (3.5)

Randomised set in subgroup with PSO BSA ≥3% at baseline. [a] Primary endpoint for BE OPTIMAL and BE COMPLETE at Week 16. [b] Normative value. [c] PtAAP 0 (no symptoms) – 100 (severe symptoms). ACR: American College of Rheumatology; bDMARD: biologic disease-modifying antirheumatic drug; BKZ: bimekizumab; BSA: body surface area; CfB: change from baseline; HAQ-DI: Health Assessment Questionnaire – Disability Index; MDA: minimal disease activity; MI: multiple imputation; NRI: non-responder imputation; PASI: Psoriasis Area and Severity Index; PBO: placebo; PSO: psoriasis; PtAAP: Patient's Assessment of Arthritis Pain; SE: standard error; SJC: swollen joint count; TJC: tender joint count; TNFi-IR: tumour necrosis factor-α inhibitor inadequate response or intolerance.

Figure. ACR 50 and PASI 100 responses over time to Week 52 in overall PSO subgroup BSA ≥3% (NRI and OC)



Randomised set in subgroup with PSO BSA ≥3% at baseline. ACR: American College of Rheumatology; bDMARD: biologic disease-modifying antirheumatic drug; BKZ: bimekizumab; BSA: body surface area; NRI: non-responder imputation; OC: observed case; PASI: Psoriasis Area Severity Index; PBO: placebo; PSO: psoriasis; Q4W: every 4 weeks; TNFi-IR: tumour necrosis factor-α inhibitor inadequate response or intolerance; Wk: week.

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Abstract N°: 3061

Eruptive lentiginosis confined to areas of resolving psoriatic plaques in a patient with erythrodermic psoriasis treated with ixekizumab

Jennifer Lavina Ngo*[1]

[1]Rizal Medical Center, Dermatology, Pasig, Philippines

Introduction & Objectives:

Materials & Methods:

Results:

Eruptive lentiginosis confined to areas of resolving psoriatic plaques (ELRP) is a rare phenomenon whose exact mechanism is still unknown. Existing literature has postulated the role of inflammatory cytokines such as TNF-alpha, interleukin-1, -6, and -17 in the suppression of melanocyte activity, and inhibition of these cytokines through biologics affecting these cytokines makes ELRP possible. ELRP has been described to occur within the first 6 months of biologic treatment, with other studies referring to ELRP as a form of post-inflammatory hyperpigmentation secondary to an exaggerated response that is associated with a greater disease severity or faster response to treatment. With only a few known cases, ELRP has been reported to arise from systemic biologics and non-biologics (methotrexate and apremilast). Among the biologics, TNF-alpha inhibitors, IL-12/23 inhibitors, IL-17-inhibitors, and IL-23 inhibitors have shown to be associated with the appearance of ELRP. This is the case of a 16-year-old Filipino male with erythrodermic psoriasis who received a combined systemic treatment of methotrexate and cyclosporine along with topical steroids for 6 months with minimal response. There was no history of phototherapy. Due to the refractory nature of his disease, the patient was treated with the interleukin-17 inhibitor ixekizumab in an off-label indication and dose for his age group in the Philippines. After 12 weeks of ixekizumab 80 mg/mL subcutaneous injections every 4 weeks, the patient achieved PASI 75 with no reported adverse events; however, he was observed to have new-onset light brown macules scattered over the back. There were no lesions seen on the oral mucosa. Dermoscopy revealed a non-specific homogenous brown structureless area that can be found in melanocytic lesions of benign nature, while a 3.5-mm skin punch biopsy pointed to an interface dermatitis. On clinicopathologic correlation, the patient was deemed to have ELRP. As of this writing, the patient is still undergoing treatment with the same ixekizumab regimen at week 20 with good response at PASI 90. To the author’s knowledge, this is the 2nd reported case of ELRP after treatment with ixekizumab, and now belongs to the growing body of evidence documenting ELRP as a possible sequela to the treatment of psoriasis.

Conclusion:

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Abstract N°: 3101

IL-17A target for pustular psoriasis – a case series

Anna Davies*[1], Nabil Ponnambath[1]

[1]Aneurin Bevan University Health Board, Dermatology, Newport, United Kingdom

Introduction & Objectives:

Generalised pustular psoriasis (GPP) is a rare and difficult-to-treat subset of our psoriatic patient load. Patients can have debilitating disease, often presenting acutely with systemic upset. Therapeutic guidelines looking at GPP are sparse and often direction has been sought from case reports and small studies1. The mechanisms related to the pathophysiology of GPP are coming to light, indicating pathways responsible. The role of IL-17 has been shown to be found in higher concentration in pustular patients compared with plaque and guttate forms2. A review of the literature suggests that this may be a future first line target for GPP patients3,4.

Materials & Methods:

We present a case series of 4 patients who underwent treatment with the biologic secukinumab; a monoclonal antibody selectively targeting IL-17A.

Results:

1. A 68 year old gentleman with two admissions to hospital with widespread GPP was unwell with a classical leucocytosis with left shift, hypoalbuminaemia, and raised inflammatory markers. Psoriasis Area and Severity Index (PASI) score six weeks after starting secukinumab was 5.6, and PASI 0 on subsequent follow ups. (2) A 59 year old gentleman with a stubborn pustular phenotype having failed five different systemic agents had almost complete clearance within 6 months of treatment. (3) A 21 year old lady had complete response of her severe pustular psoriasis with secukinumab whilst under rheumatology for her psoriatic arthritis. This had stopped due to pregnancy with a severe rebound erythroderma; now post-partum secukinumab was recommenced with great improvement. (4) A 57 year old lady with a background of obesity and asthma, commenced secukinumab following admission for severe erythrodermic GPP. Her follow up 4 months into treatment showed a PASI 0.7.

Conclusion:

These 4 patients, each with different backgrounds and levels of comorbidities, have shown promising and consistent results with secukinumab. Due to the high morbidity of such patients it is important to have efficacious treatment options to avoid recurrent hospital admissions, and in the worse-case scenario, fulminant skin failure.

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Abstract N°: 3109

Switching from original adalimumab to biosimilar – patients' perception and satisfaction analysis

Joana Matos[1], César Magalhães[2], Miguel Costa[2], Catarina Queirós[2], Paulo Varela[2]

[1]Centro Hospitalar Vila Nova de Gaia/Espinho, Dermatology, Vila Nova de Gaia, Portugal,[2]Centro Hospitalar Vila Nova de Gaia/Espinho, Dermatology

Introduction & Objectives: Over the last years monoclonal antibodies have revolutionized the treatment of immune mediated inflammatory diseases. Adalimumab (ADA) is an anti-tumour necrosis factor agent, currently approved for several of these diseases, namely psoriasis, whose natural history it has transformed. However, the inherent high costs of biological agents sometimes limit the access to these therapeutics. The expiration of patent has led to the development of several ADA biosimilar drugs, thus reducing the financial burden associated with the use of these agents.

Materials & Methods: The purpose of this study was to evaluate patients' perception and satisfaction when switching from the original ADA to a biosimilar. We identified 11 patients with psoriasis who switched from the original ADA to an ADA biosimilar. 1 year after the switch, 9 (81,8%) of the initial 11 patients were still under treatment with the biosimilar drug without loss of effectiveness, 1 patient had to stop biological therapy due to a severe infection, and 1 patient had to return to original ADA 3 months after the switch due to worsening of the disease. Those 9 patients who remained under therapy with biosimilar ADA were submitted to a telephonic survey and we were able to collect data from 8 of these patients.

Results: 75% (n=6) of the participants were male; the mean age of 48,4 years (SD±14,7) and mean duration of disease was 18,3 years (SD±11,3). Twenty-five percent (n=2) of the participants had been taking original ADA for 1-5 years and the remaining 75% (n=6) were long-term users (>5 years). In terms of satisfaction about the switch, in a scale of 1 to 4, 37,5% (n=3) of the participants considered to be "very satisfied (4)", 25% (n=2) being "somewhat satisfied (3)", 25% (n=2) "little satisfied (2)" and only 1 (12,5%) stated that he was "not satisfied at all (1)". One of the main reasons for lower satisfaction was the perception of greater pain while administering, quantified as "much worse" by 25% of respondents (n=2) and "slightly worse" by 62,5% (n=5). At the time of the switch, only 3 patients (37,5%) were trained on how to use the new ADA pen; nevertheless, in this sample, no statistically significant relationship was found between lack of training and a greater perception of pain (p=0,38). Five (62,5%) of the participants stated that they would prefer to remain on the original drug however only 1 would be willing to pay the difference to be kept under the original ADA.

Conclusion: The introduction of biosimilar ADA has provided an affordable treatment option for patients with immune mediated diseases like psoriasis, increasing treatment to a higher number of patients, while reducing the financial burden associated to the use of these drugs in healthcare systems with limited resources. Nevertheless, it is important to consider that their implementation requires a patient-centered approach that prioritizes clear communication, education, and ongoing monitoring.

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Abstract N°: 3137

Dupilumab off-label use: a case series from a Spanish hospital

María González Ramos[1], Maria Asuncion Ballester Martinez[1], Pablo Fernandez Gonzalez[1], Jorge Naharro-Rodriguez[1], Javier Perez-Bootello[1], Luis Alfonso Pérez-González[1], Pedro Jaen Olasolo[1], Bibiana Pérez[1]

[1]Ramón y Cajal Hospital, Dermatology, Madrid, Spain

Introduction & Objectives:

Dupilumab prevents IL-4 and IL-13 signaling, crucial cytokines in the T2 response. In dermatology, its use is approved for the treatment of severe atopic dermatitis from 6 months of age in patients who are candidates for systemic treatment. Recently, the treatment of moderate to severe prurigo nodularis (PN) in patients' candidates for systemic treatment was included among the indications. New possible indications are increasingly explored and include diseases such as nummular eczema, allergic contact dermatitis, chronic hand eczema, spontaneous urticaria, bullous pemphigoid (BP) and alopecia areata.

Materials & Methods:

We present a series of 14 cases from real clinical practice from the dermatology service of the Hospital Ramón y Cajal (Madrid, Spain) who were treated with dupilumab off-label. All had been resistant to other treatment lines or had comorbidities that contraindicated them. Among the diseases presented, some of them had been reported within the off-label indications, but we also contributed as a novelty two cases of Darier's disease. We also included patients diagnosed with PN because when the treatment was started it was not yet approved for this indication and, moreover, for the time being in Spain it cannot be prescribed unless it is off-label until a market price is established.

Results:

We are currently treating 14 patients, five of them diagnosed with PN. All of them had a rapid improvement of pruritus, with complete (1/5) or almost complete (3/5) resolution of the lesions. The last one is pending evaluation due to the recent onset of treatment.

In addition, 4/15 were diagnosed with BP, of whom 3 had the clinical form of nodular pemphigoid. One patient had complete resolution of lesions and pruritus; another had a partial response but still marked improvement. The other two are pending evaluation as the drug has recently been initiated.

One patient had chronic hand eczema with initial improvement of symptoms but was lost to follow-up. Another was diagnosed with palmoplantar eczema. After starting dupilumab presented with complete resolution of lesions and pruritus, with worsening after spacing the dose. Currently stable on a dose of 300 mg every 3 weeks. Furthermore, one patient presented nummular eczema with complete response.

Finally, we present two patients with Darier's disease treated with dupilumab. One of them has shown great improvement with decreased extension, erythema, papules, erosions and desquamation. The other has just started treatment and is awaiting evaluation of the response.

Side effects were observed in 5/15 patients. Most were mild, with dry eyes and dizziness being the most frequent. Treatment was discontinued in one patient due to adverse effects with improvement after discontinuation.

Conclusion:

In conclusion, due to its efficacy as a treatment for inflammatory dermatological pathologies involving the Th2 pathway and its high safety profile, we believe dupilumab is a good therapeutic option in patients refractory to other lines of treatment.

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Abstract N°: 3298

Indirect comparison of the short-, mid-, and long-term efficacy of treatments for moderate to severe plaque psoriasis: a systematic review and network meta-analysis

April W. Armstrong[1], Richard B. Warren[2], Yichen Zhong[3], Joe Zhuo[3], Allie Cichewicz[4], Ananth Kadambi[4], Daniela R. Junqueira[4], Tracy Westley[4], Renata M. Kisa[3], Carolin Daamen[3], Matthias Augustin[5]

[1]Keck School of Medicine, University of Southern California,[2]The University of Manchester, [3]Bristol Myers Squibb, [4]Evidera, [5]University Medical Center

Introduction & Objectives: Deucravacitinib demonstrated superior efficacy versus apremilast and placebo in two phase 3 randomized controlled trials (RCTs) in patients with moderate to severe plaque psoriasis. A systematic literature review (SLR) and network meta-analysis (NMA) were performed to indirectly compare deucravacitinib with other relevant systemic biologic/nonbiologic treatments. Deucravacitinib is approved in the US, EU, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy.

Materials & Methods: Electronic databases were searched through October 2021 for RCTs of systemic treatments in adults with moderate to severe psoriasis that reported Psoriasis Area and Severity Index 75% (PASI 75) response rates. NMA was performed using multinomial random-effects models adjusting for baseline-placebo risk to estimate PASI 75 responses over short-, mid-, and long-term follow-up periods (Weeks 10-16, 24-28, and 44-60, respectively). Phase 3 trial data were included only when nonresponder imputation was applied.

Results: The SLR identified 251 RCT publications; 45 were included in the NMA. Deucravacitinib showed the best PASI 75 response rate among oral systemic therapies (methotrexate and apremilast) at Weeks 16, 24, and 52. Deucravacitinib PASI 75 response rate (95% credible interval) at Week 16 was 54.1% (46.5%-61.6%), within the range of first-generation biologics, from etanercept (39.7%; 31.6%-48.3%) to infliximab (79.0%; 74.0%-83.5%). At Week 24, PASI 75 response for deucravacitinib increased to 63.3% (58.0%-68.4%), while PASI 75 responses for first-generation biologics ranged from 43.7% (35.0%-53.0%) for etanercept to 75.0% (69.9%-79.4%) for ustekinumab. At Week 52, PASI 75 response rate for deucravacitinib was 65.9% (58.0%-73.4%), which was comparable to the most effective first-generation biologics, adalimumab (62.8%; 55.3%-69.6%) and ustekinumab (68.0%; 64.6%-71.5%). Newer interleukin-17 and -23 inhibitors showed the highest PASI 75 response rates of the included treatments across time points.

Conclusion: Among oral treatments, deucravacitinib provided the best efficacy across time points. At 52 weeks, the PASI 75 response rate for deucravacitinib was similar to that of first-generation biologics. Deucravacitinib may be a valuable new treatment for patients with moderate to severe psoriasis.

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Abstract N°: 3302

Cyclosporine in palmoplantar pustulosis and atopic dermatitis

Bogdan Tarcau*[1], Diana-Elena Stanciu[2], Dan Vata[1]

[1]„Grigore T. Popa" University of Medicine and Pharmacy, Iasi, Romania,[2]Saint Spiridon County Hospital, Iași, Romania

Introduction & Objectives:

Palmoplantar pustulosis is a chronic inflammatory skin disease characterized by crops of sterile pustules associated with erythema, scale and fissures on the palms and soles. Atopic dermatitis is another chronic, relapsing, highly pruritic inflammatory skin condition, which rarely overlaps with palmoplantar pustulosis in the adult population, causing significant distress.

Materials & Methods:

A search was conducted in May 2023 in PubMed using the key terms 'palmoplantar pustulosis', 'atopic dermatitis' and 'cyclosporin'. The information received from the above search was used in the compilation of the present article. Patient consent was obtained for the academic use of clinical photos.

Results:

We report the case of a 49-year-old patient who presented to our clinic with debilitating erythematous, scaly plaques associated with pustules and residual brown macules on the palmar surfaces of the hands, fingers and interdigital spaces. Similar lesions, but less extensive, were present on the soles and lateral aspects of the feet. Lesions developed 1 year before the presentation and the patient underwent several dermatological treatments, including topical corticosteroids and methotrexate, but no sufficient clinical remission and lack of tolerance, respectively, were encountered. The patient also declared recurrent episodes of a pruritic rash developing symmetrically on the antecubital fossae and a family history of allergic rhinitis. The patient was started on cyclosporine 2.5 mg/kg/day, with almost complete clinical remission after 1 month. At 6 months follow-up patient was in complete clinical remission.

Conclusion:

Palmoplantar pustulosis can be a debilitating skin condition, which in this case interfered with the patient's work ability. Given the lack of sufficient clinical remission with topical treatments, the need for a quick response, as the quality of life of the patient was severely affected, and the association with atopic dermatitis, cyclosporine was considered to be the drug of choice. The ideal duration of the cyclosporine therapy is a debatable subject, with no well established guidelines.

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Abstract N°: 3355

Cumulative clinical benefit over 52 weeks comparing initiation with deucravacitinib versus apremilast in patients with moderate to severe plaque psoriasis: a post hoc analysis of POETYK PSO-1 trial results stratified by prior treatment

April W. Armstrong[1], Sang Hee Park[2], Vardhaman Patel[2], Pierre Nicolas[2], Wei-Jhih Wang[3], Matthew Colombo[2], Viktor Chirikov[3]

[1]Keck School of Medicine, University of Southern California,[2]Bristol Myers Squibb, [3]OPEN Health Evidence & Access

Introduction & Objectives: Given different treatment pathway options for moderate to severe plaque psoriasis, a need exists to identify those pathways that provide greater benefit. This study is a post hoc analysis of POETYK PSO-1 comparing the 52-week cumulative benefit of initiating and staying on deucravacitinib versus starting on apremilast and continuing apremilast or switching to deucravacitinib for patients with moderate to severe plaque psoriasis who had inadequate response (<50% reduction in Psoriasis Area and Severity Index score [PASI 50]) at Week 24. Deucravacitinib is approved in the US, EU, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy. Results were stratified by prior biologic and systemic treatment use.

Materials & Methods: Using patient-level data from POETYK PSO-1, the cumulative clinical benefit from randomization to Week 52 was calculated as the total area under the curve of the proportion of responders for PASI 75 and static Physicians Global Assessment 0 or 1 (sPGA 0/1). Regression models were used to adjust for baseline characteristics. Results are presented as a percentage of the maximum possible benefit (ie, 100% response for all 52 weeks). Nonresponder imputation was used for missing responses.

Results: Among apremilast initiators (n=168), 87 continued on apremilast and 54 switched to deucravacitinib after Week 24 due to inadequate response (<PASI 50). Over 52 weeks, initiating with deucravacitinib (n=332) delivered greater cumulative PASI 75 benefit, regardless of prior treatment, than initiating with apremilast (55.2% vs 41.9%, biologic naive; 59.0% vs 32.3%, biologic experienced; 51.7% vs 38.0%, systemic naïve; 60.0% vs 38.1%, systemic experienced). sPGA 0/1 findings were similar (46.4% vs 31.3%, biologic naive; 46.1% vs 24.2%, biologic experienced; 43.7% vs 25.3%, systemic naive; 51.9% vs 33.5%, systemic experienced).

Conclusion: Initiating treatment with deucravacitinib provides greater cumulative clinical benefit than apremilast for moderate to severe plaque psoriasis patients, regardless of prior treatment.

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Abstract N°: 3359

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 inhibitor, in moderate to severe plaque psoriasis: Correlations between patient-reported outcomes and clinical responses in the phase 3 clinical trials POETYK PSO-1 and POETYK PSO-2

April W. Armstrong[1], Kim A. Papp[2], Joe Zhuo[3], Brandon Becker[3], Yichen Zhong[3], Jennifer L. Beaumont[4], Michael Derosa[4], Renata M. Kisa[3], Subhashis Banerjee[3], Bruce Strober[5, 6]

[1]Keck School of Medicine, University of Southern California,[2]Probity Medical Research Inc., [3]Bristol Myers Squibb, [4]Clinical Outcomes Solutions, [5]Yale School of Medicine, Yale University, [6]Central Connecticut Dermatology

Introduction & Objectives: The phase 3 clinical trials POETYK PSO-1 (N = 666) and PSO-2 (N = 1020) randomized adult patients with moderate to severe plaque psoriasis 2:1:1 to deucravacitinib, placebo, or apremilast. Using data pooled from both trials, this post hoc analysis evaluated the correlation between clinical outcomes, as assessed by the Psoriasis Area and Severity Index (PASI) and static Physician's Global Assessment (sPGA), and patient-reported outcomes (PROs), as assessed by the Psoriasis Symptoms and Signs Diary (PSSD) and Dermatology Life Quality Index (DLQI). Deucravacitinib is approved in the US, EU, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy.

Materials & Methods: With all treatment groups combined, Spearman correlation coefficients were calculated for score changes from baseline to Week 16 for PASI with PSSD and DLQI total scores. Mean PRO scores were determined within clinical response subgroups. The proportions of patients achieving meaningful improvements (ie, response) in total score for PSSD (≥25 points) and DLQI (≥4 points) were summarized by whether they did or did not achieve 75% reduction from baseline PASI score (PASI 75), analyzed by deucravacitinib and placebo treatment arms.

Results: Score change from baseline to Week 16 was correlated between PASI and PSSD total score (rs = 0.536), and between PASI and DLQI total score (rs = 0.421). In each trial, significantly greater proportions of patients who received deucravacitinib achieved PASI 75 than those who received placebo. Greater clinical response was associated with greater PRO response. In addition, PSSD and DLQI responses were reported by greater proportions of deucravacitinib-treated patients than placebo-treated patients, in patients both with and without PASI 75 response. Among patients who achieved PASI 75, 68.6% of deucravacitinib-treated patients reported PSSD response vs 31.3% of patients who received placebo. Among patients who did not achieve PASI 75, 41.8% of deucravacitinib patients reported PSSD response vs 10.4% of patients who received placebo. Greater proportions of deucravacitinib patients reported DLQI response vs those who received placebo in patients both with and without PASI 75 response.

Conclusion: The correlation between PROs and clinical endpoints in POETYK PSO-1 and PSO-2 was consistent with that reported in other studies. Higher rates of PRO response were observed in the deucravacitinib arm than in the placebo arm, among patients both with and without PASI 75 response.

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Abstract N°: 3360

Is TNF-alpha inhibitor therapy a good choice for patients with concomitant hidradenitis suppurativa and psoriasis vulgaris?

Irena Kovacevic[1], Marija Brnić[1], Ana Stipić[1], Bepa Pavlić[1], Neira Puizina-Ivic[1]

[1]Clinical Hospital Centre Split, Dermatovenerology, Split, Croatia

Introduction:

Psoriasis vulgaris (PV) and hidradenitis suppurativa (HS) are two chronic, inflammatory skin conditions that can coexist in some people. Various studies have shown an overlap in pathogenetic pathways in HS and PV. The common pathogenetic “triggers” for the onset of both diseases are keratinocyte damage and the activation of a large number of different cytokines like IFN-alpha, TNF-alpha, IL-23 and IL-17, which direct the differentiation of helper T lymphocytes toward, for the most part, the Th17 subgroup. Multiple studies show enhanced IL-17 gene expression in both psoriatic and HS lesions.

Results:

We present the case of a 52-year-old man with concurrent PV, HS and a liver lesion. The patient has a 25-year history of Hurley III HS in his gluteal, genital, and inguinal regions and a 20-year history of medium form PV, with a PASI score of 18. Due to contraindications, the patient was treated with local and surgical therapy for HS and local therapy for PV, as conventional systemic therapy was not feasible. During the time, HS lesions became more widespread and painful. In December 2022, he began treatment with adalimumab, the only biologic medication for HS that has been approved in Croatia. Simultaneously, the patient was treated with surgical therapy, but despite therapy, there is only a minor improvement in HS and a total regression in PV.

Conclusion:

Multiple studies have indicated an increased occurrence of HS in patients with PV as compared to the general population. In cases where these two conditions coexist, the disease that appears first usually has a more severe clinical course and a worse therapeutic response, which is also the case with our patient. Given that the therapeutic response of our patient’s HS lesions to the administered anti-TNF-alpha therapy is unsatisfactory, we believe that for the group of patients suffering from both diseases, the introduction of other biologics (infliximab, etanercept, certolizumab pegol, etc.) would be more efficient. It is already established that the IL-12 and IL-17/IL-23 axis are crucial in the etiopathogenesis of these two diseases. Therefore, the administration of ustekinumab to block the pathogenetic pathway of IL-12/IL-23 or exclusively IL-23-targeting medications such as risankizumab or guselkumab should be considered as other therapeutic options in the future. Adalimumab remains the only drug approved by the FDA and EMA for treating HS. Through this case report, our aim is to increase awareness about the crucial need for approving other therapeutic options for patients who suffer from both conditions, and do not exhibit a satisfactory response to the treatment with TNF-alpha inhibitors. As our patient did not respond satisfactorily to the anti-TNF-alpha therapy given for his HS lesions, we recommend that for the group of patients experiencing both conditions, the introduction of other biologics would be more efficient in controlling the diseases.

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Abstract N°: 3364

Deucravacitinib significantly improves symptoms and signs of psoriasis in patients with moderate to severe psoriasis: Results from the phase 3 POETYK PSO-1 and POETYK PSO-2 trials

April W. Armstrong[1], Bruce Strober[2, 3], Joe Zhuo[4], Brandon Becker[4], Subhashis Banerjee[4], Andrew Napoli[4], Renata M. Kisa[4], John Throup[4], Kim A. Papp[5]

[1]Keck School of Medicine, University of Southern California,[2]Yale University, [3]Central Connecticut Dermatology Research, [4]Bristol Myers Squibb, [5]Probity Medical Research

Introduction & Objectives: The phase 3 POETYK PSO-1 and PSO-2 trials in moderate to severe plaque psoriasis showed that deucravacitinib treatment was associated with significantly greater improvements than placebo or apremilast at Week 16 on the Psoriasis Symptoms and Signs Diary (PSSD). This validated patient-reported outcome measures the severity of 5 skin symptoms (itch, pain, stinging, burning, skin tightness) and 6 signs (skin dryness, cracking, scaling, shedding/flaking, redness, bleeding) of psoriasis; higher scores indicate greater severity. This report describes longitudinal changes in PSSD in deucravacitinib-treated patients vs placebo.

Materials & Methods: The 52-week, double-blind POETYK PSO-1 and PSO-2 trials randomized patients with moderate to severe plaque psoriasis (BSA involvement ≥10%, PASI ≥12, sPGA ≥3) 1:2:1 to placebo, deucravacitinib 6 mg once daily, or apremilast 30 mg twice daily. Patients recorded psoriasis symptoms and signs daily in the PSSD (24-h recall); weekly scores were the average of the previous 7 days. Changes from baseline in individual signs and symptoms were compared between treatment groups over Weeks 0–16 (end of placebo treatment); changes through Week 52 in PSO-1 and through Week 24 before rerandomization in PSO-2 were reported for the deucravacitinib group. A meaningful within-patient change threshold (MWPCT) was derived for each item using Week 16 data from PSO-1, with Patient Global Impression (PGI) of Change and PGI of Severity as anchors. Proportions of MWPCT responders were reported.

Results: In PSSD items at baseline, patients in PSO-1 (placebo, n=150; deucravacitinib, n=303) and PSO-2 (placebo, n=233; deucravacitinib, n=462) had similar mean scores across the 2 treatments, respectively, specifically itch (PSO-1, 6.26 and 6.15; PSO-2, 6.45 and 6.43) and pain (PSO-1, 4.80 and 4.63; PSO-2, 4.70 and 4.46). Significantly greater PSSD improvements with deucravacitinib vs placebo were observed as early as Week 1 and no later than Week 2 for individual PSSD items in both studies (maintained through Week 16). Significantly greater mean improvements were observed with deucravacitinib vs placebo from baseline to Week 16 on itch (PSO-1, −3.57 vs −0.72 [P<0.0001]; PSO-2, −3.67 vs −0.59 [P<0.0001]) and pain (PSO-1, −3.07 vs −0.71 [P<0.0001]; PSO-2, −2.90 vs −0.28 [P<0.0001]). Improvements from baseline with deucravacitinib were maintained through Week 52 in PSO-1 (itch, −4.13 ; pain, −3.50) and Week 24 in PSO-2 (itch, −3.86; pain, −3.00). Responder analyses using an MWPCT ≥2 (derived from PGI anchors) showed that deucravacitinib patients were more likely to improve than placebo patients on itch (hazard ratio [HR; 95% CI]: PSO-1, 2.3 [1.7–3.1]; PSO-2, 3.2 [2.5–4.1]) and pain (HR [95% CI]: PSO-1, 1.9 [1.4–2.4]; PSO-2, 1.9 [1.5–2.3]). Similar findings were observed across all other PSSD items.

Conclusion: Deucravacitinib treatment was associated with rapid and sustained improvement in psoriasis symptoms and signs.

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Abstract N°: 3367

Matching-adjusted indirect comparison of long-term efficacy between deucravacitinib and adalimumab in patients with moderate to severe plaque psoriasis

April W. Armstrong[1], Sang Hee Park[2], Vardhaman Patel[2], Malcolm Hogan[3], Wei-Jhih Wang[4], David Davidson[2], Viktor Chirikov[4]

[1]Keck School of Medicine, University of Southern California,[2]Bristol Myers Squibb, [3]Syneos Health, [4]OPEN Health Evidence & Access

Introduction & Objectives: Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, and other countries for the treatment of adults with moderate to severe plaque psoriasis (PsO) who are candidates for systemic therapy. A previous indirect treatment study showed comparable efficacy between deucravacitinib and first-generation biologics at Week 52. This study compared the long-term efficacy of deucravacitinib with that of adalimumab based on long-term extension (LTE) trials, after adjusting for differences in patient characteristics at baseline.

Materials & Methods: Open-label LTE trials that were feasible for indirect treatment comparison were identified for each treatment (deucravacitinib: POETYK PSO-LTE [NCT04036435]; adalimumab: REVEAL extension [NCT00195676]). Patients who were initially randomized to placebo and switched to continuous active treatment after Week 16 were selected as cohorts owing to the comparability of study design and outcomes of interest. Patients with prior adalimumab were excluded from the deucravacitinib cohort. The primary outcome was ≥75% reduction in Psoriasis Area and Severity Index score (PASI 75) at Week 112 as randomization and secondary outcomes were PASI 75 at Week 52 and ≥90% reduction (PASI 90) at Weeks 52 and 112; missing PASI data was imputed using the last observation carried forward method. Matching-adjusted indirect comparison was conducted where individual patient-level data from POETYK PSO-LTE were reweighted to achieve balance with the summary baseline characteristics in the REVEAL extension trial: age, sex, race, weight, duration of PsO, body surface area affected, prior treatment history, baseline PASI and placebo PASI 75/90 responses at Week 16. Sensitivity analyses explored the effect of adjusting for prior treatment or not as well as history of psoriatic arthritis and patient's overall severity of disease.

Results: Patients from POETYK PSO-LTE (N=329) were on average older, with lower weight, but with more prior systemic treatment exposure, higher baseline PASI score and higher placebo PASI 75/90 response at Week 16 than those in REVEAL (N=345). After adjustment, baseline differences between the 2 trials were mitigated. Results showed adjusted PASI 75 and PASI 90 response rate at Week 112 since randomization was higher for patients who were treated with deucravacitinib compared with those who were treated with adalimumab after 16 weeks of placebo: PASI 75, 67.2% vs 54% (mean difference [95% CI] = 13.2% [4, 22.5]); PASI 90 = 41.3% vs 34% (7.3% [−2, 16.7]). Adjusted PASI 75 and PASI 90 at Week 52 were similar between the 2 cohorts. Results from the sensitivity analyses confirmed the base case findings.

Conclusion: This indirect comparison analysis suggests that patients with moderate to severe PsO with continuous active treatment on deucravacitinib had better long-term response than adalimumab and highlights the therapeutic role of deucravacitinib.

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Abstract N°: 3402

Efficacy of risankizumab after intra-class switching between anti IL-23 antagonists: a multi-center, retrospective, real-life observation

Flavia Manzo Margiotta*[1], Alessandra Michelucci[1], Eugenio Capalbo[2], Federica Ricceri[3], Elia Rosi[4], Susanna Rossari[5], Michela Magnano[5], Imma Savarese[6], Nicola Milanesi[6], Barbara Simoni[7], Marco Romanelli[1], Pietro Rubegni[2], Francesca Prignano[4], Antonella DI Cesare[4], Salvatore Panduri[1], Leonardo Pescitelli[8], Emanuele Trovato[4]

[1]University of Pisa, Department of Dermatology, Pisa, Italy,[2]University of Siena, Department of Medical, Surgical and Neurological Science, Dermatology Section, S. Maria Alle Scotte Hospital, Siena, Italy, [3]San Donato Hospital, Unit of Dermatology, Arezzo, Italy, [4]University of Florence, Section of Dermatology, Department of Health Sciences, Florence, Italy, [5]Versilia Hospital, Unit of Dermatology, Lido di Camaiore, Lucca, Italy,[6]San Jacopo Hospital, Department of Dermatology, Pistoia, Italy, [7]Hospital of Campo di Marte, Unit of Dermatology, Lucca, Italy, [8]San Giuseppe Hospital, Unit of Dermatology, Empoli, Florence, Italy

Introduction & Objectives: Anti interleukin (IL)-23 monoclonal antibodies (mAbs) are identified as an effective first-line treatment for the management of moderate to severe psoriasis, even if primary/secondary ineffectiveness can sometimes require a therapy switch. Data on intra-class switching between anti-IL-17 mAbs have been already presented in literature, but no experience is still available for the anti-IL-23.

Materials & Methods: A retrospective study was conducted in seven hospitals in Tuscany, Italy. Eligible subjects were patients aged ≥18 years affected by moderate to severe psoriasis treated with risankizumab (150 mg subcutaneous injections at week 0, 4, and then every 12 weeks) who did not reach Psoriasis Area Severity Index (PASI) 75 or lost response to any of the available IL-23 blockers. PASI was ossesse, as well as adverse events (AEs). Descriptive statistics was performed on collected data, registering absolute frequencies and percentages for qualitative variables and mean and standard deviation for quantitative ones.

Results: Our population consisted of 7/12 males (58,3%) and 5/12 females (42,7%), with a mean age of 56 ± 8,7 years and a mean PASI at Risankizumab time (T) 0 of 10,7 ± 5,9 weeks. Among the 10/12 patients (83,3%) previously treated with guselkumab, the mean IL-23 treatment before switching to risankizumab was 30,4 weeks, with a mean interval before switch of 29,6 weeks. The minimum observation time was 16 weeks (W), with 5/10 patients (50%) reaching W36, 4/10 patients (40%) W52 and 2/10 patients (20%) W104. Among them, 6/10 patients (60%) achieved PASI90 and 5/10 patients (50%) gained, with a mean **Δ** PASI of 9.8 points. PASI90 was on average reached at W20, while PASI100 at W24. The 2 tildrakizumab-experienced patients were observed for 16 weeks. The mean IL-23 treatment before switching to risankizumab was 18 weeks , with a mean interval before switch of 6 weeks. 1 patient (50%) achieved PASI100 at W16, with a mean **Δ** PASI of 3.4 points. The other patient reached PASI50 at W16; moving from a PASI 4 at W0, the clinical response was considered overall satisfactory. No AEs were reported during the observation time.

Conclusion: Molecular evidence suggest that IL-23 mAb class is able to lower the number of memory T cells while maintaining regulatory T cells. The shutdown of the inflammatory setting and the partial silencing of the memory side could then represent a pathophysiological suggestion of why the lack of response to an anti-IL-23 mAb does not affect the efficacy of a drug of the same class. Our preliminary data showed that switching to risankizumab among IL-23 blockers experienced patients could be a valid clinical choice able to lead to satisfactory results in terms of achieving PASI90 and PASI100 (**Figure 1**). Even if further studies are needed to display wider conclusions, our data represent the first evidence of a real-life intraclass switch among IL-23 inhibitors. For these reasons, we would suggest evaluating an intraclass switching to risankizumab when an IL-23 antagonist does not reach the

expected clinical goals.

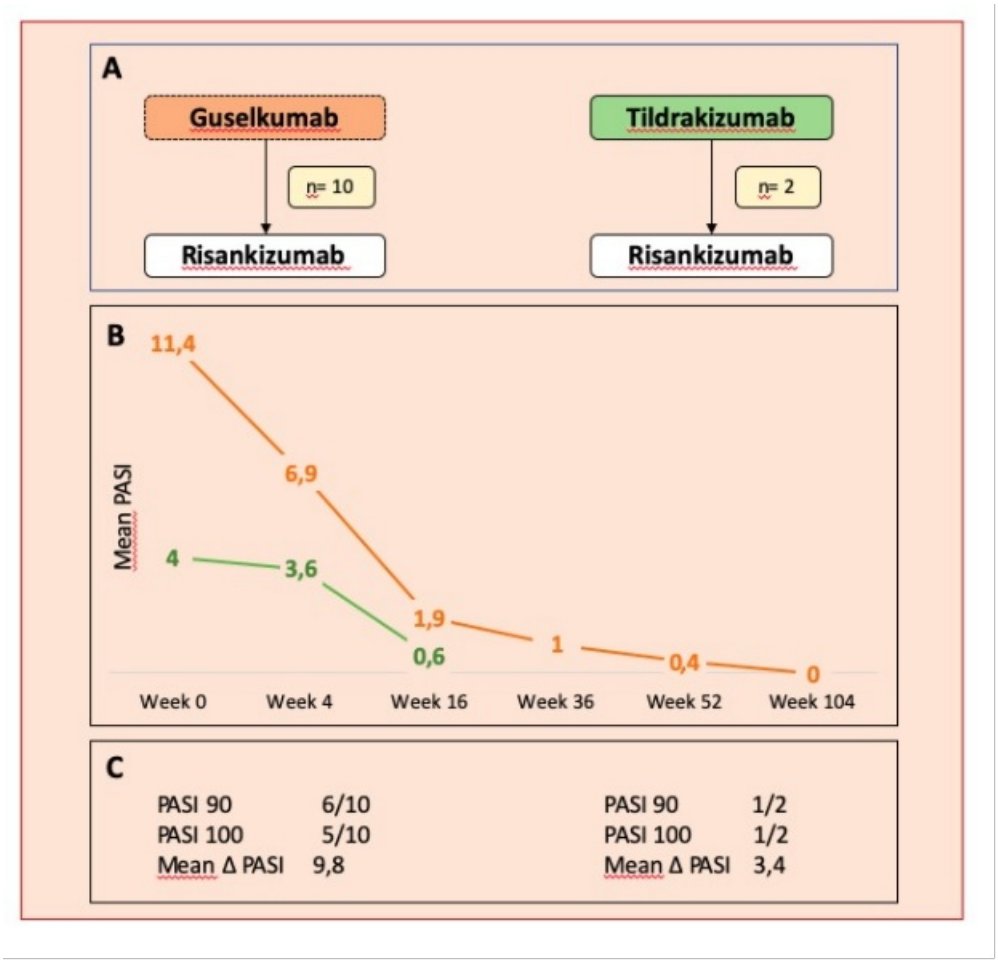

Figure 1. Clinical efficacy of risankizumab after switching from an anti-IL 23 drug. (A) Number of patients switched from guselkumab and tildrakizumab; (B) Curve of mean PASI trend over the observation time (Orange line: guselkumab-experienced patients; Green line tildrakizumab: experienced patients); (C) Achievement of PASI 90, 100 and mean Δ PASI in the two populations. PASI: Psoriasis Area Severity Index

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Abstract N°: 3463

Deucravacitinib, an oral selective tyrosine kinase 2 inhibitor, vs placebo and apremilast in moderate to severe plaque psoriasis: Subgroup analyses of phase 3 studies examining Psoriasis Symptom and Sign Diary and Dermatology Life Quality Index scores

Jashin J. Wu[1], Neal Bhatia[2], Alice B. Gottlieb[3], Yichen Zhong[4], Brandon Becker[4], Jennifer L. Beaumont[5], Tan P. Pham[5], Andrew Napoli[4], Eugene Balagula[4], Subhashis Banerjee[4], Joseph F. Merola[6]

[1]Department of Dermatology, University of Miami Miller School of Medicine,[2]Director of Clinical Dermatology, Therapeutics Clinical Research, [3]Icahn School of Medicine at Mount Sinai, [4]Bristol Myers Squibb, [5]Clinical Outcomes Solutions, [6]Brigham and Women's Hospital, Brigham Dermatology Associates, and Harvard Medical School

Introduction & Objectives: Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy. In the global double-blind, pivotal phase 3 POETYK PSO-1 and PSO-2 trials, patients receiving deucravacitinib reported significantly greater reductions from baseline in Psoriasis Symptom and Sign Diary (PSSD) symptom scores and significantly greater Dermatology Life Quality Index (DLQI) 0/1 response rate at Week 16 vs placebo and apremilast. This analysis further examined the impact of deucravacitinib treatment on PSSD and DLQI scores in various patient subgroups.

Materials & Methods: POETYK PSO-1 and PSO-2 randomized patients with moderate to severe psoriasis 1:2:1 to oral placebo, deucravacitinib 6 mg once daily, or apremilast 30 mg twice daily. Pooled data from the 2 trials were used for this analysis. All patients completed ≥1 PSSD or DLQI item at baseline and at Week 16. Patient subgroups included sex, age, race, body weight, body mass index (BMI), disease duration, prior systemic therapy (nonbiologic or biologic), prior phototherapy, as well as baseline static Physician Global Assessment scores (sPGA), Psoriasis Area and Severity Index scores (PASI), and body surface area (BSA). Logistic regression models were used to examine the odds of achieving patient-reported outcome responses based on meaningful thresholds with deucravacitinib vs placebo and vs apremilast at Week 16.

Results: A total of 1680 patients (420 placebo, 841 deucravacitinib, 419 apremilast) were included. Demographics and clinical characteristics are shown in the Table. Patients treated with deucravacitinib were more likely to achieve a meaningful threshold of 15-point improvement in PSSD total score than placebo in all subgroups (odds ratio [OR] range [95% confidence interval (CI), 13.90 [8.73–22.13] for BSA <20% to 4.93 [2.95–8.22] for disease duration ≤10 y) and vs apremilast for most subgroups (OR range, 3.40 [0.32–36.31] for patients who are Black to 1.25 [0.81–1.92] for patients with no prior systemic therapy; Figure 1). Similarly, patients treated with deucravacitinib were more likely to achieve a meaningful threshold of 4-point improvement in DLQI total score than placebo in all subgroups (OR range, 11.12 [3.62–34.14] for patients ≥65 y to 3.80 [1.62–8.86] for patients who are Asian) and vs apremilast in most subgroups (OR range, 2.66 [95% CI, 1.62–4.38] for patients <40 y to 1.80 [95% CI, 1.20–2.73] for body weight ≥90 kg; Figure 2).

Conclusion: Deucravacitinib demonstrated robust effect and resulted in meaningful changes in PSSD and DLQI scores vs placebo and apremilast across various patient subgroups, including sex, age, race, body weight, BMI, disease duration, PASI score, and other parameters. Some subgroups had small sample sizes and results need to be interpretated with caution.

Table. Baseline patient demographics and clinical characteristics

Parameter	Placebo n = 420	Deucravacitinib 6 mg QD n = 841	Apremilast 30 mg BID n = 419
Age, n (%)			
<40 years	126 (30.0)	269 (32.0)	147 (35.1)
40–<65 years	243 (57.9)	492 (58.5)	235 (56.1)
Sex, female, n (%)	127 (30.2)	277 (32.9)	153 (36.5)
Body weight, n (%)			
≥90 kg	200 (47.6)	401 (47.7)	202 (48.2)
Race, n (%)			
White	360 (85.7)	740 (88.0)	367 (87.6)
Asian	41 (9.8)	82 (9.8)	39 (9.3)
Black	12 (2.9)	10 (1.2)	9 (2.1)
Other	7 (1.7)	9 (1.1)	4 (1.0)
Disease duration, n (%)			
<10 years	118 (28.2)	261 (31.0)	112 (26.7)
≥10 years	301 (71.8)	580 (69.0)	307 (73.3)
sPGA, n (%)			
Moderate	345 (82.1)	664 (79.0)	333 (79.5)
Severe	75 (17.9)	177 (21.0)	86 (20.5)
PASI, n (%)			
≤20	253 (60.2)	474 (56.4)	240 (57.3)
>20	167 (39.8)	367 (43.6)	179 (42.7)
BSA, n (%)			
10%–20%	266 (53.8)	420 (49.9)	199 (47.5)
>20%	194 (46.2)	421 (50.1)	220 (52.5)
Prior treatment, n (%)			
Any systemic therapy	247 (58.8)	474 (56.4)	247 (58.9)
Phototherapy	161 (38.3)	345 (41.0)	165 (39.4)

BID, twice daily; BSA, body surface area; PASI, Psoriasis Severity and Area Index; QD, once daily; sPGA, static Physician's Global Assessment.

Figure 1. Likelihood of improvement in PSSD total score at Week 16 for deucravacitinib vs (A) apremilast and (B) placebo

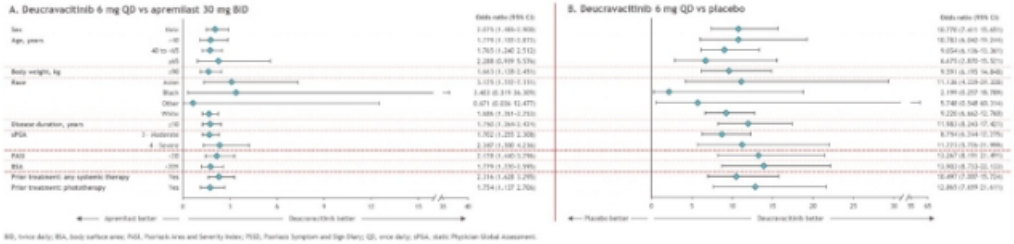
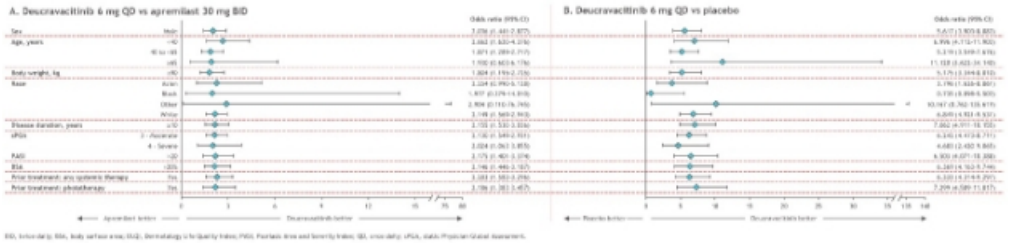


Figure 2. Likelihood of improvement in DLQI scores at Week 16 for deucravacitinib vs (A) apremilast and (B) placebo



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Abstract N°: 3487

Could grade 3 immunotherapy related skin toxicity be successfully managed with dose modification?

Evdoxia Panou*[1], Antonios Tsimpidakis[1], Georgia Skarafigka[1], Emily Tsaroucha[2], Alexander Stratigos[1], Vasiliki Nikolaou[1]

[1]Andreas Syngros Hospital of Venereal & Dermatological Diseases, Dermatology, Αθήνα, Greece,[2]Sotiria Thoracic Diseases Hospital of Athens, Athina, Greece

Introduction & Objectives:

Immune check inhibitors (ICI) have emerged as a highly effective treatment for numerous cancers. Their unique mechanism may lead to immune related adverse effects (irAEs) which can potentially affect any organ. Skin toxicities represent more than one-third of all irAEs and They are observed mainly in the form of a maculopapular rash and pruritus. A wide range of other skin manifestations can also occur including autoimmune skin diseases such as bullous pemphigoid (BP). BP is an uncommon cutaneous irAE, which is difficult to treat. It is one of the few skin toxicities that often results in treatment discontinuation.

We present two cases of immune-induced BP who managed to continue ICI by adjusting the dose.

Materials & Methods:

Prospective review of challenging cutaneous irAEs in skin toxicities clinic, A Sygros Hospital. Herein we present two outstanding cases of BP.

Results:

Case 1. A 79-year-old male patient with a history of bladder cancer was referred to our skin toxicities clinic. He was on treatment with Nivolumab 240mg twice weekly since December 2017. In May 2021 the dose changed to 480mg once a month. Soon after the dose change the patient developed pruritus followed by eczematous lesions and tense blisters. The histology confirmed the diagnosis of bullous pemphigoid. The rash affected 30% of the body surface. He was treated with Prednisolone 20mg/day with a rapid tapering to 5mg/day with complete remission. He restarted ICI with the old scheme (twice weekly) with no irAEs. In January 2022 the scheme changed to 480/month again since he was not acquiescent. The BP reappeared with the same clinical picture as the first time. He was treated with Prednisolone again. (Diagram 1)

Oncologists were advised that the patient should remain at the initial treatment scheme.

Case 2. A 75-year-old female who started Nivolumab for lung cancer in September 2022 (480mg/month) developed grade 3 BP with mucosal involvement after the second infusion. The ICI was interrupted, and the patient was referred to our skin toxicity clinic. Having successfully managed this irAE for the first patient, we discussed with the oncologists the change of the scheme (240mg twice monthly after the BP was completely treated with steroids). The patient had an immediate response to steroids and was restarted in ICI. She did not develop BP when she was receiving 240 mg every two weeks instead of 480 mg monthly and she continued to have a good response. Due to incompliance the scheme changed again to once monthly in February 2023 which resulted to immediate BP manifestation. He went back to previous scheme and the irAE did not reappear whatsoever.

Conclusion:

BP is a rare and severe skin toxicity. Patients must be closely monitored. It may result in interruption or discontinuation of immunotherapy. It seems that to the patients that have a predisposition for severe irAEs by lowering the dose and increasing the frequency we eliminate severe irAE without impact to the overall effectiveness of the ICI. In agreement with the oncologists, we suggest modification of the scheme. This offers a better safety profile with the same much needed efficacy.

The personalized adjustment of drug dose holds the potential for enhancing therapeutic outcomes while simultaneously reducing the incidence of adverse drug events and improving patients' quality of life.

These two cases prove that BP might be a dose dependant drug reaction, and to our knowledge this has not been reported before.

Diagram1. BP response to dose modification.

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Abstract N°: 3502

Dupilumab-induced psoriasiform dermatitis successfully treated with JAK inhibitor

Zi Teng Chai[1], Haur Yueh Lee[1]

[1]Academia, Dermatology, Singapore, Singapore

Introduction:

Dupilumab is increasingly used in atopic dermatitis in both paediatric and adult population. Other than the common side effects due to dupilumab, for example conjunctivitis, there have been reports of dupilumab inducing various psoriasis manifestations, namely plaque psoriasis, palmoplantar psoriasis, generalized pustular psoriasis and nail psoriasis. Little has been described about the treatment options in these patients.

Case report:

We report a 54 year-old Chinese male, with known atopic dermatitis since childhood. His eczema worsened since 6 years ago, and responded well to ciclosporin 3mg/kg/day. In view of prolonged ciclosporin usage, treatment was changed to methotrexate up to 12.5mg/week however was ineffective. He was then started on dupilumab loading dose of 600mg followed by 300mg every fortnightly. He reported improvement one month into dupilumab treatment. On review 2 months later, he reported worsening of rashes along with increasing POEM, EASI and DLQI scoring. Examination showed new erythematous scaly plaques over palms and soles, scalp and extensor elbows. Skin biopsy showed spongiotic and psoriasiform dermatitis with dermal eosinophils, with confluent parakeratosis, psoriasiform hyperplasia with suprapapillary thinning and focal loss of granular layer. He was treated for psoriasiform dermatitis. Dupilumab was stopped, and he was started on upadacitinib 15mg OM. On review 2 weeks after upadacitinib, he reported significant improvement of palms and soles, as well as truncal rashes. EASI score improved from 12.8 to 3.3, along with improvement in POEM and DLQI. He remained stable on subsequent reviews with no flare of psoriasis or eczema.

Discussion:

Dupilumab-induced psoriasis or psoriasiform dermatitis have been increasingly reported. Dupilumab blocks the Th2 pathway and this could induce an immune deviation, leading to overactivation of the Th17/IL-23/TNF-pathways and/or type I IFN pathway, inducing psoriasiform lesions. Park et al reported mean latency period from dupilumab initiation to psoriasis onset of 3.7 months, and only 40% had complete resolution of psoriasis following treatment or dupilumab discontinuation. Majority had varying degrees of improvement, no improvement or recurrent disease. Jaulent et al. suggested that clinical improvement upon discontinuation of dupilumab was rare and systemic treatment is often insufficient. In this retrospective study of 5 patients, the patient who was treated with upadacitinib was the only cleared.

Conclusion:

Our case report supports and highlights successful treatment of dupilumab-induced psoriasiform dermatitis using upadacitinib, a JAK-inhibitor. Dermatologists should be cautious when initiating dupilumab in patients with predilection to develop psoriasis, for example in those with family history of psoriasis.

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Abstract N°: 3519

Deucravacitinib, an oral, allosteric, selective tyrosine kinase 2 inhibitor, in patients with plaque psoriasis who screened positive for psoriatic arthritis in POETYK PSO-1 and PSO-2: Effect on joint pain and peripheral joint disease vs placebo and apremilast

Joseph F. Merola[1], Philip Mease[2], April W. Armstrong[3], Vibeke Strand[4], Thomas Lehman[5], Jiyoon Choi[5], Brandon Becker[5], Yichen Zhong[5], Matthew Colombo[5], Diamant Thaçi[6], Androniki Bili[5], Alice B. Gottlieb[7]

[1]Brigham and Women's Hospital, Harvard Medical School, [2]Swedish Medical Center/Providence St. Joseph Health and University of Washington School of Medicine, [3]Keck School of Medicine, University of Southern California, [4]Stanford University, [5]Bristol Myers Squibb, [6]Comprehensive Center for Inflammation Medicine, University of Lubeck, [7]Icahn School of Medicine at Mount Sinai

Introduction & Objectives: For patients with psoriasis, psoriatic arthritis is an important comorbid condition, and as many as 41% may be undiagnosed. It is essential that treatments relieve both dermatologic and joint symptoms. Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy. In the pivotal phase 3 randomized, controlled POETYK PSO-1 and PSO-2 trials, significantly greater proportions of patients receiving deucravacitinib achieved 75% improvement from baseline in Psoriasis Area and Severity Index scores and static Physician's Global Assessment scores of 0 or 1 at Week 16 vs placebo or apremilast. This analysis compared the effect of deucravacitinib vs placebo and vs apremilast on peripheral joint disease, joint pain, and health-related quality of life (HRQoL) using the 36-item Short Form (SF-36) physical component summary (PCS) score at Weeks 16 and 24 in patients from POETYK PSO-1 and PSO-2 who self-reported joint symptoms.

Materials & Methods: POETYK PSO-1 and PSO-2 randomized patients with moderate to severe psoriasis 1:2:1 to placebo, deucravacitinib 6 mg once daily, or apremilast 30 mg twice daily. The self-administered Psoriatic Arthritis Screening and Evaluation (PASE) questionnaire (numeric rating scale; score of ≥47 indicates psoriatic arthritis [PASE positive]) was completed by patients with peripheral joint complaints at baseline. Peripheral joint pain and joint disease were measured using a visual analog scale (VAS; range, 0–100). All patients completed the SF-36 (PCS score range, 0–50). Higher scores indicate worse disease burden on the VAS measures and better HRQoL by SF-36 PCS.

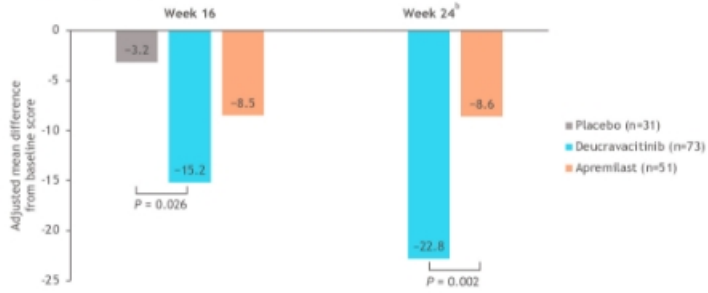
Results: This pooled analysis included 185 PASE-positive patients (11% of 1686 patients in the combined POETYK PSO-1 and PSO-2 trials). The improvement, assessed by mean adjusted change from baseline (CFB), was greater in patients treated with deucravacitinib vs placebo at Week 16 for joint pain VAS (−15.2 vs −3.2; 95% confidence interval [CI] for difference, −22.5 to −1.4), joint disease VAS (−17.4 vs −3.8; 95% CI, −23.8 to −3.4), and SF-36 PCS scores (4.4 vs 0.9; 95% CI, 0.6 to 6.4). Adjusted mean CFBs were greater in patients treated with deucravacitinib at Week 24 vs apremilast for joint pain VAS (−22.8 vs −8.6; 95% CI, −23.1 to −5.3) and joint disease VAS (−19.6 vs −8.8; 95% CI, −19.8 to −1.9) scores, and similar for SF-36 PCS scores (5.8 vs 3.7; 95% CI, −0.4 to 4.8; Figures 1–3).

Conclusion: PASE-positive patients in POETYK PSO-1 and PSO-2 treated with deucravacitinib reported greater improvements in the impact of joint disease and joint pain vs apremilast and placebo, and in SF-36 PCS scores vs those receiving placebo. The magnitude of effect among deucravacitinib-treated patients appeared to continue to improve through the 24-week active-controlled period.

Figure 1. Change from baseline in joint disease activity VAS score,[a] POETYK PSO-1 and PSO-2 pooled

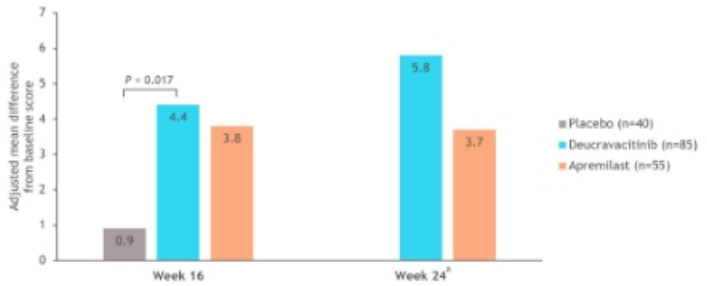
[a]Among patients with scores ≥30.
[b]At Week 16 of each trial, patients receiving placebo crossed over to deucravacitinib. These patients are not represented in the Week 24 analysis.
VAS, visual analog scale.

Figure 2. Change from baseline in joint pain VAS score,[a] POETYK PSO-1 and PSO-2 pooled



[a]Among patients with scores ≥30.
[b]At Week 16 of each trial, patients receiving placebo crossed over to deucravacitinib. These patients are not represented in the Week 24 analysis.
VAS, visual analog scale.

Figure 3. Change from baseline in SF-36 PCS score, POETYK PSO-1 and PSO-2 pooled



[b]At Week 16 of each trial, patients receiving placebo crossed over to deucravacitinib. These patients are not represented in the Week 24 analysis.
PCS, physical component summary; SF-36, 36-Item Short Form health survey.

EA DV CONGRESS
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EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 3522

Deucravacitinib improves symptoms and quality of life in patients with psoriasis: Patient-reported outcomes at 2 years in the POETYK long-term extension study

Steven Feldman[1], Christopher Griffiths[2], Leon H Kircik[3], Yichen Zhong[4], Brandon Becker[4], Subhashis Banerjee[4], Renata M. Kisa[4], Eugene Balagula[4], Jennifer L. Beaumont[5], Michael Derosa[5], April W. Armstrong[6]

[1]Wake Forest University School of Medicine,[2]University of Manchester, [3]Icahn School of Medicine at Mount Sinai, [4]Bristol Myers Squibb, [5]Clinical Outcomes Solutions, [6]Keck School of Medicine, University of Southern California

Introduction & Objectives: Deucravacitinib, an oral, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, and other countries for the treatment of moderate-to-severe plaque psoriasis in adults who are candidates for systemic therapy. In the global phase 3 POETYK PSO-1 and PSO-2 trials, deucravacitinib was more effective than placebo or apremilast in improving both clinician-assessed and patient-reported outcomes (PROs). We assessed the long-term impact of treatment on two PRO measures, the Psoriasis Symptoms and Signs Diary (PSSD; score range 0–100) and the Dermatology Life Quality Index (DLQI; score range 0–30), in patients who enrolled in the POETYK long-term extension (LTE) after completing either parent study.

Materials & Methods: POETYK PSO-1/PSO-2 randomized patients 1:2:1 to oral placebo, deucravacitinib 6 mg once daily (QD), or 30 mg apremilast twice daily; placebo patients crossed over to deucravacitinib at Week 16. At Week 52, patients enrolled in the LTE began receiving open-label deucravacitinib 6 mg QD. Patients who completed at least 1 PSSD or DLQI item at both baseline of the parent trials and at any time point during the LTE through Week 100 were included in this analysis. Demographics and baseline clinical characteristics were described. The proportion of patients recording DLQI scores of 0 or 1 (DLQI 0/1) was as observed. In addition to assessing observed PSSD and DLQI score change from baseline (CFB) in the parent study, CFB was estimated using a mixed model for repeated measures (MMRM); the patient was included as a random effect, with baseline score, assessment, and stratification factors as fixed effects. Time as categorical and continuous linear effects were examined in separate models. Results are reported separately for the population of patients who were randomized to deucravacitinib from Day 1 of POETYK PSO-1 (Cohort 1) and for the larger population of patients who entered the LTE study (Cohort 2).

Results: Cohort 1 included 259 patients, of whom 240 were included in the PSSD analysis and 258 in the DLQI analysis. Cohort 2 included 1192 patients, of whom 1122 were included in the PSSD analysis and 1180 in the DLQI analysis. Baseline patient characteristics are described in Table 1. In Cohort 1, DLQI 0/1 was observed in 54.7% of patients at Week 52 and in 51.9% of patients at Week 100 (Figure 1). In Cohort 2, DLQI 0/1 was observed in 43.0% of patients at Week 52 and in 52.6% of patients at Week 100 (Figure 2). Observed and modeled score CFB in each measure shows maintenance of improvements from Week 52 through Week 100 in each cohort, and similar mean CFB between the cohorts at Week 100 (Figures 3–6).

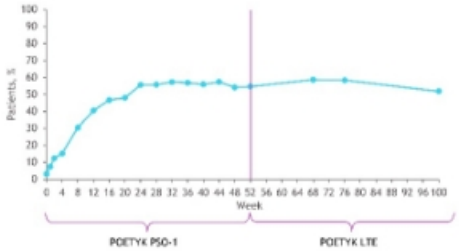
Conclusion: Treatment with deucravacitinib improves and maintains patients' psoriasis symptoms and quality of life through at least 100 weeks.

Table 1. Demographics and baseline clinical characteristics in patients randomized to deucravacitinib in POETYK PSO-1 and enrolled in the LTE study (Cohort 1) and in all patients who entered the LTE (Cohort 2)

Parameter	Cohort 1 (N=259)	Cohort 2 (N=1192)
Age, n (%), years		
<40	84 (32.4)	367 (30.8)
40–65	154 (59.5)	711 (59.6)
≥65	21 (8.1)	114 (9.6)
Body weight, n (%), kg		
≥90	97 (37.5)	547 (45.9)
Sex, n (%)		
Female	84 (32.4)	380 (31.9)
Race, n (%)		
White	205 (79.2)	1033 (86.7)
Asian	51 (19.7)	128 (10.7)
Black	1 (0.4)	18 (1.5)
Other	2 (0.8)	13 (1.1)
Age at disease onset		
Mean (SD)	29.8 (15.2)	28.6 (14.7)
Median (range)	27 (18–40)	26 (17–39)
Disease duration, years		
≥10	163 (62.9)	848 (71.1)
PASI, n (%)		
>20	124 (47.9)	505 (42.4)
sPGA, n (%)		
3 – Moderate	202 (78.0)	956 (80.2)
4 – Severe	57 (22.0)	236 (19.8)
BSA, n (%)		
>20%	137 (52.9)	595 (49.9)
PSSD total score, n	240	1122
Mean (SD)	53.2 (22.9)	54.1 (23.2)
DLQI score, n	258	1180
Mean (SD)	12.3 (6.6)	12.1 (6.6)

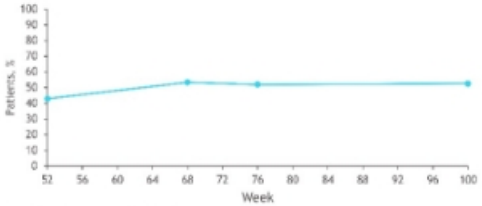
BSA, body surface area; DLQI, Dermatology Life Quality Index; LTE, long-term extension; PASI, Psoriasis Area and Severity Index; PSSD, Psoriasis Symptoms and Signs Diary; SD, standard deviation; sPGA, static Physician Global Assessment.

Figure 1. Proportion of patients recording DLQI scores of 0 or 1, as observed in Cohort 1,[a] n = 258



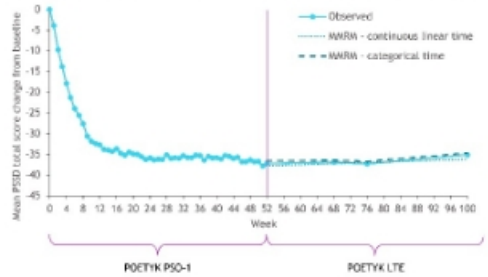
[a]Patients randomized to deucravacitinib on Day 1 of POETYK PSO-1 who entered the LTE study.
DLQI, Dermatology Life Quality Index; LTE, long-term extension.

Figure 2. Proportion of patients recording DLQI scores of 0 or 1, as observed in Cohort 2,[a] n = 1180



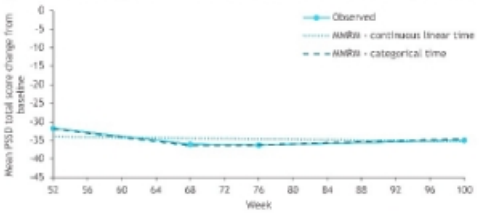
[a]All patients who entered the LTE study.
DLQI, Dermatology Life Quality Index; LTE, long-term extension.

Figure 3. Mean change from baseline in PSSD total scores for Cohort 1,[a] n = 240



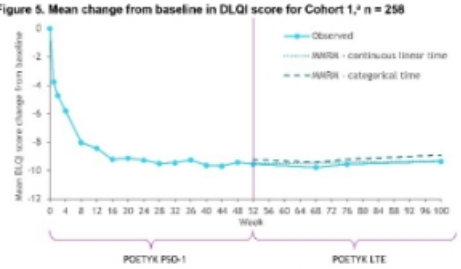
[a]Patients randomized to deucravacitinib on Day 1 of POETYK PSO-1 who entered the LTE study.
LTE, long-term extension; MMRM, mixed model for repeated measures; PSSD, Psoriasis Symptoms and Signs Diary.

Figure 4. Mean change from baseline in PSSD total scores for Cohort 2,[a] n = 1122



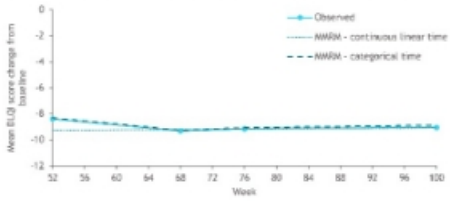
[a]All patients who entered the LTE study.
LTE, long-term extension; MMRM, mixed model for repeated measures; PSSD, Psoriasis Symptoms and Signs Diary.

Figure 5. Mean change from baseline in DLQI score for Cohort 1,[a] n = 258



[a]Patients randomized to deucravacitinib on Day 1 of POETYK PSO-1 who entered the LTE study.
DLQI, Dermatology Life Quality Index; LTE, long-term extension; MMRM, mixed model for repeated measures.

Figure 6. Mean change from baseline in DLQI score for Cohort 2,[a] n=1180



[a]All patients who entered the LTE study.
DLQI, Dermatology Life Quality Index; LTE, long-term extension; MMRM, mixed model for repeated measures.

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Abstract N°: 3524

A case study of biologic treatment failures for severe psoriasis

Jaqueline Tomlinson[1], Gemma Whicker[2]

[1]Cambridge University NHS Foundation Trust, Dermatology, Cambirdge, United Kingdom, [2]Cambridge University NHS Foundation Trust, Dermatology, Cambridge, United Kingdom

Introduction & Objectives:

A case study looking at multiply treatment failures with different biological therapies for the treatment of psoriasis from 2014 - 2023 that impacts on quality of life. With treatment options becoming limited can this case of recalcitrant psoriasis be tamed with a 6th line biological therapy.

Materials & Methods:

Case Presentation: 30 year old female with chronic plaque psoriasis, age at diagnosis 13 years old. Referred for a second opinion when PUVA and systemic treatments failed in 2014. Past medical history of psoriatic arthritis, diagnosed with juvenile arthritis (later PsA) aged 13 years, asthma, depression. Weight 2014 74kg. PASI in 2014 26.1, DLQI in 2014 21.

Treatments – PUVA, Ciclosporin, Methotrexate, Topical corticoid steroids, Adalimumab, Ustekinumab, Secukinumab, Guselkumab, Tildtrakizumab, Bimekizumab

Due to the amount of inadequate responses and treatment failures an individual funding request was submitted for NHS funding and approved.

Conclusion:

Bimekizumab was clinically reviewed at week 16 and for the first time the patient had almost clear skin PASI 0.9, since the age of diagnosis.

The authors declares no conflicts of interest in relation to this work

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Abstract N°: 3531

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor, in Asian patients with moderate to severe psoriasis: maintenance of improvements in patient-reported outcomes

Jianzhong Zhang[1], Yangfeng Ding[2], Ping Wang[3], Lingfeng LI[4], Weili Pan[5], Yan Lu[6], Hao Cheng[7], Xian Jiang[8], Ji Chen Ho[9], Shuping Guo[10], Seong Jung Seo[11], Linda Stein Gold[12], Andrew Blauvelt[13], Joe Zhuo[14], Yichen Zhong[14], Brandon Becker[14], Leona Liu[14], Renata M. Kisa[14], Subhashis Banerjee[14], Diamant Thaçi[15]

[1]Peking University People's Hospital, [2]Shanghai Skin Disease Hospital, [3]The First Affiliated Hospital of Chongqing Medical University, [4]Beijing Friendship Hospital, [5]Zhejiang Provincial People's Hospital, [6]Jiangsu Province Hospital, [7]Sir Run Shaw Hospital, Zhejiang University School of Medicine,[8]West China Hospital, Sichuan University, [9]Kaohsiung Chang Gung Memorial Hospital, [10]First Hospital of Shanxi Medical University,[11]Chung-Ang University Hospital, [12]Henry Ford Health System, [13]Oregon Medical Research Center, [14]Bristol Myers Squibb, [15]University of Lübeck

Introduction & Objectives: Psoriasis is a systemic disease, and treatments should address both clinical and patient-reported outcomes (PROs). Deucravacitinib demonstrated efficacy in 2 global psoriasis studies. Deucravacitinib is approved in the US, EU, Japan, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy. This study's goal was to evaluate maintenance of improvements in PROs in patients with moderate to severe plaque psoriasis who continued deucravacitinib 6 mg once daily for 52 weeks vs those who crossed over from placebo to deucravacitinib at Week 16 in the POETYK PSO-3 study.

Materials & Methods: This multicenter, randomized, double-blind study was conducted in mainland China, Taiwan, and South Korea. Outcome measures were Dermatology Life Quality Index (DLQI) and Psoriasis Symptoms and Signs Diary (PSSD) total score.

Results: In total, 220 patients were randomized (deucravacitinib, n=146; placebo, n=74). Mean (SD) baseline DLQIs were 12.8 (7.78) (deucravacitinib) and 11.5 (7.77) (placebo); baseline PSSD total scores were 55.2 (22.32) (deucravacitinib) and 51.4 (23.48) (placebo). Deucravacitinib patients experienced greater improvement in DLQI (mean [SD] change from baseline, −8.2 [6.42] [P<0.0001]) vs placebo (−1.8 [7.06]) at Week 16, with improvement maintained through Week 52 (deucravacitinib, −9.0 [6.99]; placebo-to-deucravacitinib, −7.5 [8.50]). Among patients with baseline DLQI ≥2, more deucravacitinib patients achieved DLQI 0/1 at Week 16 vs placebo (36.4% vs 11.6%, respectively). At Week 52, 44.7% of deucravacitinib and 43.5% of placebo-to-deucravacitinib patients achieved DLQI 0/1. Deucravacitinib patients experienced greater mean (SD) change from baseline in PSSD score at Week 16 vs placebo (−30.9 [22.21] [P<0.001] vs −2.3 [24.42], respectively); this improvement was maintained through Week 52 (deucravacitinib, −36.4 [23.37]; placebo-to-deucravacitinib, −37.2 [27.81]). At Weeks 16 and 52, 3.5% and 9.8% of deucravacitinib patients achieved a PSSD score of 0 vs 0.0% and 11.0%, respectively, for patients who crossed over to deucravacitinib at Week 16.

Conclusion: Deucravacitinib was associated with improvements in DLQI and PSSD at Week 16 that were maintained through Week 52. Patients who crossed over from placebo to deucravacitinib at Week 16 experienced similar improvements by Week 52.

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Abstract N°: 3536

Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 inhibitor, improves outcomes in plaque, generalized pustular, and erythrodermic psoriasis in Japan: results from the POETYK PSO-4 study

Yayoi Tada[1], April W. Armstrong[2], Shinichi Imafuku[3], Yukari Okubo[4], Akimichi Morita[5], Yichen Zhong[6], Joe Zhuo[6], Brandon Becker[6], Andrew Napoli[6], Subhashis Banerjee[6], Mamitaro Ohtsuki[7]

[1]Teikyo University School of Medicine, [2]Keck School of Medicine, University of Southern California,[3]Fukuoka University Hospital, Department of Dermatology, [4]Tokyo Medical University, [5]Nagoya City University, Geriatric and Environmental Dermatology, [6]Bristol Myers Squibb, [7]Jichi Medical University, Department of Dermatology

Introduction & Objectives: Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 inhibitor, demonstrated efficacy, as assessed by Psoriasis Area Severity Index, static Physician's Global Assessment, and other measures, in moderate to severe plaque psoriasis (PP) in 2 placebo- and apremilast-controlled global phase 3 studies and in moderate to severe PP, generalized pustular psoriasis (GPP), and erythrodermic psoriasis (EP) in a multicenter, open-label, single-arm study conducted in Japan (POETYK PSO-4). Deucravacitinib is approved in the US, EU, Japan, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy. The goal of this study was to evaluate improvement in patient-reported outcomes in patients treated with deucravacitinib 6 mg once daily in POETYK PSO-4.

Materials & Methods: Outcome measures evaluated were Dermatology Life Quality Index (DLQI) and Psoriasis Symptoms and Signs Diary (PSSD) score changes from baseline and the proportion of patients achieving DLQI 0/1 at Week 52.

Results: In total, 74 patients (PP, n=63; GPP, n=3; EP, n=8) were treated. Mean (SD) baseline DLQIs were 9.1 (4.47) (PP), 9.7 (6.43) (GPP), and 7.5 (5.56) (EP); mean (SD) baseline PSSD scores were 43.9 (20.80) (PP), 51.9 (10.17) (GPP), and 41.4 (21.89) (EP). Patients experienced improvement in DLQI at Week 16, with mean (SD) changes from baseline of −7.0 (4.10) (PP), −8.0 (6.08) (GPP), and −6.6 (5.56) (EP), and improvement was maintained with mean (SD) changes from baseline at Week 52 of −7.6 (4.52) (PP), −8.3 (7.51) (GPP), and −7.8 (5.67) (EP). Among patients with baseline DLQIs ≥2, proportions who achieved DLQI 0/1 at Week 16 were 49.2% (PP), 33.3% (GPP), and 57.1% (EP); proportions increased at Week 52: 66.1% (PP), 66.7% (GPP), and 66.7% (EP). Patients also achieved improvements in total PSSD score, with mean (SD) changes from baseline of −28.9 (19.27) (PP), −24.6 (7.25) (GPP), and −24.4 (27.86) (EP) at Week 16 and −35.3 (21.43) (PP), −19.6 (0.88) (GPP), and −29.4 (31.78) (EP) at Week 52.

Conclusion: Patients with psoriasis in Japan receiving deucravacitinib experienced durable improvements in patient-reported outcomes.

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Abstract N°: 3539

Indirect comparison of deucravacitinib and other systemic treatments for moderate to severe plaque psoriasis in Asian populations: A systematic literature review and network meta-analysis

Tsen-Fang Tsai[1], Yayoi Tada[2], Camy Kung[3], Yichen Zhong[3], Allie Cichewicz[4], Katarzyna Borkowska[5], Tracy Westley[4], Renata M. Kisa[3], Yu-Huei Huang[6], Xing-Hua Gao[7], Seong-Jin Jo[8], April W. Armstrong[9]

[1]National Taiwan Hospital, [2]Teikyo University School of Medicine, [3]Bristol Myers Squibb, [4]Evidera, Evidence Synthesis, Modeling and Communication, [5]PPD Poland, Evidence Synthesis, Modeling and Communication, [6]Chung Gung Memorial Hospital, [7]First Hospital of China Medical University,[8]Seoul National University College of Medicine, [9]Keck School of Medicine, University of Southern California

Introduction & Objectives: Many systemic therapies are available for patients with plaque psoriasis (PsO). Deucravacitinib, an oral, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, Japan, and other countries for the treatment of moderate-to-severe plaque PsO in adults who are candidates for systemic therapy. The goal of this study was to determine, through a systematic literature review and network meta-analysis (NMA), the comparative effectiveness of deucravacitinib relative to other systemic treatments for moderate to severe plaque PsO in Asian populations.

Materials & Methods: Electronic databases (including Medline and Embase) were searched for randomized controlled trials (RCTs) of biologic and nonbiologic systemic therapies. Binomial analyses were performed under random effects and with adjustment for baseline placebo risk to estimate Psoriasis Area and Severity Index 75% (PASI 75) response rates at Weeks 10-16.

Results: Of 7847 records identified, 20 RCTs were included in the NMA. The median posterior estimate of PASI 75 response for deucravacitinib was 68% (95% credible interval [CrI], 52%82%) in the Asian population, which was higher than that for placebo (7%; 95% CrI, 6%-9%) and apremilast (26%; 95% CrI, 14%-43%). The CrIs for estimated PASI 75 of deucravacitinib overlapped with those of adalimumab (71%; 95% CrI, 57%-82%), certolizumab pegol 200 mg (74%; 95% CrI, 46%-92%) or 400 mg (88%; 95% CrI, 67%-97%), infliximab (89%; 95% CrI, 66%-99%), ustekinumab 45 mg or 90 mg (80%; 95% CrI, 25%-97%), and tildrakizumab 100 mg or 200 mg (58%; 95% CrI, 31%-86%).

Conclusion: Deucravacitinib demonstrated robust efficacy in Asian populations, and it provides a convenient oral therapy option for patients with moderate to severe PsO, with efficacy similar to that of many biologic therapies.

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Abstract N°: 3546

Optimizing the treatment sequence: the cumulative clinical benefit of treatment initiation with deucravacitinib versus apremilast over 52 weeks in patients with moderate to severe plaque psoriasis from the POETYK PSO-1 trial

April W. Armstrong[1], Sang Hee Park[2], Viktor Chirikov[3], Pierre Nicolas[2], Wei-Jhih Wang[3], Matthew Colombo[2], Vardhaman Patel[2]

[1]Keck School of Medicine, University of Southern California,[2]Bristol Myers Squibb, [3]OPEN Health Evidence & Access

Introduction & Objectives: Post hoc analyses of the POETYK PSO-1 trial demonstrated that patients with moderate to severe plaque psoriasis who showed an inadequate response (<50% reduction in Psoriasis Area and Severity Index score [PASI 50]) to apremilast at Week 24 had clinical improvement and strong responses by Week 52 after switching to deucravacitinib. Deucravacitinib is approved in the US, EU, and other countries for the treatment of adults with moderate-to-severe plaque psoriasis who are candidates for systemic therapy. As different treatment pathways offer varying levels of benefit over time, there is a need to identify those that provide greater benefit. The goal of this analysis was to assess the cumulative clinical benefit over 52 weeks in two distinct patient groups: those who initiated deucravacitinib treatment and those who initiated apremilast and either continued through 52 weeks or switched to deucravacitinib at Week 24 after a lack of response.

Materials & Methods: Patient-level data from the POETYK PSO-1 trial were used to assess the cumulative clinical benefit for deucravacitinib and apremilast initiators from randomization to Week 52. The cumulative benefit was calculated using the total area under the curve (AUC) of the proportion of responders for PASI 75 and static Physicians Global Assessment 0 or 1 (sPGA 0/1), measured in percent response times weeks (% × weeks). The results were standardized as a percentage of the maximum possible benefit of 5200 (% × weeks) (ie, 52 weeks of 100% response in each week). A regression model was used to adjust for baseline characteristics. Nonresponder imputation was used for missing responses as per protocol definition.

Results: Among apremilast initiators (n=168), 87 patients continued apremilast and 54 crossed over to deucravacitinib after Week 24 due to lack of response (<PASI 50). At Week 52, deucravacitinib initiators (n=332) experienced greater cumulative benefit than apremilast initiators for PASI 75 (2979 vs 1988 [% × weeks]; difference in benefit [95% CI] = 991 [683-1298]) and sPGA 0/1 (2613 vs 1657 [% × weeks]; difference = 956 [642-1269]). When standardized over 52 weeks, results translated to a greater average cumulative response for deucravacitinib users than for apremilast initiators (57.3% vs 38.2% [PASI 75], 50.2% vs 31.9% [sPGA 0/1], respectively).

Conclusion: Treatment initiation with deucravacitinib resulted in greater clinical benefits over 52 weeks compared with initiation with apremilast. Treatment sequences that optimize patient outcomes should be considered when initiating treatment.

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Abstract N°: 3727

Psoriasis rupioid induced by Pembrolizumab

Luca Rubino[1], Caterina Foti[1], Francesca Ambrogio[1]

[1]Azienda Ospedaliero Universitaria Consorziale Policlinico, Bari, Italy

Rupioid psoriasis induced by Pembrolizumab

Luca Rubino, Caterina Foti, Francesca Ambrogio

Section of Dermatology and Venereology, Department of Precision and Regenerative Medicine and Ionian Area (DiMePRe-J), University of Bari "Aldo Moro", 70124 Bari, Italy.

Introduction & Objectives: :

Immune checkpoint inhibitors targeting antigen 4 associated with cytotoxic T cells (CTLA-4), the programmed death-1 receptor (PD-1) and the programmed death-1 receptor and its ligand (PD-L1) have increased the survival of patients with certain types of neoplasms. Because of their mechanism of action, these drugs are associated with a unique toxicity profile with a broad clinical spectrum of immuno-related adverse events (irAEs). In general, immunotherapy's skin toxicity is among the most common irAEs.

We report the case of a 77-year-old man with poorly differentiated metastatic pulmonary adenocarcinoma undergoing therapy with Cisplatin - Pemetrexed - Pembrolizumab. After the first course of treatment, the patient presented an erythemato-desquamative rash, with purpuric macule surmounted by scales with a ruphyoid appearance. So our diagnostic suspicion is rupioid psoriasis induced by immunotherapy.

Materials & Methods:

To better understand the disease and to meet the distinguishing histopathological marks of Psoriasis, it was performed a skin biopsy on the patient's back. It entailed the use of local anesthetics and punch biopsy 6mm blade to obtain a skin sample from the patient sole.

Results:

The result of the skin biopsy highlighted histopathological aspects of multi-layered peeling paracheratosis, psoriasiform epidermal hyperplasia with fusion of the contiguous epidermal ridges and tortuosity of the vessels, compatible with our diagnostic hypothesis.

In literature, only one other case of Pembrolizumab-induced ruphyoid psoriasis has been described. In agreement with oncologists, we decided to discontinue Pembrolizumab for 4 weeks until lesion improvement and to start therapy with Apremilast (an oral small molecule PDE4 inhibitor) associated with systemic methylprednisolone. The immunosuppressive therapy with methylprednisolone was started with a dose of 16 mg/day with subsequent reduction until discontinuation in a few weeks.

After 3 months of treatment with Apremilast the patient had good general clinical conditions with complete remission of psoriasis, so he resumed Pembrolizumab cycles without exacerbation of the clinical picture. In the fourth month of therapy with Apremilast, the patient stopped his own therapy for psoriasis despite continuing treatment with Pembrolizumab with subsequent reappearance of infiltrated erythemato desquamative lesions. After subsequent reintroduction of Apremilast, a new remission of the clinical picture occurred despite the

absence of interruption of Pembrolizumab.

Conclusion:

As far as we know, this is the second case of ruphyoid psoriasis induced by immunotherapy with Pembrolizumab and our experience demonstrates good efficacy and safety of Apremilast in these cases.

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Abstract N°: 3801

the use of placental extract hydrolysates in the treatment of patients with lichen planus

Avaz Inoyatov[1], Mumin Jabbarov[1], Akram Rakhmatov*[1]

[1]Republican Specialized Scientific and Practical Medical Center of Dermatovenereology and Cosmetology of the Ministry of Health, Republic of Uzbekistan

Introduction & Objectives: Lichen planus (LP) is a serious problem in dermatology in terms of diagnosis (increase in the incidence of atypical forms of dermatosis) and treatment, due to the lack of effective therapeutic agents. Substantiating and introducing of the use of placental extract hydrolysates in the treatment of patients with lichen planus is alleged to be investigated.

Materials & Methods: 32 patients with LP were under observation, among which the classical form of dermatosis was found in 20 and atypical (verrucous, atrophic, etc.) in 12 patients. Studies of C-reactive protein (CRP and hs-CRP) were carried out using the Finecare quantitative test, indicators of cellular immunity (flow chromatography method) and ELISA determined the levels of pro- (IL-8, TNF-α) and anti-inflammatory (IL-4) cytokines in the dynamics of the therapy. The preparation containing hydrolysates of the placenta extract was injected intramuscularly at 2 ml every 3 days; patients received 10 injections per course of treatment.

Results: The use of a preparation containing placental extract hydrolysates contributed to a decrease in subjective sensations and a partial regression of papular rashes, both on the skin and on the oral mucosa, more pronounced in the classical than in the atypical course of dermatosis. The anti-inflammatory effect of the drug was confirmed by a significant ($p<0.001$) decrease in C-reactive protein, especially hs-CRP. Hydrolysates of the placenta extract had an immunomodulatory effect in patients with LP, which was confirmed by the parameters of the immune and cytokine status studied in dynamics.

Conclusion: Thus, lichen planus differs among other dermatoses in severe torpidity in relation to ongoing therapy, an increased frequency of damage to the oral mucosa in the form of erosive or erosive-ulcerative formations, and therefore the importance of drugs used in the treatment of this dermatosis increases. The multicomponent nature of this drug makes it possible to provide immunomodulatory, anti-inflammatory and other effects that underlie the pathogenesis of lichen planus.

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Abstract N°: 3861

Are interleukin 17 and interleukin 23 inhibitors associated with malignancies? – Insights from an international population-based study

Khalaf Kridin[1], Ralf Ludwig[2]

[1]Galillee Medical Center, Unit of Dermatology, Nahariya, Israel,[2]University of Lubeck, Lubeck Institute of Experimental Dermatology, Lübeck, Germany

Introduction & Objectives:

Cancer risk after long-term exposure to interleukin (IL)-23 inhibitors (IL-23i) and IL-17 inhibitors (IL-17i) remains to be delineated. We aimed to evaluate the risk of malignancies in patients with psoriasis treated with IL-23i and IL-17i relative to those prescribed tumor necrosis factor inhibitors (TNFi) during the first 5 years following drug initiation.

Materials & Methods:

A global population-based cohort study included two distinct analyses comparing patients with psoriasis under different therapeutic modalities; (i) new users of IL-17i (n=15,331) versus TNFi (n=15,331) and (ii) new users of IL-23i (n=5,832) versus TNFi (n=5,832).

Results:

Patients prescribed IL-17i experienced a decreased risk of non-Hodgkin lymphoma (NHL; HR, 0.58; 95% CI, 0.40-0.82; P=0.002), colorectal cancer (HR, 0.68; 95% CI, 0.49-0.95; P=0.024), hepatobiliary cancer (HR, 0.68; 95% CI, 0.58-0.80; P<0.001), ovary cancer (HR, 0.48; 95% CI, 0.29-0.81; P=0.005), melanoma (HR, 0.52; 95% CI, 0.37-0.73; P<0.001), and basal cell carcinoma (BCC; HR, 0.57; 95% CI, 0.48-0.67; P<0.001). IL-23i was associated with a reduced risk of NHL (HR, 0.39; 95% CI, 0.19-0.78; P=0.006), hepatobiliary cancer (HR, 0.44; 95% CI, 0.31-0.62; P<0.001) and BCC (HR, 0.76; 95% CI, 0.57-0.99; P=0.046). In a sensitivity analysis comparing patients managed by IL-17i and IL-23i with their biologic-naïve counterparts, these classes were associated with decreased risk of several malignancies.

Conclusion:

IL-17i and IL-23i are associated with decreased risk of several malignancies. These findings should be considered prior to the prescription of biologics.

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Abstract N°: 3884

Long-term, real-world efficacy of biologics for psoriasis: a single centre's experience

Heeyeon Kim[1], Hyungrye Noh[1], Dong Min Shin[1], Tae Min Lee[1], Se Jin Oh[1], Ji-Hye Park[1], Jong-Hee Lee[1], Dong-Youn Lee[1], Joo Heung Lee[1], Joonho Shim[1]

[1]Samsung Medical Center, Dermatology

Introduction & Objectives:

Biologic therapies have significantly advanced the management of moderate-to-severe chronic psoriasis. Biologics targeting Tumor Necrosis Factor (TNF)-a, Interleukin (IL)-17, IL-23, and IL-12/23 have emerged as an important treatment option. However, data on long-term outcomes and safety profiles of the biologics in daily practice are limited. This study aims to describe the long-term efficacy and safety of biologics, identify possible predictors for drug survival, and compare drug survival between bio-naïve patients and bio-switched patients who experience failure to biologics.

Materials & Methods:

This is a single-center retrospective cohort study involving psoriasis patients with moderate to severe psoriasis (PASI>10, BSA>10) who failed at least 1 previous systematic treatment and treated with biologics from 2011 to 2022. Drug survival was assessed with Kaplan-Meier method and Cox regression analysis.

Results:

A total of 78 patients who treated with biologics for at least 2 month and a maximum of 142 months were assessed retrospectively. Biologics targeting IL-23 showed the highest survival, and IL-17 inhibitors showed a rapid response to initial sufficient booster injection. Drug survival was significantly higher for biologics targeting IL-23 in patients with severe psoriasis (PASI>20). Other possible effect modifiers such as the number of previous treatments, nail and scalp involvement, psoriatic arthritis, and body mass index all showed no statistical relevance with the biologics drug survival. The drug survival of bio-switched patients was lower than that of bio-naïve patients and the patients who failed with the original biologics within a year showed lower drug survival with the subsequent biologics.

Conclusion:

Our clinical experience demonstrates that biologics could be a safe treatment option for long-term therapy and biologics targeting IL-23 might be the most sustained biologics in severe psoriasis.

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Abstract N°: 3916

Rituximab a magical drug – our experience in non FDA approved indications (LPP, SLE, BP) and FDA approved (WG)

Radhika S R*[1]

[1]Sapthagiri Institute of Medical Sciences and Research Centre, dermatology, Bengaluru, India

Introduction & Objectives:

Rituximab is a monoclonal antibody that targets the CD20 molecule on B-cells. It is a US FDA approved drug for lymphoma, rheumatoid arthritis, chronic lymphocytic leukemia, Wegener's granulomatosis, Microscopic Polyangitis and Pemphigus vulgaris

Materials & Methods:

CASE SERIES:

CASE 1: 37 yr old with K/C/O WG since 9 years came with exacerbations of lesions since few months. Patient was given various immunosupressants with no improvement.

CASE 2: A 50-year-old female with LPP (Lichen Planus Pemphigoides) since 2 years and also a k/c/o diabetes since 10 years, was initially treated with conventional modalities of treatment but failed to achieve remission.

CASE 3- 8: 6 patients with BP (Bullous Pemphigoid) were treated with conventional treatment, but had no relief. Case 3 had TB as a comorbidity. Case 4 had DM as comorbidity.

CASE 9 & 10: 2 female patients with SLE were given multiple modalities of treatment. But results were unsatisfactory.

Results:

RA protocol was given to 6 patients and Lymphoma protocol to 1 LPP and 3 BP patients. All patients had a good remission. C ANCA, SLEDAI, and disease activity score was reduced.

Conclusion:

Rituximab is one of the effective monoclonal antibody which worked wonders in treating the life threatening conditions such as WG, SLE, BP. It is also a magical drug to be used in patients, as it does not have the dreadful side effects of few of the immunosuppressants we use. The side effects which we found in our study was also negligible and the remission period is long (2years)

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Abstract N°: 3968

Plasma exchanges and rituximab: a revolutionary association in the treatment of pemphigus

Imane Ouadi*[1], Daflaoui Hanane[1], Zizi Nada[2], Dikhaye Siham[2]

[1]CHU Mohamed VI oujda, Department of Dermatology, Mohammed VI University Hospital of Oujda, Oujda, Morocco, [2]CHU Mohamed VI oujda, Department of Dermatology, Department of Epidemiology, Clinical Research and Public Health Laboratory, Oujda, Morocco

Introduction & Objectives:

Mortality of pemphigus has dropped tremendously over the years following the discovery of corticosteroids (CS) and immunosuppressive agents (ISA), however, these treatments often come with considerable side effects, largely due to the prolonged immunosuppression they induce. Consequently, new biologic agents have been tested and showed great results, rituximab (RTX), a monoclonal antibody anti CD20, has been approved by the FDA and is now used in the treatment of pemphigus vulgaris (PV), other treatments have been deployed to reduce the impact of the burden of pemphigus, such as therapeutic plasma exchanges (TEP). Therefore, our work aims to study the efficacy of the combination of these 2 treatments, and to compare it to other treatment protocols of pemphigus.

Materials & Methods:

Our work is a monocentric descriptive retrospective study in the dermatology department of our university hospital, from June 2014 to May 2022, our patients were divided into 4 treatment groups, G1 were patients who received CS and ISA (23 patients), G2 were patients who received CS and RTX (14 patients), G3 were patients who received CS, RTX and TEP (12 patients), and G4 were patients treated with CS only (7 patients), comparison relived on ANOVA and Kruskal Wallis test, $p<0.05$ was considered statistically significant.

Results:

We recorded 64 cases of pemphigus, the mean age of the onset of the disease was **55,69 ± 14,7** years with a F/M sex ratio of 1,06. Median for body surface area (BSA) was 22.5%, and the mean for cutaneous PDAI was 40.7, according to S2K severity guidelines for pemphigus, 57.1% of our patients had a severe form of pemphigus, cessation of formation of new blisters was observed after only 12.3 days for G1, 17.5 days for G2, 24 days for G4 and 43 days for G3. Complete skin healing was obtained after 19.1 days for G1, 25.7 days for G2, 31.8 for G3 and 55.1 for G4, group comparison showed a statistically significant difference between G1, G2 and G3 in terms of cessation of blisters and complete skin healing with a p value < 0.01. the mean number for plasma exchange sessions was 2.3+/-0.9 and no serious adverse effects were encountered, consequently hospital stay was affected whereas it dropped from a median of 8 weeks in G1 to 5 weeks in G3, corticosteroids full dose was tapered in G3 where the mean dosage was 1.15mg/kg/day compared to G1 at 1.6mg/kg/day, as for progressive tapering, it's been initiated after 19 weeks of full dose for G1, but only after 7 weeks for G3 and 9 weeks for G2.

Discussion and conclusion:

Our results reinforce already existing data on the efficacy of RTX in the treatment of pemphigus, in fact, it is now considered a first line agent in the treatment of moderate/severe PV since its approval by the Food and Drug Administration (FDA) since June 2018, however data on the efficacy of TEP in the treatment of pemphigus are scarce and controversial, we know that it acts as a immunosuppressant by depleting nonselectively pathologic IgG antibodies from the sera of patients, while replacing it with albumin/fresh frozen plasma, throughout our study, we

noticed that combining TEP to RTX and CS allowed an even quicker remission compared to CS and RTX only, with no major side effects, making is a safe adjuvant therapy in the management of severe cases, our work is the first in Morocco, the Maghreb and Africa to have evaluated the benefits of TEP, international data are scarce, a similar study in China showed similar results as ours with specifying the time frame for clinical remission.

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Abstract N°: 4015

Treatment of a Generalized Pustular Psoriasis flare with spesolimab, our experience

Ricardo Patricio Roman Cheuque*[1], David Jiménez-Gallo[1], Gonzalo Gallo-Pineda[1], Alicia Jiménez Antón[1], Myriam Viedma Martínez[1], Mario Linares[1]

[1]Hospital Universitario Puerta del Mar, Dermatology, CADIZ

Introduction & Objectives:

GPP is a rare but potentially severe auto-inflammatory skin disease characterized by one or multiple flares of generalized sterile pustules, sometimes associated with systemic symptoms and severe complications.

Until recently, was described as another psoriasis variant. Nowadays, it being an entirely different entity is being discussed. Variants of IL36RN, CARD14, AP1S3 and MPO genes and its expression are believed to be part of the specific pathogenesis of GPP, involving the IL1/IL36chemokinesneutrophil pathogenic axis. IL-36 pathway mutations are most frequent in GPP without associated PP.

Spesolimab, a novel IL-36 receptor antagonist, is approved by the EMA and other agencies for its use on GPP flares as monotherapy, usually on a single dose.

Materials & Methods:

A 41-year-old male with a familiar history of localised pustular psoriasis and a known diagnosis of Generalized Pustular Psoriasis (GPP), previously treated with methotrexate, dapsone and oral corticosteroids without success, consulted in our unit for a new flare on his scalp, face, armpits and legs without associated symptoms. Clinical examination found multiple small pustules on his scalp, face and armpits. On both legs, symmetrical psoriasiform plaques with pustules on its surface were found. Severity scores were: GPPGA 4, GPPASI 22, BSA 25%. Laboratory and imaging tests were normal, biopsies were reported as diagnostic of psoriasis. Genetical testing for HLA variants was B27-negative and CW6-positive. Testing for possible IL-36RN, CARD14, AP1S3 and MPO gene mutations was not available.

We choose to treat with spesolimab 900mg IV once.

Results:

Subtotal clearance of pustules after seven days. Of note, pustules over the plaques on both legs disappeared and now they were compatible with classical plaque psoriasis (PP). New severity scores were: GPPGA 1, GPPASI 5, BSA 7%. As adverse effects, our patient presented a non-complicated HSV-1 periocular mild flare 3 days after drug administration. For that reason, we chose not to administer a second dose.

At week-4 follow-up, clinical findings were identical. We added izekizumab 80mg sc. monthly as a maintenance therapy due to the persistence of non-pustular erythematous scaling plaques on both legs. No new flares nor adverse effects have been reported after 5 months.

Conclusion:

Spesolimab was an effective treatment in this case, consistent with the results published on clinical trials. The EFFISAYL-1 trial obtained a 54 vs 6 % against placebo on total clearing of pustules (GPPGA 0) at day seven. As for safety, mild infections, like the one presented in our case are the most frequent adverse reactions (17,1 vs 3,1 %

against placebo on clinical trials).

We present a real-clinical practice case of a GPP flare successfully treated with spesolimab.

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Abstract N°: 4023

Quality of life in cancer patients undergoing targeted therapies

Maria Fernanda Gomez Hernandez[1], Katia Fabiola Avila Fernandez*[2], Landy Hayde Lopez Jimenez[2], Judith Guadalupe Dominguez Cherit[2, 3]

[1]The National Cancer Institute, Ciudad de México, Mexico,[2]Médica Sur, Ciudad de México, Mexico, [3]Salvador Zubirán National Institute of Health Sciences and Nutrition, Ciudad de México, Mexico

Introduction & Objectives:

Targeted therapies includes a group of treatments designed to specifically block molecules involved in the growth and development of cancer cells. Although intended to treat cancer, targeted therapies also damage the skin and its appendages, resulting in the consistent report of dermatologic adverse events. These consequences can lead to dose modifications, discontinuation of treatment, and sometimes definitive interruptions.

Understanding dermatologic toxicities and their impact on the quality of life in different populations in order to find symptomatic control and minimizing the need for dose reduction and drug termination.

Materials & Methods:

We did a descriptive study from September 2022 to March 2023 in a private oncology center with patients who received any targeted therapy, despite the type of cancer, and who developed skin toxicity. We applied the Skindex-16 Scale to evaluate the quality of life.

Results:

We had a total of sixteen patients. Sixty percent were men. The median age of the patients was 61 years. All of the patients have stage IV cancer. Colorectal adenocarcinoma represented 44% of cases, followed by lung adenocarcinoma (22%), while nasopharyngeal squamous cell carcinoma, intestinal-type adenocarcinoma, and non-mucinous adenocarcinoma accounted for 11% each. The biological therapies used were panitumumab (44%), amivantamab (22%), cetuximab (22%), and pembrolizumab (11%). All patients were between the second and tenth cycles of treatment. None of the patients had a grade 3 or more of severity, half of the patients were grade 2. The median score for the quality of life was 46, with the first quartile at 15 and the third quartile at 51. Only one patient needed to have a reduction in their therapy due to a skin manifestation.

Characteristics	Patients (n=9)
Gender, %(n) M	 66% (6)
Age, median (p25-p75)	61(54-64)
Type of cancer, % (n) Colorectal adenocarcinoma Lung adenocarcinoma Nasopharyngeal squamous cell carcinoma Intestinal-type adenocarcinoma Non-mucinous adenocarcinoma	 44 (4) 22 (2) 11 (1) 11 (1) 11 (1)
Therapy, % (n) Panitumumab Amivantamab Cetuximab Pembrolizumab	 44 (4) 22 (2) 22 (2) 11 (1)
Cycle, median (min-max)	5 (2-10)
Quality of life, median (p25-p75)	46 (15- 51)
CTC*, % (n) 1 2	 44 (4) 55 (5)
Reduction or therapy change, % (n) Complete Reduction	 88 (8) 11 (1)

CTC.- Common Toxicity Criteria

Discussing the results we found that none of the patients experienced grade 3 or higher severity symptoms. This is an encouraging outcome, suggesting that the selected biological therapies were generally well-tolerated by the patients. Assessing the quality of life, we used The Skindex-16 and found that the median score was 46 (moderate quality of life). However, it's important to note that there was considerable variation among patients, because of these findings, we emphasize the heterogeneity in the patient's subjective experiences and highlight the need for individualized approaches.

Conclusion:

Overall, our study provides insights into the characteristics and outcomes of patients with stage IV cancer receiving biological therapies. While the selected treatments were generally well-tolerated and resulted in manageable adverse effects, the reported quality of life varied among patients. These findings underscore the importance of considering individual patient factors and tailoring treatment strategies to optimize both clinical outcomes and quality of life in this patient population.

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Abstract N°: 4035

Efficacy and Safety after Switch from Reference Ustekinumab to Ustekinumab Biosimilar (CT-P43) in comparison with the Maintenance Group (CT-P43 or Reference Ustekinumab) in Patients with Moderate-to-Severe Plaque Psoriasis: 1-Year Result

Kim A. Papp[1], Mark Lebwohl[2], Diamant Thaçi[3], Janusz Jaworski[4], Bartlomiej Kwiek[5], Jakub Trefler[6], Anna Dudek[7], Jacek Szepietowski[8], Nataliya Reznichenko[9], Joanna Narbutt[10], Wojciech Baran[11], Joanna Kolinek[12], Stefan Daniluk[13], Katarzyna Bartnicka-Masłowska[14], Adam Reich[15], Yuriy Andrashko[16], Sunghyun Kim[17], Yunju Bae[17], Dabee Jeon[17], Jinsun Jung[17], Hyunseung Lee[17], Tina Pyo[17], Woori Ko[17]

[1]Probity Medical Research, Waterloo and University of Toronto, Toronto, ON, Canada,[2]Icahn School of Medicine at Mount Sinai, New York, New York, [3]Institute and Comprehensive Center Inflammation Medicine, University of Lübeck, Lübeck, Germany, [4]Centrum Medyczne Reuma Park NZOZ, [5]Klinika Ambroziak Dermatologia, Lazarski University, [6]REUMA RESEARCH, [7]Centrum Medyczne AMED Warszawa Targowek, [8]Department of Dermatology, Venereology and Allergology, Wroclaw Medical University, Wroclaw, Poland, [9]Military Hospital (Military Unit A3309) of Military-Medical Clinical Center of Eastern Region, Therapeutic Department (with wards for neurological and dermatovenerological patients), [10]Dermoklinika Centrum Medyczne s.c., [11]Department of Dermatology, Venereology and Allergology, Wroclaw Medical University, [12]Medycyna Kliniczna, [13]ClinicMed Daniluk, Nowak Spolka Jawna, [14]Centrum Medyczne AMED Oddzial w Lodzi, [15]Department of Dermatology, Institute of Medical Sciences, Medical College of Rzeszow University, [16]Uzhhorod National University, Dermatovereology departmen, Treatment and Diagnostic Center (Asclepius), [17]Celltrion

Introduction & Objectives:

CT-P43 is a proposed biosimilar to the reference ustekinumab (UST). Therapeutic equivalence of CT-P43 to UST has been shown in patients with chronic moderate to severe plaque psoriasis through primary endpoint in terms of the mean percent improvement from baseline in Psoriasis Area Severity Index (PASI) score at Week 12 (EADV congress 2022, abstract number 3534). Here, the efficacy and safety results up to Week 52 including transition data from UST to CT-P43 are presented.

Materials & Methods:

Patients with chronic moderate to severe plaque psoriasis who were candidates for phototherapy or systemic therapy were randomly assigned in a 1:1 ratio to receive 45 mg or 90 mg of CT-P43 or UST based on patient's baseline body weight. Prior to dosing at Week 16, patients in UST group were re-randomized in a ratio of 1:1 to either to continue receiving UST or to switch to CT-P43 until end of study. All patients initially randomized to CT-P43 group continued CT-P43. Efficacy and safety were evaluated up to Week 52.

Results:

A total of 509 patients were randomized (CT-P43: 256, UST: 253) and followed the single transition at Week 16 (CT-P43 maintenance: 253, UST maintenance: 125, Switched from UST to CT-P43: 124). The demographics and baseline characteristics were well balanced among the 3 groups. Sustained and comparable efficacy in terms of the mean percent improvement in PASI score was shown in each treatment group through Week 52 for the full analysis set (95.07%, 92.55% and 92.86% at Week 28 and 93.79%, 93.39%, and 91.58% at Week 52, respectively) (Figure 1). Additional secondary efficacy endpoints were generally similar among the groups. At Week 52, 93.3%, 89.3%, 79.4%, and 47.4% of the CT-P43 maintenance group; 94.4%, 92.8%, 81.6%, and 47.2% of the UST

maintenance group; and 96.0%, 89.5%, 76.6%, and 34.7% of the Switch to CT-P43 group had PASI 50, PASI 75, PASI 90, and PASI 100 responses, respectively. Following the single transition, there were no clinically meaningful differences in adverse events among the groups and the safety profile of each group was in line with the known safety profile of UST (Table 1). The single transition from UST to CT-P43 at Week 16 does not have an impact on immunogenicity. The number of patients who showed at least one ADA positive result obtained from Week 16 post-dose up to Week 52 were 21.6% patients and 20.2% patients in the UST maintenance and the Switch to CT-P43 treatment groups, respectively.

Conclusion:

The results demonstrated that CT-P43 was equivalent to UST as measured by the mean percentage improvement in PASI score up to Week 52 in patients with moderate to severe plaque psoriasis. Comparable secondary efficacy results and sustained efficacy results up to Week 52 supported the similarity of CT-P43 and UST. CT-P43 was also well tolerated with a safety profile comparable to that of UST, and no notable safety issue was identified following single transition from UST to CT-P43 compared with CT-P43 maintenance and UST maintenance groups up to Week 52.

Figure 1. Mean (±SD) percentage improvement from baseline in PASI score through Week 52 (Full analysis set)

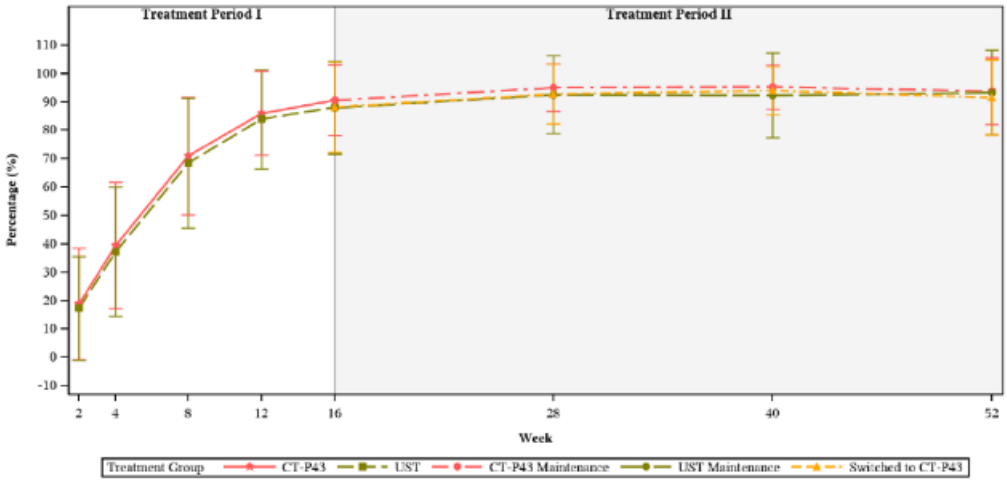

Table 1. Overview of TEAEs through Week 52 (Safety set)

Patients, n (%)	Treatment Period I		Treatment Period II		
	CT-P43 (N=256)	UST (N=253)	CT-P43 Maintenance (N=253)	UST Maintenance (N=125)	Switched to CT-P43 (N=124)
≥1 TEAE	95 (37.1)	75 (29.6)	86 (34.0)	51 (40.8)	52 (41.9)
≥1 TESAE	4 (1.6)	4 (1.6)	5 (2.0)	3 (2.4)	2 (1.6)
≥1 TEAE leading to Study drug discontinuation	0	0	5 (2.0)	1 (0.8)	1 (0.8)
≥1 TEAE classified as Infections	34 (13.3)	32 (12.6)	39 (15.4)	23 (18.4)	24 (19.4)
≥1 TEAE classified as Injection site reactions	3 (1.2)	2 (0.8)	1 (0.4)	0	2 (1.6)
≥1 TEAE classified as Hypersensitivity reactions	0	0	1 (0.4)	0	0
≥1 TEAE classified as Malignancies	0	0	1 (0.4)	0	0

Abbreviations: TEAE, treatment-emergent adverse event; TESAE, treatment-emergent serious adverse event; UST, ustekinumab.

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Abstract N°: 4053

Characteristics in patients with psoriasis treated with different biologics – a cohort study

Christopher Willy Schwarz*[1, 2], Lone Skov[1, 2], Alexander Egeberg[2, 3], Alun Passey[4], Jennifer Lee[4], Patricia Gorecki[5], Nikolai Loft[1]

[1]Copenhagen University Hospital – Herlev and Gentofte, Department of Dermatology and Allergy, Copenhagen, Denmark, [2]University of Copenhagen, Department of Clinical Medicine, Copenhagen, Denmark,[3]Copenhagen University Hospital – Bispebjerg, Department of Dermatology, Copenhagen, Denmark, [4]Janssen Pharmaceutica N.V., Belgium, [5]Janssen, High Wycombe, United Kingdom

Introduction & Objectives:

Psoriasis is an immune-mediated disease affecting the skin and is associated with several comorbidities. In addition, patients with psoriasis more often smoke and are more frequently obese than the general population. Biologics are effective in the treatment of moderate-to-severe psoriasis in most patients by directly or indirectly blocking the activity of cytokines involved in its pathogenesis. However, the response to various biologics can differ depending on individual patient characteristics and some patient characteristics cause special warnings; for example, interleukin-17 inhibitors have a special warning in inflammatory bowel disease. In this study we investigated (i) whether patient characteristics differ across various biologics in patients initiating biologics; (ii) whether patient characteristics differ across various biologics in patients still on biologic therapy after one year; and (iii) whether the concomitant use of topical therapies was equally common across the various biologics the first year.

Materials & Methods:

We defined our cohort by using national registry data. Patient characteristics included demographics, comorbidities, and previous and concomitant treatments. We investigated adult patients initiating adalimumab, etanercept, infliximab, secukinumab and ustekinumab for psoriasis, and divided them into treatment lines (first to third-line). Other biologics were excluded due to limited data. To test if each characteristic was equally common across the five biologics, we used either a $\chi 2$-test, Fisher's exact test or an ANOVA.

Results:

We identified a total of 3,087 unique patients initiating first, second and/or third-line biologic therapy for psoriasis. Characteristics such as sex, smoking and most comorbidities were equally distributed across the various biologics. Some characteristics were neither equally distributed at baseline nor after one year of treatment: (i) biologic-naïve patients treated with ustekinumab were younger; (ii) in all treatment lines, the prevalence of psoriatic arthritis in the ustekinumab group was lower (in biologic-naïve: 14% vs 29-39%); (iii) in all treatment lines, the infliximab group was much more frequently co-treated with methotrexate (in biologic-naïve: 48% vs 5-21%); (iv) co-treatment with topical therapies were not equally common in all biologic groups; it seemed to be more common in patients treated with etanercept.

Conclusion:

We investigated which patient characteristics were related to the choice of biologic therapy for psoriasis. We found that treatment assignment does not seem to depend on patient characteristics. This finding suggests that more research on patient characteristics and biologics is needed to shift to a more personalized treatment

strategy.

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Abstract N°: 4069

Role of immunotherapy in malignant melanoma in people living with HIV: Do we know enough, can we do better?

Aikaterini-Anni Karaiskou[1], Vasileios Paparizos[1], Evanthia Mastoraki[2], Alexander Stratigos[1]

[1]Andreas Syggros Hospital, First Department of Dermatology and Venereology National and Capodistrian University of Athens, Greece, [2]Andreas Syggros Hospital, First Department of Dermatology and Venereology National and Kapodistrian University of Athens, Greece

Introduction & Objectives:

Immune checkpoint inhibitors (ICIs) have become an emergent revolutionary treatment for several metastatic cancers, including malignant melanoma (MM). However, clinical studies of immunotherapy have generally excluded patients with HIV infection. Consequently, the anti-tumor activity and safety of these agents have not been thoroughly evaluated in this patient population. Nevertheless, HIV-positive individuals carry a higher risk of developing MM due to their immunodeficient status, and once this cancer develops, it shows a more aggressive course and worse prognosis.

Materials & Methods:

We retrospectively reviewed the case of a 50-year-old patient with MM and HIV infection who was treated with nivolumab in combination with antiretroviral therapy (HAART). He was presented with a 17-month history of an ulcerated pigmented lesion on the middle finger of his right hand. A biopsy of the lesion confirmed the diagnosis of MM, classified as TNM pT4a (Clark Level V and Breslow depth 6mm). No BRAF mutation was detected. The patient underwent finger amputation and therapeutic axillary lymph node dissection of the right underarm, with 11 out of the 26 excised lymph nodes testing positive. Initial chemotherapy with carboplatin was administrated, which, five months later, was followed by adjuvant immunotherapy with nivolumab when the patient presented metastatic skin lesions on his right axilla and left cheekbone. Throughout the treatment, the total number of CD3+/CD4+/CD8+/CD16+/CD19+ cells and the HIV viral load (HIVVL) were monitored.

Results:

There was no evidence of interaction between ICIs and HAART, and no adverse events were recorded. At baseline, the patient had a CD4+ cell count of 600 cells/ml, and the HIVVL was undetectable (<20copies/ml). There were no significant changes in the number of CD3+/CD4+/CD8+/CD16+/CD19+ cells or the HIVVL during the treatment. A re-staging CT scan 6 months after the initiation of ICIs, revealed metastatic lesions in the liver, spleen, and adrenal glands, as well as pathologically enlarged supraclavicular and infraclavicular lymph nodes. The patient continued nivolumab treatment without experiencing side effects and without or adverse effects on his HIVVL (CD4>600 and HIVVL UD). Unfortunately, the patient passed away 17 month after the initial diagnosis.

Conclusion:

Based on our single-patient experience, the administration of nivolumab in HIV-positive patients with metastatic MM appears to be safe and well-tolerated.

We postulate that the poor clinical outcome in this case was primarily due to delayed diagnosis, and ICIs treatment may be a promising tool in the management of advanced disease in HIV-positive patients.

Several ongoing Phase I/II clinical trials are currently evaluating the use of ICIs in patients with HIV and advanced

solid tumors, which will provide further insights into the effectiveness of these treatments.

In conclusion, it is crucial not to miss opportunities to enroll patients at high risk of developing malignancies, such as patient living with HIV, in clinical trials.

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Abstract N°: 4155

Adalimumab and secukinumab long term treatment in HS patients: a single centre experience

Prisca Guerra[1], Elia Rosi[1], Ilaria Scandagli[1], Gianmarco Silvi[1], Giulia Nunziati[1], Antonella DI Cesare[1], Francesca Prignano[1]

[1]University of Florence, Department of Health Sciences, Section of Dermatology, Firenze, Italy

Adalimumab and secukinumab long term treatment in HS patients: a single centre experience

Prisca Guerra1, Elia Rosi1, Ilaria Scandagli1, Gianmarco Silvi1, Giulia Nunziati1, Antonella Di Cesare1, Francesca Prignano1

1Department of Health Sciences, Section of Dermatology, University of Florence, Florence, Italy

Introduction & Objectives:

Hidradenitis suppurativa (HS) is a disabling, hard-to-treat, chronic inflammatory disease affecting apocrine gland rich areas of the body. To date, adalimumab (ADA) remains the only biologic molecule approved for the treatment of moderate-to-severe HS patients by both the Food and Drug Administration (FDA) and the European Medicines Agency (EMA). Rather recently, a primary endpoint analysis from two phase 3 trials showed the superiority of secukinumab (at every 2 weeks dosing) over placebo in achieving the Hidradenitis Suppurativa Clinical Response (HiSCR) at week 16 and week 52 in HS patients.

In this context, we sought to provide our real-life experience with the long-term use of ADA and SEC in the treatment of HS patients.

Materials & Methods:

A monocentric retrospective observational study was performed to assess efficacy, safety, and tolerability in HS patients treated continuously with ADA and SEC for at least 4 and 2 years, respectively. Demographic and clinical data were assessed at baseline, at 12 weeks, and at 1, 2, 3 and ≥ 4 years of continuous treatment with ADA and at baseline, 12 weeks and at 1 and ≥ 2 years of continuous treatment with SEC.

Results:

Overall, data from 51 HS patients (45 ADA, 6 SEC) were retrieved. Nine out of 45 (4F, 5M) ADA patients were treated continuously with ADA for at least 4 years, and three out of 6 (2F, 1M) SEC patients were treated continuously with SEC for at least 2 years. All patients treated with SEC had previously failed ADA therapy. In this study, we will describe demographic, clinical characteristics (including topography of the lesions), clinical outcomes (including number of flares/year and adjuvant treatments needed/year), and the reasons for discontinuation of ADA and SEC in this subset of HS patients.

Conclusion:

According to our experience, both ADA and SEC are well-tolerated and effective in patients with HS. Thus, both molecules can be considered safe treatment options for long-term control of HS. In addition, SEC might represent a safe and effective second-line therapy for HS patients who previously failed ADA.

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Abstract N°: 4275

Onset of vitiligo in psoriasis patients on interleukin-17 inhibitors

Cristina Emilia Galache Osuna[1], Sebastián Reyes García[1], Jimena Carrero[1], Alvaro Nuñez[1], Marta López-Pando[1], Jorge Santos Juanes[1]

[1]Hospital Universitario Central de Asturias, Dermatology, Oviedo, Spain

Introduction & Objectives:

The development of vitiligo during treatment with biological agents is an unusual event and only a few isolated cases have been reported. We describe the clinical characteristics and evolution of two patients developing new-onset vitiligo following initiation of an anti-IL-17 agents for psoriasis and synthesize the literature.

Materials & Methods:

We report two patients diagnosed with psoriasis under treatment with anti-interleukin 17 who presented vitiligo.

A 41-year-old Caucasian woman was diagnosed with psoriasis and psoriatic arthritis at 18 years of age. The patient has been received metothrexate, ciclosporin, adalimumab and ustekinumab. She was switched to secukinumab (300 mg/month). At 6 months, she had clinical resolution of psoriasis (PASI score of 0) and disappearance of the articular manifestations of psoriatic arthritis. Vitiligo appeared after 9 months of secukinumab therapy. Clinical examination revealed vitiligo covering 70% of the skin. Given the improvement in her psoriasis, the patient decided to continue the treatment. Seven years later the patient remains stable.

A 23-year-old Caucasian woman was diagnosed with psoriasis at 14 years of age. The patient has been received ciclosporin, methotrexate, and adalimumab. She was switched to ixekizumab (standard doses). Vitiligo appeared after two months of ixekizumab therapy. Clinical examination revealed vitiligo around the mouth. With appropriate information the patient decides to switch to tildrakizumab.

Results:

The mechanism of onset of vitiligo is unclear. The patients with comorbid autoimmune disorders have a higher risk of developing vitiligo. The psoriatic patients have developed vitiligo with anti-TNF-alpha agents, secukinumab, ixekizumab, tildrakizumab and ustekinumab. Although secukinumab was reported to result in an improvement in all conditions in psoriasis plaque patients (including vitiligo), a recent study for the treatment of active vitiligo with secukinumab showed progression of vitiligo.

Conclusion:

It has been suggested that vitiligo may be a paradoxical skin reaction to biological agents. The physicians should be aware of the possibility of new-onset vitiligo during biological therapy. Successful biological treatment strategy should not be discontinued unless the impact of vitiligo on quality of life outweighs the benefits of biological therapy for the underlying inflammatory disease.

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Abstract N°: 4358

Injection Experience Satisfaction with a New, Citrate-Free Formulation of Ixekizumab in the United States Customer Support Program

Sanjay Chabra[1], Julie Birt*[2], Rebecca Bolce[2], Jeffrey R Lisse[2], William Malatestinic[2], Baojin Zhu[2], Miriam Kimel[3], Julie Mccormack[3], Marissa Stefan[3], Wc Cragun[4]

[1]Texas Arthritis Center, El Paso, [2]Eli Lilly and Company, [3]Evidera, [4]Dermatology San Antonio, San Antonio

Introduction & Objectives:

A new, citrate-free formulation of ixekizumab is now available. Citrate-free ixekizumab demonstrated reduced injection site pain and fewer pain events versus the original ixekizumab formulation in a publication of the Phase I studies. The objective of this study was to evaluate satisfaction with the first injection experience of citrate-free ixekizumab in a real-world study.

Materials & Methods:

Adults enrolled in the Lilly United States (US) Customer Support Program, receiving either original ixekizumab for ≤ 1 year or initiating citrate-free ixekizumab for ≤ 1 month for psoriasis, psoriatic arthritis, or axial spondyloarthritis were included in the study. Patients receiving original ixekizumab completed two web-based surveys: 1) assessed their satisfaction with the first injection experience with original ixekizumab and 2) completed within 30 days after switching to citrate-free ixekizumab and assessed their satisfaction with the first injection experience with citrate-free ixekizumab, willingness to continue using and recommending citrate-free ixekizumab, and formulation preference (Figure 1). Patients initiating citrate-free ixekizumab who were not previously exposed to ixekizumab completed one web-based survey to assess satisfaction with their first injection experience with citrate-free ixekizumab and willingness to continue using and recommending citrate-free ixekizumab. 632 patients completed at least one survey. Descriptive and comparative statistics are reported for observed data for patients that completed surveys both before and after switching to citrate-free ixekizumab (n=361). Descriptive statistics also are reported for patients not previously exposed to ixekizumab that completed a survey after initiating citrate-free ixekizumab (n=90).

Results:

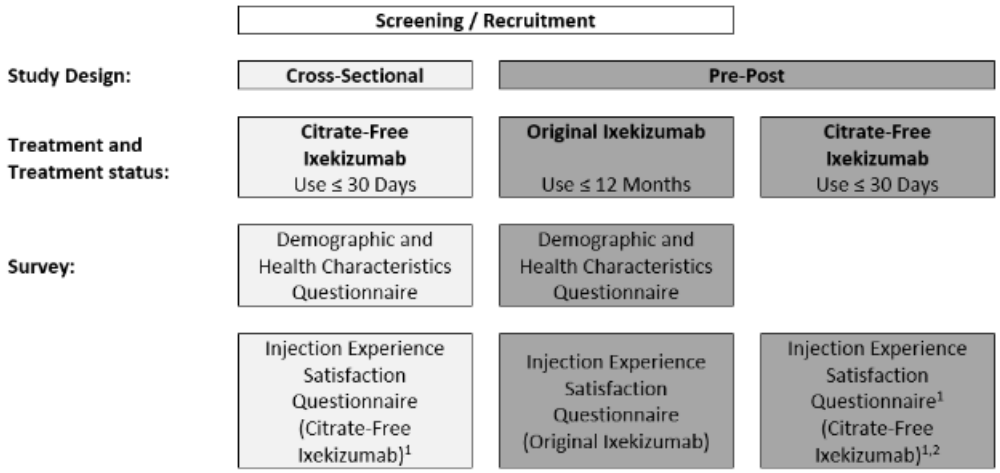
451 patients were included in the analysis. Most patients were white (85.4%) had psoriasis and/or psoriatic arthritis (91.8%), with a mean age of 45.3 years. Significantly more patients were “very” or “somewhat satisfied” with their first injection experience with citrate-free ixekizumab compared to original ixekizumab (83.9% vs. 71.7% respectively; p=0.0001; Figure 2). The percent of patients receiving original ixekizumab that were “very” or “somewhat satisfied” with their first injection did not differ by treatment duration: ≤1 month (N=40, 70.0%), 2 to 5 months (N=151, 70.2%), and 6 to 12 months (N=170, 73.5%) (p=0.7768). 93.9% and 93.4% of patients who switched from original ixekizumab were “definitely” or “mostly willing” to continue using citrate-free ixekizumab (Figure 3) and recommend citrate-free ixekizumab to a friend or family member, respectively. 94.2% of patients who switched from original to citrate-free ixekizumab preferred citrate-free ixekizumab or had no preference.

74.5% of patients not previously exposed to ixekizumab were “very” or “somewhat satisfied” with their first injection experience with citrate-free ixekizumab and 94.5% were “definitely” or “mostly willing” to continue using citrate-free ixekizumab.

Conclusion:

Citrate-free ixekizumab was preferred and well accepted by most patients who switched from original ixekizumab. Most patients who switched from original ixekizumab were satisfied with their first injection experience, were willing to continue using and recommend to others, and preferred the new formulation. Similar findings were seen for those newly initiating citrate-free ixekizumab.

Figure 1. Overall study design.



[1] Questionnaires vary slightly based on formulation

[2] Participants may be contacted each month, up to four months subsequent to Baseline, to determine eligibility based on starting citrate-free ixekizumab

Figure 2. Overall Satisfaction with First Injection of Citrate-Free Compared to Original Ixekizumab

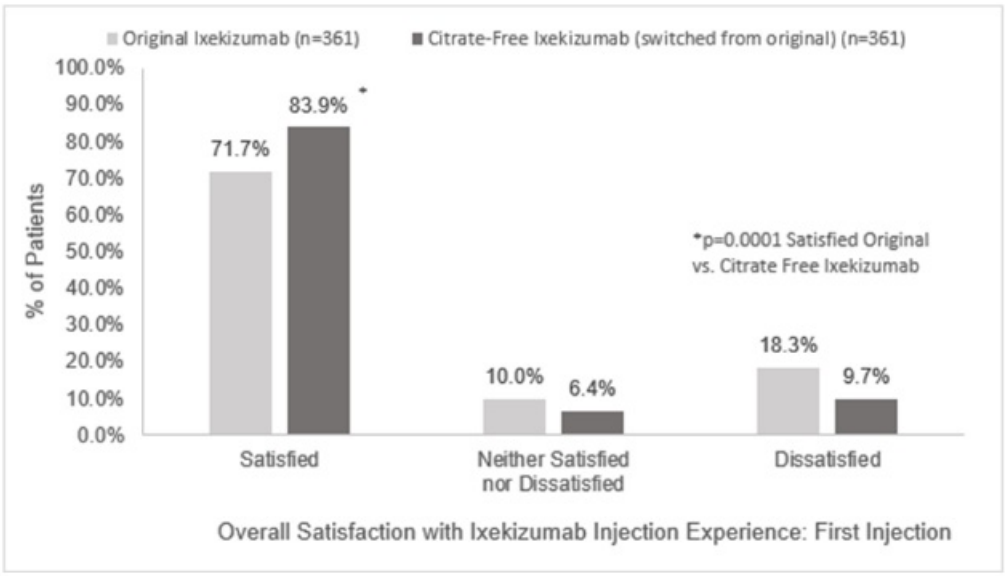


Figure 3. Willingness to Continue Using Citrate-Free Ixekizumab

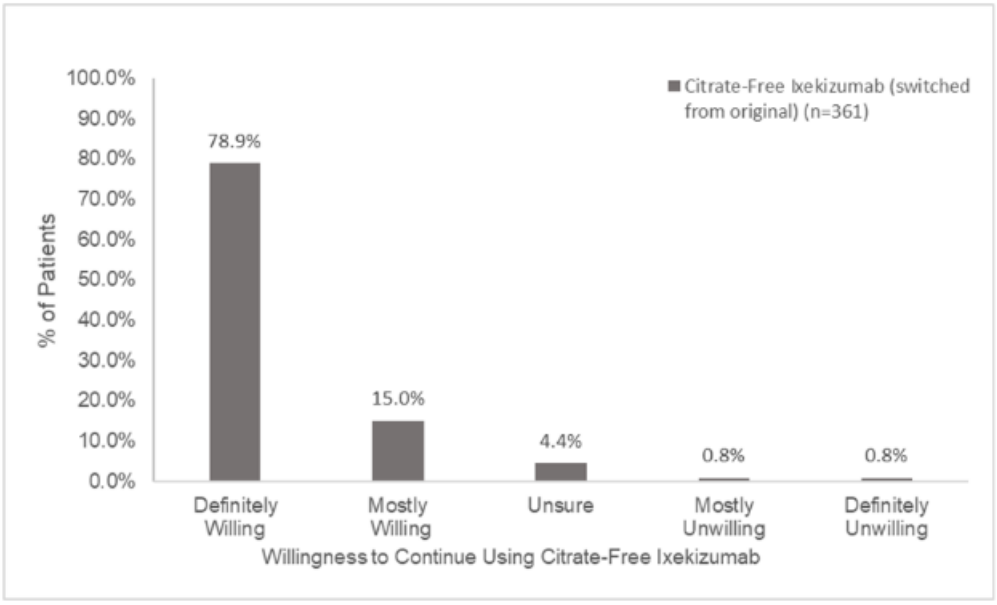
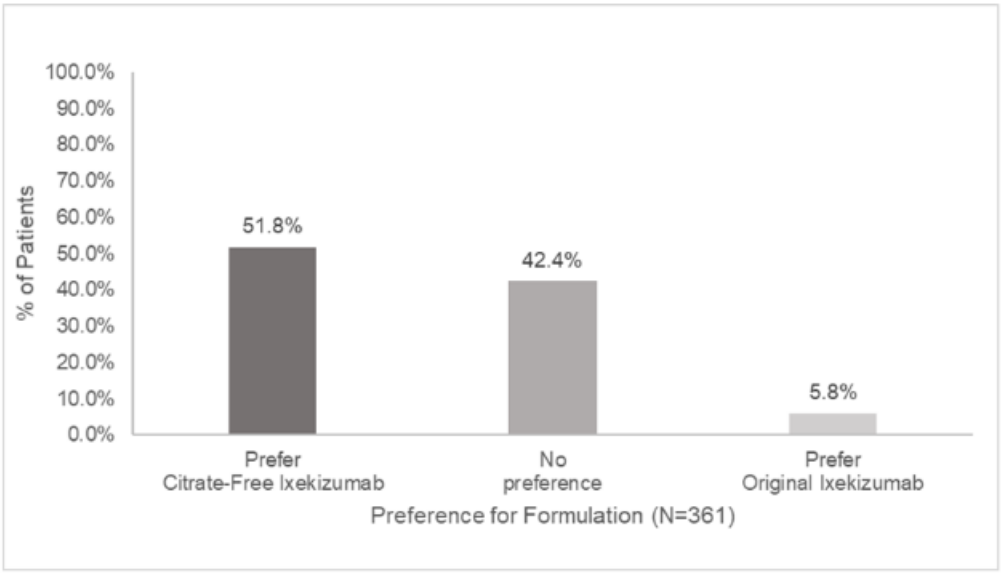


Figure 4. Preference for Ixekizumab by Formulation



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Abstract N°: 4393

Long-term clinical efficacy and safety of ixekizumab for psoriatic patients: a single-center experience

Jorge Santos Juanes*[1], Sebastián Reyes García[1], Jimena Carrero[1], Alvaro Nuñez[1], Marta López-Pando[1], Cristina Emilia Galache Osuna[1]

[1]Hospital Universitario Central de Asturias, Dermatology, Oviedo, Spain

Introduction & Objectives:

The effectiveness and security of ixekizumab have been proved in clinical trials. However, there is limited evidence over the real-world survival of apremilast in patients with psoriasis in the long term.

The main objective of this study is to evaluate the long-term survival of ixekizumab in patients diagnosed with plaque psoriasis in the dermatology department of our hospital and, as a secondary objective, to study the predictive factors for discontinuation.

Materials & Methods:

A retrospective hospital-based study, including collected data from 84 patients who were receiving ixekizumab between 15th June 2017 and 30th March 2023. Survival curves were approximated through the KaplanMeier estimator and compared using the log-rank test. Proportional hazard Cox regression models were used for multivariate analysis while both unadjusted and adjusted hazard ratios (HR) were used for summarizing the studied differences.

Results:

The average duration of the treatment before discontinuation was 40.64 months (95%CI 35.22-46.05). The retention rates were 88% (1 year), 72% (2 years), and 61% (5 years). No statistically significant difference was found between bio-naïve and bio-switch patients and weigh, gender, arthritis, and disease duration had no impact on the efficacy of the drug. Ixekizumab had a favorable safety profile, as we observed no major adverse events.

Conclusion:

This study confirms the efficacy and safety of ixekizumab in real-world clinical practice.

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Abstract N°: 4632

Cutaneous manifestations in patients receiving chimeric antigen receptor T-cell therapy

Álvaro Guerra Amor[1, 2], Berta Ferrer Fabrega[2, 3], Gloria Aparicio Español[1, 2], Ingrid López Lerma[1, 2], Cecilia Carpio Segura[4, 5], Gloria Iacoboni García-Calvo[4, 5], Lina Camacho-Arteaga[2, 6], Melissa Panesso Romero[2, 7], Laura Alonso García[2, 7], Pablo Marino Castro García[1, 2], Mario Sánchez Salinas[4, 5], Pere Barba Suñol[4, 5], Vicente García-Patos Briones[1, 2, 8]

[1]Vall d'Hebron University Hospital, Dermatology, Barcelona, Spain, [2]VHIR - Vall d'Hebron Institut de Recerca, Barcelona, Spain, [3]Vall d'Hebron University Hospital, Pathology, Barcelona, Spain, [4]Vall d'Hebron University Hospital, Hematology, Barcelona, Spain, [5]VHIO Vall d'Hebron Institut d'Oncologia, Barcelona, Spain, [6]Vall d'Hebron University Hospital, Clinical Pharmacology, Barcelona, Spain, [7]Vall d'Hebron University Hospital, Pediatric Oncology and Hematology, Barcelona, Spain, [8]Universitat Autònoma de Barcelona, Dermatology, Barcelona, Spain

Introduction & Objectives

Chimeric antigen receptor T-cell (CAR-T) therapy is a novel cell therapy that involves the use of modified autologous lymphocytes targeted against an antigen of interest. Skin manifestations appearing in patients undergoing CAR-T therapy are poorly characterized. The aim of our study is to describe clinical and histological cutaneous reactions observed in these patients.

Materials & Methods

We reviewed 172 patients who were infused with CD19-targeted CAR-T therapy in Vall d'Hebron University Hospital from February 2019 to May 2023. Patients that developed new cutaneous findings assessed by a dermatologist in the first year after infusion were included ambispectively.

Results

Sixteen patients, 10 men and 6 women with a median age of 59 years (range 5 – 77 years), presented with new-onset skin lesions. Fourteen patients had diffuse large B-cell lymphoma and 2 patients had acute lymphoblastic leukaemia. Thirteen patients were infused with 4-1BB-costimulated CARTs and 3 patients were infused with CD28-costimulated CARTs. Cytokine release syndrome occurred in 13 patients and immune effector cell-associated neurotoxicity syndrome was observed in 3 patients.

The median time to onset of skin lesions since infusion was 13 days. Seven patients presented with a maculopapular rash consisting of non-confluent papules and small oval pink plaques slightly edematous which was mostly transient and self-limiting. Skin biopsy was performed in 4 patients showing mild superficial perivascular lymphocytic infiltrates with eosinophils in 2 cases and dense lymphomatoid infiltrates with atypical lymphocytes and mitotic figures in the other two. For these latter, polymerase chain reaction analysis of the rearrangement of T-cell receptor showed a polyclonal pattern.

Five patients presented insect bite-like reactions, 4 patients in the form of multiple excoriated pruritic papules and 1 patient as a poorly demarcated single erythematous plaque. In all cases the biopsy showed superficial and deep perivascular lymphohistiocytic infiltrates with numerous eosinophils.

Two patients experienced erythema and edema in areas of previously unknown lymphoma infiltration, which were

histologically confirmed. One patient presented crusty papules clinically and histologically consistent with Grover disease. Cutaneous and intestinal acute graft-versus-host disease was observed in a patient who had previously undergone an allogeneic hematopoietic stem cell transplantation.

In most patients skin manifestations were completely resolved without treatment. Five patients were treated with topical corticosteroids, four patients received antihistamines for itch control and only two patients needed treatment with systemic corticosteroids.

Conclusion

In our case series, skin lesions in patients treated with CAR-T were infrequent and appeared mainly in the first two weeks after infusion, often following a cytokine release syndrome. Acute maculopapular rashes of non-confluent pink papules and small plaques were the most common form of presentation. When performed, the biopsy showed T-lymphocytic infiltrates of variable density with presence of eosinophils. Other less common manifestations observed included insect bite-like reactions of later onset, cutaneous flare reactions revealing underlying lymphoma infiltration, Grover disease and graft-versus-host disease. In most patients skin findings were mild and self-limiting.

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Abstract N°: 4739

Biologics for treatment of keloids and hypertrophic scars: a literature review

Rithi Chandy*[1], Aditi Chokshi[1], Hira Ghani[1], Steven Feldman[1]

[1]Wake Forest University School of Medicine, Center for Dermatology Research, Winston Salem, United States

Introduction & Objectives:

Although there are many treatment modalities for keloids and hypertrophic scars, most have high recurrence rates and limited efficacy. Biologics are being tested as treatments for these conditions.** This review aims to describe published efficacy and adverse event rates associated with existing biologics for keloid and hypertrophic scar treatment.

Materials & Methods:

A literature review using the PubMed and Google Scholar databases was conducted to evaluate biologics as treatments for keloids and hypertrophic scars. Combinations of search terms were used in both databases. Preliminary search yielded a total of 637 results from both databases combined, out of which 20 studies were selected after screening the titles and abstracts. One randomized control trial (RCT), one case series, and five case reports were reviewed.

Results:

In the RCT, etanercept improved 5/12 parameters with greater efficacy in pruritus reduction compared to triamcinolone acetonide (TAC) injections, while TAC improved 11/12 parameters with better cosmetic results. In a case series of eight patients with keloids treated with dupilumab, seven experienced disease progression. Of five case reports evaluating the role of dupilumab in keloid treatment, one patient had a 50% reduction in keloid size, one had pain reduction, and two had disease progression. In a case report of a patient with hypertrophic scar treated with dupilumab, the patient had both resolution of pruritus and reduction in scar size.

Conclusion:

Although the current gold standard for keloid treatment is TAC injections, biologics may provide a treatment option for symptomatic relief and size reduction in patients with severe keloids and hypertrophic scars refractory to other therapies.

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Abstract N°: 4876

Anaphylactic reaction in a patient treated with infliximab for severe plaque psoriasis.

Maja Ostrowska[1], Waldemar Placek[2], Agnieszka Owczarczyk-Saczonek[2]

[1]Municipal Polyclinical Hospital in Olsztyn, Department of Dermatology, Sexually Transmitted Diseases and Clinical Immunology, Olsztyn, Poland, [2]University of Warmia and Mazury, Department of Dermatology, Sexually Transmitted Diseases and Clinical Immunology, University of Warmia and Mazury, Olsztyn, Poland, Olsztyn, Poland

Introduction & Objectives:

Materials & Methods:

Results:

Biological drugs have revolutionized the treatment of many immune-related diseases, including moderate and severe plaque psoriasis that cannot be successfully treated with conventional treatments. When starting therapy with biologics, tumor necrosis factor alpha inhibitors (anti-TNF-alpha) are usually the first drugs of choice. Medicines from this group are not only highly effective but also have a high safety profile. We want to present a case of 67-year-old patient who was admitted to the Department of Dermatology to receive the third dose of infliximab in a new treatment cycle. Previously, the patient was treated with a medication containing the same active substance, but from a different manufacturer, for a period of 2 years. About five minutes after the start of infliximab infusion we observed increased inspiratory and expiratory dyspnoea, tachycardia, blood pressure fluctuations, decreased consciousness, sweating, pallor and oedema of face. The infusion was immediately discontinued due to anaphylactic reaction following infliximab administration. It should be remembered that drugs, including biological ones, are the most common cause of anaphylactic reactions in adult patients.

Conclusion:

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Abstract N°: 4897

Drug survival of patients with psoriasis, who underwent a non-medical mandatory switch from Adalimumab originator to either of the two biosimilar biologics Adalimumab SB5/GP2017 with a year follow-up period using a nationwide cohort study.

Johan Sieborg*[1], David Thein[1], Julia-Tatjana Maul[2], Jashin Wu[3], Nikolai Loft[4], Tomas Dam[5], Lars Bryld[6], Trine Bertelsen[6], Simon Thomsen[1], Alexander Egeberg[1]

[1]Bispebjerg Hospital, Department of Dermatology, Copenhagen, Denmark, [2]University of Zürich, Department of Dermatology, Switzerland, [3]Dermatology Research and Education Foundation, Irvine, United States, [4]Copenhagen University Hospital - Herlev and Gentofte, Department of Dermatology and Allergy, Copenhagen, Denmark, [5]Dermatology Clinic, Nykøbing Falster, Denmark, [6]Aarhus University Hospital, Department of Dermatology, Aarhus, Denmark

Introduction & Objectives:

Biosimilars are designed to be clinically analogous to the biologic originators, leading to frequent comparisons between the biosimilar and the original biologic drug. However, although multiple adalimumab biosimilars have been introduced to market, there is still a lack of comprehensive research on the potential performance differences between different biosimilars in patients with psoriasis.

The objective of this study was to compare the one-year drug survival between two adalimumab biosimilars GP2017 and SB5 following a non-medical mandatory switch from adalimumab originator.

Materials & Methods:

Based on the national clinical database, we included all patients with psoriasis treated with adalimumab originator (DERMBIO, 2007-2019) who underwent a non-medical mandatory switch to either GP2017 or SB5. The biosimilars were prescribed pseudo-randomly and based on geographic locations as patients in eastern Denmark (The Capital Region and Region Zealand) were prescribed GP2017 and patients in western Denmark (Region North, Middle and South) were prescribed SB5. The methods adopted for comparing drug survival were a Kaplan-Meier curve for unadjusted drug-survival and a Cox regression adjusting for sex, age, treatment series, prior treatment duration and psoriatic arthritis (PsA). The mean Psoriasis Area and Severity Index (PASI) score before and after the switch was utilized as an indicator of drug effectiveness.

In a sensitivity analysis the biosimilars SB5 and GP2017 were compared to the originator using a propensity score matching (1-to-1 without replacement) based on sex, age, number of treatments with biologics and PsA.

Results:

We included 525 patients of which 267 received GP2017, and 258 received SB5. We found that the adalimumab biosimilars GP2017 and SB5 demonstrated equal drug survival after the first year of follow-up during a head-to-head comparison. Using the Cox-regression, we found that male sex was associated with a decreased risk (Hazard ratio [HR] 0.40, 95% confidence interval [CI] 0.22-0.71) while the PASI-score before and after the switch did not indicate any differences in drug effectiveness.

The matched patient cohort ended up with 450 patients, which was matched from a pool of 712 patients. In the sensitivity analysis, the matched patient cohort, when compared to the switcher cohort, demonstrated equal drug survival between the two biosimilars GP2017 and SB5, and the originator. Based on the Cox-regression, we found

a decreased risk for males (HR 0.43, 95% CI 0.26-0.71) while a higher number of prior treatment series increased the rate of drug discontinuation for both 2 treatment series (HR 2.95, 95% CI 1.12-3.78) and ≥3 (HR 3.51, 95% CI 1.92-6.40).

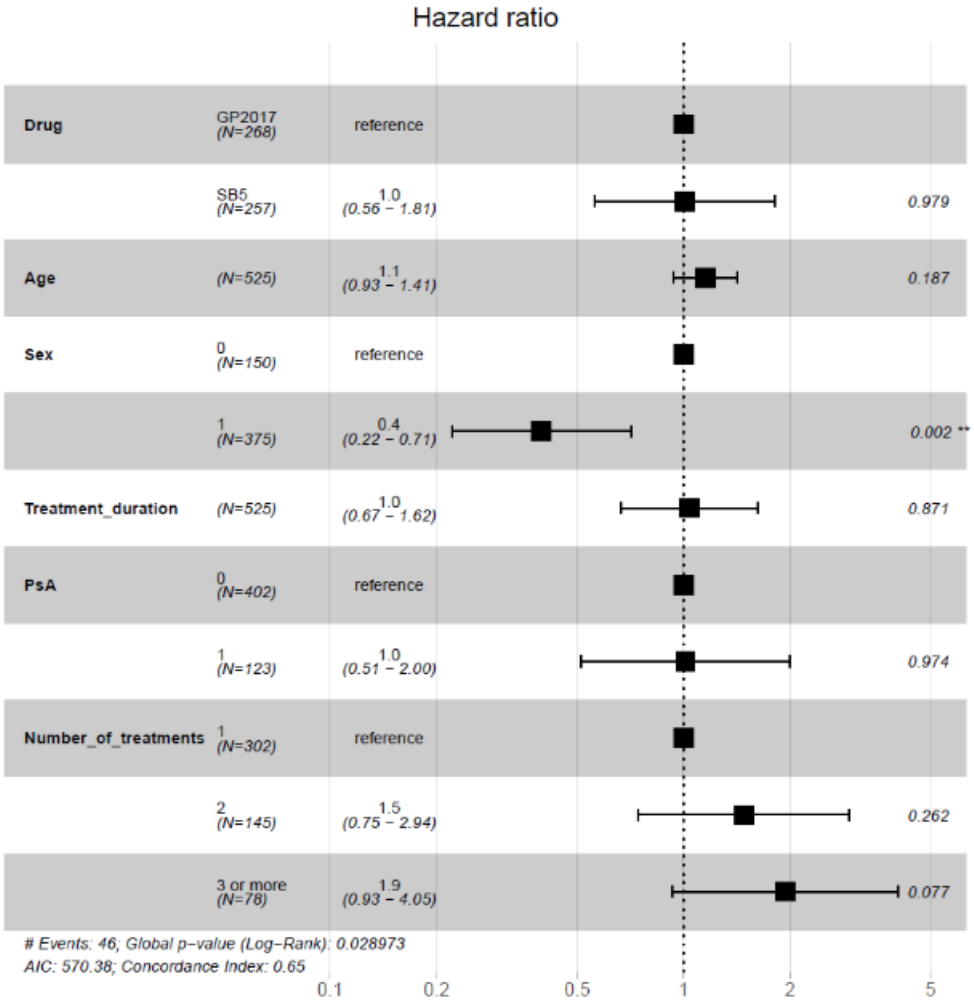

Figure 1: Forrest plot of Cox-regression for the two biosimilars GP2017 and SB5, which is adjusted for age, sex, prior treatment duration, psoriatic arthritis (PsA) and number of biologic treatments.

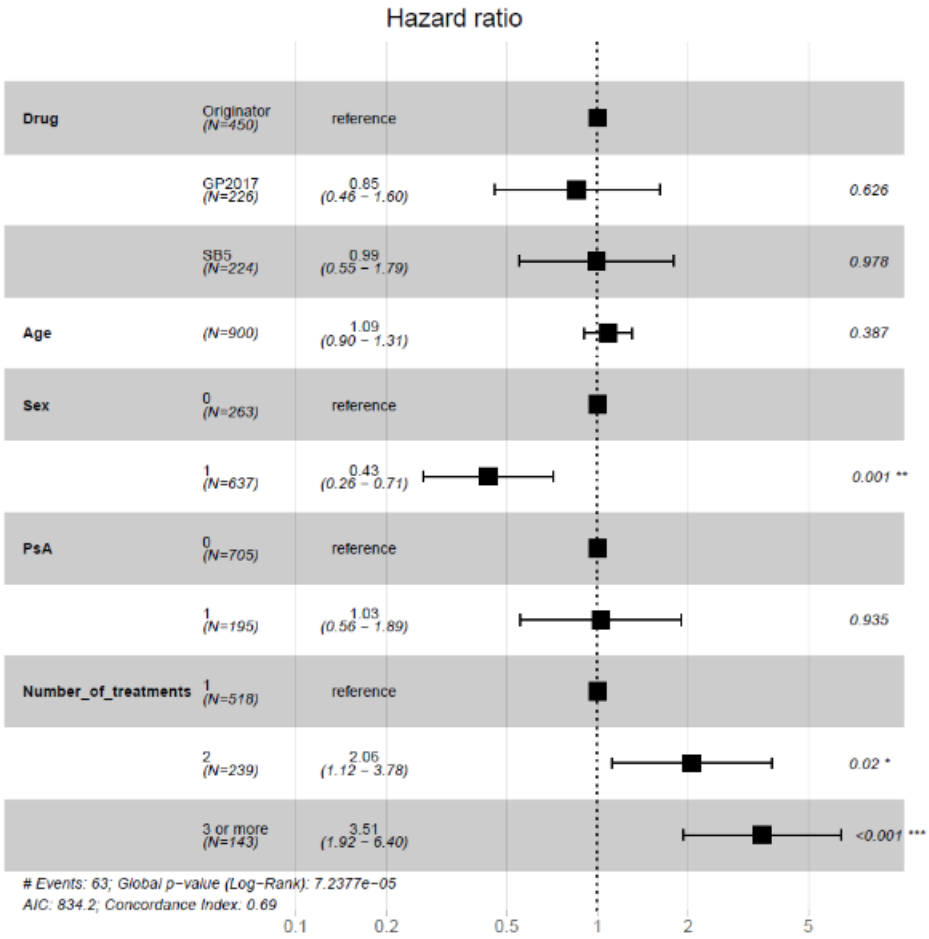

Figure 2: Forest plot of the Cox-regression for the originator biologic adalimumab and the two biosimilars GP2017 and SB5, which is adjusted for age, sex, psoriatic arthritis (PsA) and number of biologic treatments.

Conclusion:

Following a non-medical mandatory switch from adalimumab originator to the biosimilar GP2017 and SB5, no differences were found in drug effectiveness. Additionally, no differences in drug survival were observed when comparing the originator cohort with the two biosimilars GP2017 and SB5 cohorts.

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Abstract N°: 5025

Biologics-treated psoriasis: predictors of therapy effectiveness and monitoring of treatment-resistant areas

Neda Delic*[1, 2], Aleksandra Gojkovic[1], Maja Vilotijevic[1, 2], Jelena Peric[1, 2], Dusan Skiljevic[1, 2]

[1]University of Belgrade - Faculty of Medicine, Belgrade, Serbia,[2]University Clinical Centre of Serbia, Clinic of Dermatovenerology, Belgrade, Serbia

Introduction & Objectives: There are still no reliable clinical nor laboratory biomarkers that could predict the response to biological therapy of psoriasis with adequate certainty. Additionally, there is scarce longitudinal data on recalcitrant psoriasis and difficult-to-treat areas in psoriasis treated with these agents. Our aim was to determine whether clinical and/or laboratory findings could predict the response to secukinumab and ustekinumab in our patient population, as well as to identify areas of treatment-resistant psoriasis in real-life single-center clinical practice.

Materials & Methods: This retrospective cohort study included 62 consecutive biologics-naïve male patients with psoriasis treated with ustekinumab or secukinumab in our tertiary center. Anamnestic data, risk factors, metabolic profile, laboratory parameters, disease activity and severity indices and body area involvement data were taken from patients' histories before therapy initiation and 52±4 weeks after the start of treatment.

Results: Age at treatment initiation, presence of comorbidities, history of smoking, initial Psoriasis Area and Severity Index (PASI) and Dermatology Life Quality Index (DLQI), total bilirubin and erythrocyte sedimentation rate (ESR) levels were singled out as parameters that correlated with response to therapy. Patients with initial lesions localized on the trunk and higher PASI scores were more likely to achieve PASI 90 at the annual check-up. Logistic regression model employing age over 50 at treatment initiation, history of smoking, raised total bilirubin and ESR proved significant in predicting the absence of PASI 100 response (p=0.010, Naegelkerke R2=0.303, correctly classified 71.2%), with only high ESR being a significant negative predictor of achieving PASI 100 at the annual check-up (p=0.047, OR 0.216, 95% CI 0.048-0.977). Toenails (33.3%), fingernails (23.6%) and shins (22.2%) were most commonly affected with treatment resistant psoriasis after one year of therapy. Having in mind the initial frequencies of involvement, these areas were also the most difficult to treat, in addition to axillae, palms and soles.

Conclusion: Our study showed that only a few parameters significantly correlated with the response to biological therapy. Increased ESR stood out as the only significant negative predictor of achieving clear skin at the annual control. These findings contribute to the view that clinical parameters alone are not sufficiently reliable nor convincing in predicting the response to biological therapy of psoriasis, but rather their combination with newer molecular technologies might prove successful. Toenails, fingernails and shins were the most common areas of recalcitrant psoriasis.

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Abstract N°: 5032

Psoriatic patients with T-SPOT positive treated with biologics

Nichang Fu*[1], Xue-Yan Chen[1], LI-Ran Ye[1], Xiaoyong Man[1]

[1]Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China, Dermatology

Introduction & Objectives: Real-world date on treatment patterns associated with use of biologics in T-SPOT positive psoriasis patients are lacking but significant. We sought to estimate and compare the feasibility, efficacy and safety between T-SPOT positive individuals using anti-TNFα and non-anti-TNFα inhibitors in clinical practice.

Materials & Methods: T-SPOT positive patients with moderate-to-severe psoriasis who received biologics treatment in our hospital between 2018 and 2022 were included in this single-center, uncontrolled, prospective, observational study. To assess the efficacy and reactivation of latent tuberculosis infection (LTBI) during treatment process, PASI and BSA score, as well as the results of T-SPOT.TB assay were mainly analyzed.

Results: 39 anti-TNFα inhibitor (32 males and 7 females; median age, 44.77±13.24 at first biologic cycle) and 24 other biologics (20 males and 4 females; median age, 40.33±14.36 at first biologic cycle) users were enrolled. All participants were diagnosed with psoriasis, including plaque psoriasis (n = 62) and pustular psoriasis (n = 1), and everyone was admitted to the tuberculosis hospital or the pneumology department of our hospital. Except 13 patients receiving anti-TB oral medicine, the results of T-SPOT.TB assay, including ESAT-6 and CFP-10, were no significant change during using TNF inhibitors, while these laboratory indexes both decreased after other biologics treatment. In addition, during follow-up, all patients achieved scores above PASI 50. The average time to reach PASI 50 was 4.63 ± 1.89 and 4.40 ± 3.59 weeks in patients treated with TNFα and non-TNFα inhibitors respectively, as well as 73.91% and 90.91% of these patients achieved PASI 90 at week 36.

Conclusion: The study demonstrated the safety and efficacy of biologics, whatever TNFα or non-TNFα inhibitors, in psoriasis patients with T-SPOT positive results.

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Abstract N°: 5229

Induced sarcoidosis-like reaction in a patient receiving dabrafenib and trametinib: a case report

Giulia Greta Dradi[1], Marta Menendez Sanchez[1], Joseph Simon Griffiths Acha[1], Diego De la Vega Ruiz[1], Alejandra Mendez Valdes[1], Sara De Benito Mendieta[1], Ana Pampín Franco[2], Fernando Pinedo Moraleda[2], Claudia Sarró Fuente[1], Elena Naz Villalba[1], José Luís López Estebaranz[1]

[1]Hospital Universitario Fundación Alcorcón, Dermatology, Alcorcón, Spain, [2]Hospital Universitario Fundación Alcorcón, Pathology, Alcorcón, Spain

Introduction & Objectives:

Dabrafenib and trametinib, targeted therapies used in the treatment of metastatic melanoma, have been associated with various cutaneous adverse events. Here, we report a case of a 44-year-old woman with stage 4 melanoma who developed panniculitis-like lesions on both legs during dabrafenib and trametinib treatment, histologically resembling sarcoidosis.

Materials & Methods:

The patient had a mutation on CDKN2A gene and received dabrafenib and trametinib as second line for advanced melanoma with complete metabolic response and optimal tolerance. However, after 5 months, she presented with painful tender subcutaneous nodules on both legs. Histopathological analysis of a skin biopsy revealed lobulillary panniculitis with non-caseating granulomas consistent with sarcoidosis. A whole-body PET-CT scan demonstrated bilateral axillary adenopathies, which upon further analysis exhibited a diffuse unspecific lymphoid infiltrate without granulomatous features. Additionally, the patient's C reactive protein (PCR) was elevated as well as angiotensin converting enzyme (ACE). Pulmonary function tests were normal. The patient was treated with a course of medium dose steroids with optimal response and no recurrence to date.

Results:

The occurrence of sarcoidosis-like reactions in patients treated with targeted therapy such as dabrafenib and trametinib is a rare but recognized adverse event. In this case, the clinical presentation, histological findings, and elevated ACE were consistent with an induced sarcoidosis-like reaction. The absence of granulomas in the lymph nodes suggests a reactive lymphoid infiltrate rather than true sarcoidosis.

Conclusion:

Awareness of the potential development of sarcoidosis-like reactions during treatment with melanoma targeted therapy is crucial, as these reactions can mimic true sarcoidosis and may lead to unnecessary diagnostic and therapeutic interventions. Sarcoidosis and sarcoidlike reactions occur more often because of treatment with immunotherapy; however, some cases have been described in connection to BRAF inhibitors, alone or combined with MEK inhibitors. Clinicians should consider this possibility when evaluating patients receiving these targeted therapies and promptly initiate appropriate investigations to differentiate between induced sarcoidosis-like reactions and true sarcoidosis. Further studies are warranted to better understand the pathophysiology and risk factors associated with these reactions, allowing for optimal management strategies in affected patients.

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Abstract N°: 5287

Checkpoint inhibitor associated bullous cutaneous immune related adverse events: a multi-centre observational study

Anusuya Kawsar[1, 2, 3], Charlotte Edwards[2], Pooja Patel[3], Richard Heywood[4], Jasmine Mann[2], Christopher Harland[2], Kara Heelan[2], James Larkin[2], Paul Lorigan[4], Catherine Harwood[3], Rubeta Matin[5], Louise Fearfield[1, 2]

[1]Chelsea and Westminster Hospital, United Kingdom, [2]The Royal Marsden Hospital, United Kingdom, [3]Barts Health NHS Trust, United Kingdom, [4]The Christie NHS Foundation Trust, United Kingdom, [5]Oxford Health NHS Foundation Trust, United Kingdom

Introduction & Objectives:

Checkpoint inhibitor therapy (CPI) has significantly improved overall survival in several cancers including metastatic melanoma (MM) and in the adjuvant setting. Cutaneous immune-related adverse events (irAEs) secondary to CPI are commonly observed, however autoimmune blistering disorders such as bullous pemphigoid (BP) are rare. To review the prevalence, incidence risk, clinicopathological features and management of bullous cutaneous irAEs toxicity associated to CPI therapy.

Materials & Methods:

A multicentre, retrospective, observational study of CPI associated bullous irAEs in adults with all cancers across four UK specialist centres between 2006-2019.

Results:

7391 patients were identified. CPI associated bullous irAEs including BP (n=16) occurred in 0.3% (n=22). Median age of onset was 76 years old with male preponderance. Most patients had cutaneous melanoma (73%, n=16) of which 81% (13/16) were BRAF wildtype. Grade 1,2,3,4 skin toxicity occurred in 9% ,45%, 41%,4% respectively. The mucosae were involved in 27% and 25% of confirmed BP cases did not present with bullae. Median time to onset of bullous irAEs was 12 months, with median total symptom duration of 6 months. Single PD-1/PD-L1 agents had a longer time to onset of symptoms compared with combination therapy (median 12 months versus 7 months, respectively). 91%, 64%, 9% of patients required one, two or three lines of treatment respectively. Two cases occurred after completion of CPI (1 and 3 months). Of the 20 cases which presented whilst on CPI this was permanently discontinued in 55% (11/20) and temporarily held in 20% (4/20). In the four held CPI cases, bullous eruption re-flared in 50%.

Conclusion:

CPI associated bullous skin toxicity is a rare cutaneous irAE occurring in approximately 0.3% over 13 years of treated patients in this series. Not all cases are diagnostic of BP, but management remains the same. There is a prolonged latency of onset compared to other cutaneous irAEs, with a median time of 12 months and it can occur after cessation of therapy. Discontinuation of CPI's may be required. Recognising bullous irAEs promptly and referral to dermatology is essential to optimise management and improve patient outcomes and tumour responses.

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Abstract N°: 5336

Novel intravenous stem cell therapy to systematically target overall wound burden of RDEB patient

Dimitra Kiritsi*[1], Kathrin Dieter[2], Cristina Daniele[2], Cristoph Ganss[2], Mark A. Kluth[2]

[1]University of Freiburg, Department of Dermatology, Medical Center,[2]RHEACELL GmbH & Co. KG, Heidelberg, Germany

Introduction & Objectives: Recessive dystrophic epidermolysis bullosa (RDEB) is a rare, severe genodermatosis in which the absence of functional collagen 7 causes extreme fragility of skin and mucous membranes. Patients suffer from painful and itchy chronic and recurrent blisters and wounds of skin and mucosa. The continuous cycles of blister formation, healing processes, and chronically damaged tissue trigger systemic inflammatory cascades and lead to the accumulation of irreversible tissue damage. Effective curative therapies targeting the genetic defect are not available for clinical routine care so far, which constitutes an urgent need for disease-modifying treatments that effectively improve defective wound healing and alleviate bothering symptoms such as itch and pain. The current understanding of RDEB as a systemic inflammatory disease rather than a skin-limited disorder has stimulated the investigation of cell-based therapies including mesenchymal stromal cells (MSCs). Such cells, namely ABCB5+ MSCs have been shown to possess high homing and engraftment potential in damaged tissues, where they initiate anti-inflammatory and healing processes. Moreover, systemically infused MSCs allow a wholistic approach by targeting the overall disease burden of the patient. In a recent clinical trial three intravenous infusions of the skin-derived ABCB5+ MSCs to 14 patients with RDEB have been shown to alleviate the overall disease burden (such as itch), facilitated complete and durable wound closure of pre-existing wounds and have a stabilizing effect on the development of new wounds.

Efficacy and safety of ABCB5+ MSCs in RDEB was assessed in a first-in-human phase I/IIa

Materials & Methods: 16 RDEB patients (4-36 years) received 3 infusions of 2×106 ABCB5+ MSCs/kg at 2.5-week intervals.

Results: 168 pre-existing wounds were followed-up over 12 weeks showing increased healing. 68% of wounds completely closed and approximately 75% of them remained closed for ≥7 or ≥9.5 weeks, significantly longer than the mean recurrence period of 3 weeks typical for RDEB wounds.

Moreover, evaluation of 174 new wounds showed a decrease in new wound development as well as fast healing of new wounds under therapy. This data suggests a systemic healing-promoting and skin-stabilizing effect. The improved wound situation also was associated with a clinically significant reduction in disease activity and significant itch relief.

Conclusion: Treatment with ABCB5+ MSCs allows targeting of the overall disease spectrum of RDEB. Data so far showed that the cell therapy promoted wound healing, reduced disease severity, alleviated itch and had an overall stabilizing effect on the patients' wound situation. Given the progressive disease nature of RDEB, it is expected that the reduction in disease activity, beyond relief of acute symptoms, could slow the accumulation of external and internal tissue damage. Hints to that are already observed in animal models, were cell injections not only reduced inflammatory factors but also fibrosis. In addition, deposition of collagen 7 could improve the structural integrity of skin and mucous membranes. Overall, the present data present ABCB5+ MSCs as a novel systemic therapeutic approach that combines disease-modifying and corrective treatment strategies.

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Abstract N°: 5346

Durvalumab-associated generalized morphea

Noelia Medrano Martínez[1], Luis Jiménez Briones[1], Daniel Vírseda González[1], María Córdoba García-Rayo[1], Belén Rodríguez Sánchez[1], Jorge Martín-Nieto González[1], Jose Antonio Avilés Izquierdo[1]

[1]Hospital General Universitario Gregorio Marañón, Dermatology, Madrid, Spain

Introduction:

Durvalumab is a fully human monoclonal IgG1κ antibody targeting programmed cell death receptor 1 inhibitor ligand (PD-L1), which is upregulated in cancer cells and whose interaction with PD-1 downregulates the T-cell response, therefore allowing the evasion of the host immune system. It was first approved in 2017, is currently used to treat lung cancer and is being investigated in monotherapy or in combination for many other malignancies. Cutaneous immune-related adverse events (irAEs) reported to date include lichenoid dermatitis, granulomatous skin reactions, psoriasis, bullous pemphigoid, dermatomyositis and one single case of generalized morphea.

Clinical case:

We present a 69-year-old male, with no prior history of autoimmune disease, who was started on durvalumab within a clinical trial as a first-line treatment for an advanced squamous lung cell cancer.

He consulted eight months afterwards for the development of indurated and hyperpigmented well-defined plaques on pressure areas at the pelvic girdle and the thighs, with subsequent extension to other parts of the trunk and the extremities.

Histologic features from punch biopsy showed skin and subcutis with squared silhouette, diffuse dermal fibrosis with thickened collagen, atrophic adnexal structures, sparse superficial perivascular lymphocytic infiltrate and mild oedema in the papillary dermis; findings consistent with morphea.

He was indicated to apply mometasone 1% cream nightly for a month, then twice weekly whilst on immunotherapy, experiencing stabilisation and later notable improvement after discontinuation.

Discussion:

The only other patient reported in the literature was a 60-year-old woman with stage IIIA lung adenocarcinoma who underwent cisplatin and pemetrexed, followed by maintenance with durvalumab for over one year. She developed scleroderma seven months afterwards completion, alongside with superimposed vitiligo and myasthenia gravis. She was started on mycophenolate mofetil and UV-A1 phototherapy. Five months into this regimen, she reported mild improvement in the range of motion and stable sclerosis.

More data are available regarding the PD-1, such as nivolumab and pembrolizumab, including reports of four cases of morphea and of sclerodermoid reactions respectively. Given its shared mechanism of action similar irAEs may be anticipated. These clinical cases presented with unusual features, especially the frequent axial involvement that secondary extended to proximal limbs. Also, skin changes were different between both drugs.

Conclusion:

Immune checkpoint inhibitors have revolutionized the treatment of cancers, especially metastatic melanoma, non-

small cell lung carcinoma and renal carcinoma. The long-term side effects of these agents remain to be determined. The spectrum of irAEs is still being dismembered and it would be of value to identify biomarkers or unique gene profiles that help to predict them. These models would optimize informed decision-making between medical teams and patients regarding the risks and benefits of this therapeutic options. Some studies have suggested its association with improved cancer outcomes.

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Abstract N°: 5398

Mnemonic aids for therapeutic monoclonal antibodies and small molecules

Jie Zhu[1], Valentina Hongler[1], Lorena Merlo[1], Veronika Schmidt[1], Simon Mueller[1]

[1]University Hospital Basel, Department of Dermatology, Basel-Stadt, Switzerland

Introduction & Objectives:

Over the past 15 years, an ever-growing number of novel targeted therapies, including monoclonal antibodies and small molecules, to treat various skin conditions have been developed and approved by healthcare authorities in many countries worldwide. However, given this abundancy, it can be challenging to keep track of dozens of new names - some memory tools, such as mnemonics, are therefore needed. Therefore, we aim to provide some word mnemonics and corresponding pictures that may facilitate memorizing the names of therapeutic monoclonal antibodies and small molecules in dermatology.

Materials & Methods:

To make a word mnemonic, the first letter(s) of each drug in a class are arranged to form a phrase or sentence. Furthermore, two artificial intelligence (AI) text-to-picture systems, Midjourney (https://docs.midjourney.com/) and DALL·E 2 (https://openai.com/product/dall-e-2), were used to generated images based on the word mnemonics.

Results:

In Table 1 we provide an overview of monoclonal antibodies and small molecules that are currently either already approved by the FDA (U.S. Food and Drug Administration) and/or EMEA (European Medicines Agency), or for which phase III study results are available (source: clinicaltrials.gov). Additionally, for each class, we have suggested a mnemonic in words and created a corresponding picture. For example, the suggested mnemonic for IL-13 inhibitors, “13 days travelling in Lebanon”, has “13” representing the target IL-13, “tra” representing tralokinumab, “Leb” representing lebrikizumab. The corresponding picture shows a calendar with 13 dates marked and many iconic sites in Lebanon. In the mnemonic for BRAF inhibitors, “Brave vampires encouraged Debora”, “brave” represents the target BRAF, “vam” represents vemurafenib, “encoura” represents encorafenib, and “Debora” represents dabrafenib. The associated picture illustrates a scene where Debora, a brave young woman, is surrounded by friendly vampires who are ready to assist her in the upcoming fight.

Conclusion:

The present study proposes potential mnemonics to aid in the memory of the names of targeted therapies in dermatology.

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Abstract N°: 5450

Dupilumab Improves Itch and Urticaria Activity in Omalizumab-Naïve Patients Regardless of Baseline Disease Severity, Disease Duration, or Background Medication: LIBERTY-CSU CUPID Study A

Ana Giménez-Arnau[1], Marcus Maurer[2, 3], Thomas Casale[4], Sarbjit S. Saini[5], Moshe Ben-Shoshan[6], Allen Radin[7], Jennifer Maloney[7], Eric Mortensen[7], Deborah Bauer[8], Elizabeth Laws[8], Kiran Patel[8]

[1]Hospital del Mar, Institut Mar D'Investigacions Mediques, Universitat Autònoma y Universitat Pompeu Fabra, Barcelona, Spain, [2]Institute of Allergology, Charité – Universitätsmedizin Berlin, corporate member of Free University of Berlin and Humboldt University of Berlin, Berlin, Germany, [3]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Berlin, Germany, [4]University of South Florida, Tampa, United States,[5]Johns Hopkins Asthma and Allergy Center, Baltimore, United States, [6]McGill University Health Centre, Montreal, Canada, [7]Regeneron Pharmaceuticals Inc., Tarrytown, United States,[8]Sanofi, Bridgewater, United States

Introduction & Objectives: Chronic spontaneous urticaria (CSU) is a chronic inflammatory disease characterized by wheals, angioedema, or both that recur for > 6 weeks. Urticaria activity in CSU can range from mild to severe. In most cases, CSU spontaneously resolves within 2–5 years, but for approximately 20% of patients, it can persist for > 5 years. Many patients continue to experience substantial disease burden despite treatment with H1-antihistamines (H1-AH), the standard-of-care for CSU.

Materials & Methods: LIBERTY-CSU CUPID Study A (NCT04180488) was a randomized, placebo-controlled, phase 3 trial of dupilumab treatment up to 24 weeks in omalizumab-naïve adults, adolescents, and children aged ≥ 6 years with CSU who remained symptomatic despite use of standard-of-care AH. Patients on H1-AH (up to 4-fold approved dose) were randomized to receive add-on dupilumab 300 mg (adults/adolescents ≥ 60 kg) or 200 mg (adolescents < 60 kg/children ≥ 30 kg) (n = 70) or matching placebo (n = 68) subcutaneously every 2 weeks. Efficacy endpoints included Itch Severity Score over 7 days (ISS7), Hive Severity Score over 7 days (HSS7), and Urticaria Activity Score over 7 days (UAS7), a composite report of itch and hive activity scores. Although Study A was not powered for statistical analysis of efficacy across subgroups, subgroup comparisons were made to describe trends in efficacy based on the following baseline characteristics: urticaria activity (UAS7 score < 28 or ≥ 28), background medication (H1-AH standard dose or 2- to 4-fold dose), and disease duration (0–2 years, 2–10 years, > 10 years).

Results: At Week 24, least squares (LS) mean change in ISS7 (range: 0–21; dupilumab vs placebo) was −10.2 vs −6.0 (P = 0.0005); UAS7 (range: 0–42) was −20.5 vs −12.0 (P = 0.0003). Subgroup comparisons revealed a numerical trend toward greater efficacy in patients with higher baseline disease activity; LS mean change in ISS7 (dupilumab vs placebo) was −8.7 vs −5.0 for patients with UAS7 < 28 and −11.3 vs −6.7 for patients with UAS7 ≥ 28; LS mean change in UAS7 was −14.4 vs −9.2 for patients with UAS7 < 28 and −22.6 vs −13.7 for patients with UAS7 ≥ 28. A numerical trend toward greater efficacy was also seen in patients with increased baseline H1-AH dose; LS mean change in ISS7 was −9.3 vs −6.7 for patients with standard dose and −11.1 vs −4.9 for those with a 2- to 4-fold dose; LS mean change in UAS7 was −18.5 vs −12.3 for patients with standard dose and −23.2 vs −11.3 for those with a 2- to 4-fold dose. A numerical trend toward greater efficacy was also seen with longer baseline disease duration; LS mean change in ISS7 was −9.8 vs −6.6, −9.6 vs −5.6, and −12.9 vs −4.7 for patients with a disease duration of 0–2, 2–10, and > 10 years; LS mean change in UAS7 was −20.3 vs −13.9, −18.9 vs −11.4, and −25.0 vs −7.6. The occurrence of treatment-emergent adverse events (TEAEs) for dupilumab vs placebo was 35 (50.0%) vs 40 (58.8%); injection-site reactions, 4 (5.7%) vs 2 (2.9%); conjunctivitis, 0 vs 1 (1.5%); serious TEAEs, 2 (2.9%) vs 5 (7.4%).

Conclusion: Patients with CSU treated with dupilumab experienced significant reduction in itch severity and urticaria activity, as measured by ISS7 and UAS7. A reduction in itch severity and urticaria activity was observed across dupilumab-treated CSU subpopulations, with a numerical trend for greater efficacy in patients with higher disease activity, increased H1-AH dose, and longer disease duration. Dupilumab was well tolerated, and overall safety was consistent with the known dupilumab safety profile.

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Abstract N°: 5586

Remission achieved in tongue graft-versus-host disease through the use of ruxolitinib.

Katerina Grafanaki*[1], Dimitrios Tsokanas[2], Eleftheria Vryzaki[1], Sophia Georgiou[1], Maria Liga[2]

[1]University of Patras, Department of Dermatology, Patras, Greece,[2]University of Patras, Bone Marrow Transplantation Unit, Patras, Greece

Introduction & Objectives: Graft-versus-host disease (GvHD) is a frequently encountered and potentially life-threatening complication of allogeneic hematopoietic stem cell transplantation (allo-HSCT). Among the long-term challenges associated with allo-HSCT, chronic GvHD is particularly significant, yet its underlying mechanisms are not fully understood. In this case report, we describe the experience of a young adult male diagnosed with primary refractory Hodgkin's Lymphoma who underwent a transplant and subsequently developed cutaneous GvHD following donor lymphocyte infusion, which was managed with cyclosporine and steroids.

Materials & Methods: Following the administration of donor lymphocyte infusions (DLI), the patient experienced graft-versus-host disease (GvHD) affecting the skin. This skin GvHD was managed using a combination of cyclosporine and corticosteroids. While the patient was receiving immunosuppressive therapy, the presence of diffuse confluent whitish patches on the tongue was observed. Lichenoid changes, white patches, hyperkeratotic plaques, and limited oral range of motion are commonly seen diagnostic features of oral chronic GvHD, particularly in individuals with sclerotic manifestations of skin GvHD. It is crucial to maintain a high level of clinical suspicion for the diagnosis of oral chronic GvHD, and confirmation through skin biopsy serves as an important step in this process.

Results: Histopathological analysis of the tongue lesions indicated the presence of lichenoid, hyperkeratotic tissue changes along with intraepithelial T-cell infiltration, consistent with a diagnosis of chronic graft-versus-host disease (GvHD). Initially, the patient underwent a 6-month treatment course with mycophenolate mofetil, which resulted in limited improvement of the lesions. Subsequently, ruxolitinib therapy was initiated, leading to complete resolution of the tongue lesions. After five months, ruxolitinib treatment was discontinued. At present, five years following the allo-HSCT, the patient's overall condition remains excellent, and there is no evidence of tongue GvHD, with complete remission achieved without the need for ongoing immunosuppressive treatment.

Conclusion: Patients who develop glucocorticoid-refractory graft-versus-host disease (GvHD) following allogeneic hematopoietic stem cell transplantation (allo-HSCT) often experience unfavorable outcomes. However, there is emerging evidence suggesting the potential efficacy of ruxolitinib, a selective inhibitor of Janus kinases (JAK1 and JAK2), in patients with glucocorticoid-refractory acute and chronic GvHD. During GvHD, alloreactive donor T cells become activated, leading to an immune response that mistakenly attacks healthy recipient tissues instead of targeting tumor cells. JAKs are intracellular signaling molecules that play a significant role in regulating the activation of various immune cell types involved in the pathogenesis of GvHD, including T cells. Notably, despite their role in GvHD regulation, preclinical studies indicate that JAK inhibition preserves the graft-versus-leukemia activity.

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Abstract N°: 5603

ANB032, a novel BTLA agonist monoclonal antibody, inhibits T cell proliferation, reduces inflammatory cytokines, and down modulates BTLA expression on circulating T and B cells: Results from a first-in-human Phase 1 study

Kenneth Luu[1], Bruce Randazzo[1], Eric Hare[1], Matthew Hsu[1], Chris Haines[1], Martin Dahl[1], Cailin Sibley[1], Paul Lizzul*[1]

[1]AnaptysBio, Inc, San Diego, United States

Introduction & Objectives:

BTLA is a key checkpoint receptor expressed across a range of activated immune cells, such as T-cells, B-cells and dendritic cells (DC), that drive inflammatory diseases. ANB032, a BTLA agonist antibody, has the potential to modulate all phases of the pathogenic inflammatory response and to have broad applicability to inflammatory diseases where the BTLA pathway is dysregulated. In preclinical studies, ANB032 inhibited activated T cell proliferation, reduced inflammatory cytokine secretion (Th1, Th2, Th17 and Th22) and modulated DC function, including inducing T regs. The primary objective of this first-in-human study was to assess safety and tolerability of ANB032. Key secondary and exploratory objectives included characterization of the pharmacokinetics (PK) of ANB032, assessment of BTLA receptor occupancy and evaluation of BTLA expression following ANB032 administration.

Materials & Methods:

This was a Phase 1 double blind, placebo-controlled single ascending dose (SAD) and multiple ascending dose (MAD) study of ANB032 in healthy subjects. SAD and MAD portions of the study consisted of 8 subjects each (6 ANB032, 2 placebo via intravenous [IV] or subcutaneous [SC] injection). SAD phase included 9 cohorts while MAD phase included 3 cohorts with each cohort dosed with ANB032 or placebo weekly for 4 weeks.

Results:

Ninety-six healthy subjects were randomized into SAD and MAD cohorts with results being similar for both cohorts. ANB032 was well-tolerated with no dose limiting toxicities, no discontinuations due to adverse events (AEs) (with the exception of one subject with potential COVID infection), and no SAEs. Most AEs were mild-to-moderate, of short duration, resolved without sequelae, occurred sporadically and were dose-independent. PK profile was favorable, including a 2-week half-life. ANB032 exhibited rapid and sustained target engagement on T and B cells. Full BTLA receptor occupancy (RO) occurred within hours and was maintained for more than 30 days after a single dose. Moderate reduction (~50%) of cell surface BTLA expression on T and B cells was observed. The duration of reduced BTLA expression dose-dependently correlated with RO and was also maintained for more than 30 days after a single dose. The phase 1 data demonstrated robust PK and target engagement in humans.

Conclusion:

ANB032 demonstrated favorable safety, tolerability and PK with rapid and sustained PD activity. These results coupled with robust pre-clinical data and AD disease heterogeneity involving Th1, Th2, Th17, and Th22 and DCs support the rationale for advancing the clinical development of ANB032 in AD. Thus, a global Phase 2b trial in AD was initiated in May 2023 with results expected EOY 2024.

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Abstract N°: 5606

Dermatological adverse events in patients receiving targeted anticancer therapies : a summary of 2 years experience

Issam Tablit[1], Aomar Ammar Khodja[1], Cherifa Sedkaoui[2]

[1]Mustapha University Hospital Center, Dermatology, Algiers, Algeria,[2]Nedir Mohamed University Hospital Center, Oncology, Tizi-Ouzou, Algeria

Introduction & Objectives:

Targeted anticancer therapies are being increasingly prescribed in oncology. Their dermatological adverse effects are frequent but poorly described. The aim of this study was to describe these dermatological adverse effects and to assess their incidence among cancer patients experiencing them.

Materials & Methods:

Over a period of 12 months, 207 patients treated with 9 targeted therapies of 3 different classes (EGFR inhibitors, inhibitors of angiogenesis and imatinib) for several indications, were included. A regular dermatological follow-up according to a pre-established schedule was performed for a maximaum period of one year for each patient. Whenever a dermatological adverse effect was found, a precise clinical description was carried out with an evaluation of its severity and its time of onset.

Results:

Seventy seven percent of patients treated with targeted anticancer therapies developed dermatological adverse events. Among patients receiving EGFR inhibitors, 81 to 100% experienced acneiform rash, 30 to 44 % had xerosis, 20 to 62% had paronychia and 22 to 75 % presented hair changes. The most common adverse events of angiogenesis inhibitors were mucositis (67 to 83%), followed by xerostomia and dysgeusia (58 and 75 % respectively), hand-foot skin reactions (50 to 75%) and Fingernail subungual splinter hemorrhages (17 to 25%), except for bevacizumab whose toxicity was limited to epistaxis (31%). Imatinib was well tolerated despite the great incidence of periorbital edema (60%). Two percent of dermatological adverse events led to treatment dose reduction, 7% resulted in dose interruption, and 1,4% led to drug discontinuation.

Conclusion:

Dermatological adverse events of targeted anticancer therapies are frequent. The majority of dermatological adverse events are mild to moderate in severity and most of them do not require dose adjustments or drug discontinuation. Early management is recommended, and interventions should be tailored toward the toxicity and the causal agent. Increased education and attention to dermatologic health will help to manage adverse events and improve the quality of life of these patients.

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Abstract N°: 5693

Immune checkpoint inhibitors-related psoriasis – a therapeutic management challenge

Hrista Teodora Anghel[1], Mariana-Georgiana Portelli[1], Iulia Popescu[1], Liliana Gabriela Popa[1, 2]

[1]Elias Emergency University Hospital, Dermatology, Bucharest, Romania, [2]Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Immune checkpoint inhibitors-related psoriasis – a therapeutic management challenge

Introduction & Objectives: Immune checkpoint inhibitors (ICIs), also known as checkpoint inhibitor immunotherapy, are a class of drugs that have greatly improved the prognosis of patients with a wide range of advanced malignancies, varying from melanoma, Merkel cell carcinoma and non-small lung cell cancer to hepatocellular carcinoma, renal cell carcinoma and many others. ICIs are immunomodulatory antibodies that boost anti-cancer immune responses by targeting immunologic receptors on the surface of T-lymphocytes. There are three distinct groups of ICIs, namely CTLA-4 inhibitors (Ipilimumab and Tremelimumab), PD-1 inhibitors (Nivolumab, Pembrolizumab, and Cemiplimab) and PD-L1 inhibitors (Atezolimumab, Durvalumab and Avelumab), whose desired effect consists of activating T-lymphocytes, hence stimulating the immune system in order to attack tumor cells.

Despite important clinical benefits, the nonspecific immune activation determined by ICIs is known to cause a wide spectrum of toxicities, termed immune-related adverse events (irAEs), wherein the skin and its appendages are the most frequent targets. The dermatologic complications are observed in between 30 and 50% of patients treated with ICIs and are very heterogenous, including maculopapular rash, immunobullous diseases, vitiligo, psoriasis, alopecia areata, pruritus, and, rarely, severe cutaneous drug reactions like SJS/TEN. All those adverse events may significantly impair patients' quality of life, and even lead to a pause or a stop of immunotherapy treatment.

Materials & Methods: We are going to present two cases of psoriasis in two patients (both men) treated with ICIs for regressive melanoma and advanced urothelial carcinoma respectively, one with new-onset psoriasis and the other one with history of pre-existing disease.

Results: The patients were given systemic (methylprednisolone, acitretin) as well as topical (emollients, keratolytic agents, corticosteroid creams) treatment, the key to maintaining disease control being a close patient-doctor relationship and continuous adjustment of therapeutic schemes. In our opinion, the preferred treatment in ICIs-related psoriasis cases are aromatic retinoids -acitretin 25-30mg per day -because, on one hand, it lacks an immunosuppresive effect, while on the other it has an intrinsic antitumoral activity.

Conclusion: Our aim is to** highlight the importance and the increasing need in knowing how to correctly manage these fragile, often with multiple morbidities, highly prone to immunotherapy-related relapses oncologic patients, keeping in mind the real challenge that is, due to limited therapeutic options as well as the negative impact that almost all dermatologic adverse events have on the quality of life.

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Abstract N°: 5777

The risk of onset of malignancies and major cardiovascular diseases in psoriatic patients treated with either TNF-α, IL-23, or IL-17 inhibitors: results from a global retrospective study cohort.

Madeleine Jares*[1], Nadia Prayitno[1], Sascha Ständer[1], Tomasz Hawro[1], Ralf Ludwig[2], Henner Zirpel[1], Diamant Thaçi[1]

[1]Comprehensive Center for Inflammation Medicine, Lübeck, Germany, [2]Lübeck Institute for Experimental Dermatology, Lübeck, Germany

Introduction & Objectives:

Biologics specifically targeting TNF-α, IL-23, and IL-17 signaling are used to treat moderate-to-severe psoriasis. Safety of these biologics is accessed within clinical trials, however, real-world long-term data for less often reported adverse events are lacking. In this retrospective real-world study, we seek to evaluate the risk for development of major adverse cardiac events (MACEs) and malignancies between the different classes of biologics.

Materials & Methods:

By retrospectively accessing electronic health care records from a global collaborative network, we identified three cohorts of psoriasis patients, each consisting of more than 12,000 patients after propensity-score matching. Patients from group 1 were treated with TNF-α inhibitors (Adalimumab, Certolizumab pegol, Etanercept, Infliximab), from group 2 with IL-23 inhibitors (Ustekinumab, Guselkumab, Risankizumab, Tildrakizumab), and from group 3 with IL-17 inhibitors (Secukinumab, Ixekizumab, Brodalumab). We determined the association of risk of onset of malignancies and certain cardiovascular diseases within 10 years following the first day of concurrent diagnosis and treatment.

Results:

Patients treated with TNF-α inhibitors were at significantly higher risk to develop malignant neoplasms of digestive organs and of respiratory and intrathoracic organs than both IL-23- and IL-17-treated patients. The lowest risk for neoplasms overall as well as for melanoma and other malignant neoplasms of the skin was found in IL-17 inhibitor treated patients.

TNF-α inhibitors posed a significantly higher risk than IL-23 inhibitors, but not IL-17 inhibitors for the patients to be diagnosed with cerebrovascular diseases, cerebral infarction, and atherosclerosis. Arterial embolism and thrombosis was diagnosed significantly less in IL-23 treated patients than both TNF-α and IL-17 treated patients.

Conclusion:

Our findings indicate that subsequent screenings for reported malignancies and MACEs should be included into daily clinical practice especially following treatment initiation with TNF-α inhibitors, as compared to treatment with IL-23 or IL-17 inhibitors.

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Abstract N°: 5821

Real-World Experience of Bimekizumab for the Treatment of Plaque Psoriasis in Adult Patients: An Interim Analysis of Short-Term Efficacy and Safety

Alex Rimke[1], Brian Rankin[2], Abrahim Abduelmula[3], Jorge Georgakopoulos[3], Khalad Maliyar[3], Ahmed Bagit[3], Ferne-Joy Leung[1, 4], Lauren Stark[1, 4], Ronald Bernard Vender[5], Jensen Yeung[3, 6, 7, 8], Vimal Prajapati*[1, 2, 4, 8, 9]

[1]Dermatology Research Institute, Dermatology, Calgary, Canada, [2]Cumming School of Medicine, Dermatology, Calgary, Canada, [3]University of Toronto, Dermatology, Toronto, Canada, [4]Skin Health and Wellness Center, Calgary, Canada, [5]McMaster University, Dermatology, Hamilton, Canada, [6]Women's College Hospital, Toronto, Canada, [7]Sunnybrook Health Sciences Centre, Toronto, Canada, [8]Probity Medical Research, Waterloo, Canada, [9]Cumming School of Medicine U C, Pediatrics, Calgary, Canada

Introduction & Objectives:

Bimekizumab, a novel biologic therapy that inhibits interleukin (IL)-17A and IL-17F, was recently approved for the treatment of plaque psoriasis in adults. Published literature is limited to clinical trials. Real-world evidence (RWE) of the efficacy and safety of this medication are lacking.

Materials & Methods:

A multicenter, retrospective chart review of adult patients treated with bimekizumab for moderate-to-severe plaque psoriasis, defined by Investigator Global Assessment (IGA) ≥3, was conducted at 3 different sites in Canada. Outcomes were measured at 16±6 weeks. Efficacy endpoints included: IGA 0/1; Psoriasis Area and Severity Index (PASI) reduction from baseline of 75%, 90%, and 100% (PASI75, PASI90, and PASI100, respectively); and absolute PASI <3, <2, and <1. Data was further stratified by prior biologic experience. Safety was also assessed.

Results:

Fifty-one patients (51% male) were included (mean age at treatment initiation: 46.9 years) with an average follow-up time of 16.2 weeks (range: 10-22 weeks). At week 16+/-6 weeks, IGA 0/1, PASI75, PASI90, and PASI100 were achieved by 83.67%, 80.0%, 60.0%, and 37.8% of patients, respectively; mean PASI decreased from 11.2 to 1.5 (mean PASI improvement: 86.6%); 82.5%, 73.3%, and 55.6% of patients achieved absolute PASI <3, <2, and <1, respectively. There were no differences between biologic-naïve and -experienced patients (n= 17 and n= 34, respectively). Oral candidiasis occurred in 4 patients (7.8%), but these were not deemed serious, and none led to treatment discontinuation. No serious adverse events were reported.

Dose escalation was required in 3 patients (5.9%), while 2 patients (3.9%) were non-responders and required transition to another treatment.

Conclusion:

Our RWE study demonstrates short-term efficacy and safety of bimekizumab as a therapeutic option for adult patients with plaque psoriasis in both biologic-naïve and -experienced populations.

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Abstract N°: 5831

Risk of Onset of Serious Infections in Psoriatic Patients Treated with either TNF-a, IL-17, or IL-23 Inhibitors: Results from a Retrospective Global Cohort

Nadia Prayitno*[1], Madeleine Jares[1], Sascha Ständer[1], Tomasz Hawro[1], Ralf Ludwig[2], Henner Zirpel[1], Diamant Thaçi[1]

[1]Comprehensive Center for Inflammation Medicine, Lübeck, Germany, [2]Lübeck Institute of Experimental Dermatology, Lübeck, Germany

Introduction & Objectives:

Therapeutic options for the treatment of moderate-to-severe psoriasis include biologics targeting specifically either TNF-a, IL-23, or IL-17. These treatments have demonstrated higher efficacy and safety profile and increased improvement in quality of life compared to conventional systemic therapies. However, data on long-term safety in a real-world setting are still needed.

Materials & Methods:

In this retrospective study, 3 propensity-matched groups of more than 12,000 patients diagnosed with psoriasis were formed, who had received treatment with a) TNF-a inhibitors (Adalimumab, Certolizumab pegol, Etanercept, and Infliximab), b) IL-23 inhibitors (Ustekinumab, Guselkumab, Risankizumab, and Tildrakizumab), and c) IL-17 inhibitors (Ixekizumab, Brodalumab, and Secukinumab), respectively. We then analyzed the association between the treatment and the risk of onset for various infectious diseases within 10 years after the first day of treatment.

Results:

Among all biological treatments, TNF-a inhibitors significantly showed a greater association with the risk of the onset of serious infections, such as tuberculosis, herpes zoster viral infection, and pneumonia. In line with previous reports, we found that candidiasis, which is a common adverse event seen in IL-17 pathway inhibition, was more frequent in patients treated with IL-17 inhibitors compared to those treated with either TNF-a or IL-23 inhibitors.

Conclusion:

Based on our results it might be necessary to include patient monitoring for infectious diseases under long-term therapy with biologics. However, further real-world data on the long-term safety of biologics are required.

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Abstract N°: 5840

Dupilumab Improves Urticaria Activity and Health-Related Quality of Life in Patients With CSU

Marcus Maurer[1, 2], Thomas Casale[3], Sarbjit S. Saini[4], Moshe Ben-Shoshan[5], Allen Radin[6], Eric Mortensen[6], Deborah Bauer[7], Elizabeth Laws[7], Chien-Chia Chuang[8], Ryan Thomas[6], Kiran Patel[7]

[1]Institute of Allergology, Charité – Universitätsmedizin Berlin, corporate member of Free University of Berlin and Humboldt University of Berlin, Berlin, Germany, [2]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Berlin, Germany, [3]University of South Florida, Tampa, United States,[4]Johns Hopkins Asthma and Allergy Center, Baltimore, United States, [5]McGill University Health Centre, Montreal, Canada,[6]Regeneron Pharmaceuticals Inc., Tarrytown, United States, [7]Sanofi, Bridgewater, United States,[8]Sanofi, Cambridge, United States

Introduction & Objectives: Chronic spontaneous urticaria (CSU) is a chronic inflammatory disease characterized by wheals, angioedema, or both that recur for > 6 weeks. Lesion appearance, itch, burning, and pain have a negative impact on emotional well-being, daily activities, and performance at work and school. Many patients continue to experience substantial disease burden despite treatment with H1-antihistamines (H1-AH), the standard-of-care for CSU.

Materials & Methods: LIBERTY-CSU CUPID Study A (NCT04180488) was a randomized, placebo-controlled, phase 3 trial of dupilumab treatment up to 24 weeks in adults, adolescents, and children aged ≥ 6 years with CSU who remained symptomatic despite use of standard-of-care AH. Patients on H1-AH (up to 4-fold approved dose) were randomized to receive add-on dupilumab 300 mg (adults/adolescents ≥ 60 kg) or 200 mg (adolescents < 60 kg/children ≥ 30 kg) (n = 70) or matching placebo (n = 68) subcutaneously every 2 weeks. Efficacy endpoints included the Urticaria Activity Score over 7 days (UAS7, range: 0–42), a composite report of itch and hive severity scores. Health-related quality of life (HRQoL) outcomes included the Dermatology Life Quality Index (DLQI, range: 0–30, higher scores indicate greater QoL impairment), chronic urticaria quality of life questionnaire (CU-Q2oL, range: 1–100, higher scores indicate greater QoL impairment), and EuroQual 5-dimension questionnaire (EQ-5D, range: 1–100). The EQ-5D is a widely used patient-reported general HRQoL measure with 1 question in each of 5 dimensions: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. It also includes a visual analog scale (VAS) used to record patients' global health as a single measurement from 0 ("the worst health you can imagine") to 100 ("the best health you can imagine").

Results: Mean (standard deviation, SD) UAS7 dupilumab vs placebo values at baseline were 31.9 (7.2) vs 30.8 (8.2). UAS7 scores were significantly improved in dupilumab-treated patients. At Week 24, least squares (LS) mean change (SD) in UAS7 was −20.5 (1.8) vs −12.0 (1.8, difference −8.5; $P = 0.0003$). Mean (SD) DLQI scores at baseline in dupilumab vs placebo groups were 13.5 (5.9) vs 15.3 (6.7); mean (SD) CU-Q2oL scores at baseline were 41.0 (17.3) vs 46.7 (20.3); and mean (SD) EQ-5D VAS scores at baseline were 68.1 (20.3) vs 66.8 (21.9). Dupilumab treatment reduced the patient-reported disease burden in patients with CSU. At Week 24, LS mean change (standard error, SE) in dupilumab vs placebo groups in DLQI was −10.8 (0.8) vs −7.6 (0.8, difference −3.2; nominal $P = 0.0026$); LS mean change (SE) in CU-Q2oL was −29.6 (2.2) vs −21.0 (2.3, difference −8.6; nominal $P = 0.0049$). A numerical trend for improvement in EQ-5D-5L scores at Week 24 was observed; at Week 24, LS mean change (SE) in EQ-5D VAS from baseline was 15.8 (2.0) vs 9.8 (1.9) for dupilumab vs placebo, respectively (difference 6.0; nominal $P = 0.0210$). Occurrence of treatment-emergent adverse events (TEAEs) for dupilumab vs placebo was 35 (50.0%) vs 40 (58.8%); injection-site reactions, 4 (5.7%) vs 2 (2.9%); conjunctivitis, 0 vs 1 (1.5%); serious TEAEs, 2 (2.9%) vs 5 (7.4%).

Conclusion: Patients with CSU treated with dupilumab experienced significant reduction in urticaria activity, as

measured by UAS7, and an improvement in general and disease-specific HRQoL, as measured by DLQI, CU-Q2oL, and EQ-5D-VAS. Dupilumab was well tolerated, and the overall safety was consistent with the known dupilumab safety profile.

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Abstract N°: 5928

How deep is the darkness around the patient with psoriasis and hidradenitis suppurativa?

Daciana Elena Branisteanu[1], Mitrofan Elena-Cristina[2], Gantatuc Cornel[3], Alina Elena Spînu[3], Andreea-Caterina Rusu[3], Roxana-Paraschiva Ciobanu[4], Ivanes Doina[4]

[1]Universitatea de Medicină și Farmacie „Grigore T. Popa" din Iași, Iași, Romania,[2]Railway Clinical Hospital Iasi, Pneumology, Iasi, Romania, [3]Railway Clinical Hospital Iasi, Dermatology, Iasi, [4]Railway Clinical Hospital Iasi, Iasi

Introduction & Objectives: The association between hidradenitis suppurativa (HS) and psoriasis, both chronic inflammatory skin conditions, with distinct clinical manifestations, has a strong debilitating component, which has a devastating impact on the patients' quality of life. The pathogenesis of both diseases is complex and multifactorial, including genetic factors as well as dysregulation of the immune system and environment related factors.

Materials & Methods: We report the case of a male patient with severe hidradenitis supurativa and a long history of psoriasis, pathologies aggravated by the presence of important psychiatric comorbidities.

Results: A 54 years-old male patient was referred to our dermatology department for infiltrated, inflammatory lesions with multiple abcess formation and pus discharge, with sinus tracts and mutilating scars located in the left axilla and the scrotal region, consistent with the diagnosis of HS, Hurley stage III. The onset was 25 years prior to the consultation with inflammatory lesions in the axillary region first and then affecting the perineal region as well, treated with several antibiotic courses with ondulating evolution. The patient's past medical history is significant for psoriasis vulgaris with onset 35 years ago, affecting the scalp, anterior trunk, genital area and nails (PASI=10,2, PSSI=18, s-PGA-G=3, NAPSI=86), treated with only topical treatments, bionaive for biological therapies. Other relevant comorbidities are vitiligo, personality disorder, severe depressive episode, anxiety disorder, grand mal epilepsy and cerebral atrophy. The permanent skin damage, along with comorbidities from the psychiatric field, led in this patient's case to an increased consumption of alcohol, finally reaching chronic alcoholism. Considering the long evolution and the severity of the Hidradenitis suppurativa and psoriasis vulgaris, as well as the ondulating evolution under classic treatment, new therapeutic options including TNF-alpha inhibitors and IL-17 inhibitors may be beneficial.

Conclusion: The literature highlights the relationship between psoriasis and hidradenitis, showing that a higher prevalence of hidradenitis (0.3%) was recorded in patients diagnosed with psoriasis, compared to the rest of the population (0.2%). Regarding the etiopathogenesis of the two entities, increased production of IL-17 and TNF is implicated in the pathogenesis of both diseases. Experimental studies have evidenced that IL-12 and IL-23 were expressed in large quantities by macrophages in HS lesional skin, along with the infiltration of IL-17-producing Th and CD4+ T cells, also being a central axis tot the pathogenesis of psoriasis. Elevated levels of TNF-α resulting in neutrophil activation have been reported both in patients with HS and psoriasis, which may explain the good response for TNF-α inhibitors in both conditions. Starting from these premises, numerous studies have demonstrated positive effects of biological therapies such as TNF- alpha inhibitors (adalimumab) and IL-17 inhibitors (secukinumab), in patients with hidradenitis suppurativa and psoriasis. Advances over recent years regarding the common etiopathogenesis between hidradenitis suppurativa and psoriasis aim to select a single, effective, personalized therapy for both conditions.

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Abstract N°: 5933

TNF-α treatment-induced cutaneous Crohn disease eruption: Case report

Roman Niskovich[1], Marta Wolska[1], Joanna Jarosz-Popek*[1], Elżbieta Szymańska[1], Irena Walecka[1]

[1]National Medical Institute of the Ministry of Interior and Administration in Warsaw, Dermatology Department, Warsaw, Poland

Introduction & Objectives:

Skin lesions associated with TNF-α inhibitors treatment are becoming an important clinical issue due to the increased use of these drugs in numerous diseases, including rheumatological and gastrointestinal diseases. The most common cutaneous adverse effects in patients with Crohn's disease (CD) treated with TNF-α inhibitors are eczematous and psoriasiform skin changes. However, we report a case of TNF-α treatment induced cutaneous CD in female patient with severe CD.

Materials & Methods:

Results:

A 29-year-old female patient, with a history of CD since 2009, was admitted to hospital due to erythematous and exfoliative skin lesions.First skin lesions appeared in November 2021. The patient was treated with a TNF-α inhibitor since 2015 due to the CD.

Dermatological examination resulted with: (i) erythematous and exfoliative lesions on the armpits, elbow pits and buttock; (ii) erythematous and exfoliative lesions with yellow scab behind ears, on the pubic tigh, groins and labia; (iii) perioral inflammation. Additionally, the patient reported pain in the lesions area.

The laboratory tests showed C-reactive protein amounted to 15,4 mg/L, the erythrocyte sedimentation rate 22 mm/h, WBC 12,7 103/ml, NEU 9,02 (1.9 – 7) 103/µl, MON 1,47 (0,2-0,8) 103/µl. The liver tests were correct. Test for glutamate dehydrogenase (GDH), viral serologies (HCV, HBV, HIV) were negative. Fecal culture for: Enterobacteriacae producing carbapanemases, Salmonella and Shigella, Campylobacter, Yersinia and fungi were negative.

The histopathological examination of a section from skin lesions from the left labia demonstrated: fragment of skin covered with acanthotically proliferated epidermis devoid of top layers with regularly elongated icicles. Throughout the thickness of the dermis: abundant lymphocytic-plasmacytic CD138(+) inflammatory infiltrates mixed with histiocytes CD68(+) forming abortive granulomas.The microscopic picture indicated the diagnosis of cutaneous form of CD.

In the view of the clinical manifestation, laboratory tests and the histological aspect we retained the diagnosis of cutaneous form of CD (metastatic CD). The anti-TNF-α was withdrawn and a treatment combining systemic corticosteroid therapy and topical antibiotic with corticosteroid led to clinical improvement.

Conclusion:

CD is a chronic, inflammatory disease with often severe course, requiring systemic treatment, including biological treatment. Cutaneous manifestations of CD are the most common extra-intestinal involvement of the disease, including metastatic CD and skin lesions occurring due to a direct extension of bowel disease to the skin. There were few reports indicating a novel category of anti-TNF-α associated skin lesions in patients with CD. There is a

great need for further research in this field in order to individualize the treatment and identify patients with increased risk of cutaneous manifestation of CD after TNF-α inhibitors.

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Abstract N°: 6073

Consider skin biopsy in patient with unexpected poor response to biological therapy for psoriasis

Nikola Ferara*[1, 2], Judita Perović[1], Ivana Prkačin[1], Mirna Situm[1, 3], Marija Buljan[1, 3], Iva Blajić[1]

[1]Sestre Milosrdnice University Hospital Centre, Department of Dermatology and Venereology,[2]Faculty of Science, University of Zagreb, Department of Biology, [3]School of Dental Medicine, University of Zagreb

Consider skin biopsy in patient with unexpected poor response to biological therapy for psoriasis

Introduction & Objectives:

Psoriasis is predominantly a clinical diagnosis made by observation of typically sharply demarcated and scaly erythematous plaques on the extensor surfaces, usually not requiring obligatory biopsy and histopathologic analysis. However, in cases of diagnostic uncertainty it is advised to perform biopsy to exclude many of the differential diagnoses. Here we report a case of unexpected histopathological result in patient already receiving biological therapy for psoriasis and psoriatic arthritis (PsA).

Materials & Methods:

A 71-year-old female patient, at that time receiving tumor necrosis factor α (TNF-α) inhibitor, golimumab, as a biological therapy for previously diagnosed PsA, was referred to dermatologist for assessment of her worsening skin lesions. Patient has been suffering psoriasis and PsA for more than 20 years; moreover both her father and daughter have been diagnosed with psoriasis too. Due to the fact that golimumab is primarily used for Psa and has no beneficial effect on skin psoriasis, in agreement with rheumatologist patient was switched to an interleukin 12/ 23 inhibitor, ustekinumab, in dose of 45mg subcutaneously. At six months from treatment initiation there was substantial improvement in Psa, but due to the absence of skin improvement, a dose of ustekinumab was raised to 90mg every 12 weeks. Even after receiving higher dose of ustekinumab for almost 7 months, there was still no improvement in her skin lesions, according to Psoriasis Area and Severity Index (PASI) of 12, Body Surface Area (BSA) of 6% and Dermatological Life Quality Index (DLQI) of 10.

Results:

Due to total absence of response to ustekinumab and atypical appearance of skin lesions a diagnosis of psoriasis was put to a reconsideration. Patient did not have large surface of skin affected and had only few plaques on the skin of the trunk, left shin and one large plaque in sacral area. However, the existing erythematous plaques were peculiar, with pronounced elevation, papillomatous surface, presence of brown colour and slight desquamation. Dermoscopical examination did not reveal elements for psoriasis, showing homogenous erythematous background with brown and yellow scales. Histopathological analysis of the specimen obtained from one truncal plaque was rather surprising, finding elements only for diagnosis of irritated seborrheic keratosis or inverted follicular keratosis. Because of this discrepancy additional biopsy from two sites was performed and histopathological analysis is still in progress.

Conclusion:

Although the definite results of histopathological analysis are not yet known, another possible explanation for atypical appearance and histology could be in paradoxical reaction to ustekinumab. Even though the largest number of paradoxical reactions has been reported for TNF-α inhibitors, there are increasing reports for more temporary agents, such as ustekinumab, secukinumab and ixekizumab. As we expect resolution of this case, we

can only emphasize the importance of performing biopsy in cases of atypical ‘psoriatic’ lesions and total unresponsiveness to given biological therapy.

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Abstract N°: 6095

Consider apremilast for treatment of coexisting psoriasis and subacute lupus erythematosus

Sanja Spoljar*[1], Nikola Ferara[1, 2], Judita Perović[1], Vanda Haralović[1], Nives Pondeljak[3], Lucija Culina[1]

[1]Sestre Milosrdnice University Hospital Centre, Department of Dermatology and Venereology,[2]Faculty of Science, University of Zagreb, Department of Biology, [3]General Hospital Sisak, Department of Dermatology and Venereology

Introduction & Objectives:

Apremilast is a phosphodiesterase-4 inhibitor approved for treatment of psoriatic arthritis and moderate to severe plaque psoriasis. However, due to its good safety profile and notable immunomodulatory effect, many studies have investigated its use beyond psoriasis, in various conditions such as atopic dermatitis, hidradenitis suppurativa, cutaneous sarcoidosis, discoid lupus and other. Subacute lupus erythematosus (SCLE) with papulosquamous lesions can be easily mistaken for psoriasis or even coexist with it, which makes the management of SCLE rather difficult. Here we report a case of SCLE/psoriasis with a good response to off-label treatment with apremilast.

Materials & Methods:

A 67-year old male patient, without other notable chronic diseases or familial history of autoimmune conditions, was diagnosed with psoriasis 8 years ago. Initial skin changes appeared as erythematous-squamous plaques on the trunk, followed by those on the face and scalp. Despite atypical distribution of the lesions, psoriasis was confirmed by a series of biopsies, none of which found elements for diagnosis of lupus erythematosus, although direct immunofluorescence (DIF) of the skin lesions was not performed at the time. In an 8-years long course of the disease patient was treated with broad spectrum of treatments listed in a consecutive order - topical steroids and immunomodulators, acitrecin, phototherapy (nbUVB) and methotrexate (both oral and subcutaneous). Acitrecin caused no improvement and nbUVB caused slight worsening of the condition. Due to unsuccessfulness of the previous treatments apremilast was introduced and was associated with substantial improvement in skin lesions, without any side-effects. However, due to atypical distribution of skin lesions and history of previous worsening to phototherapy, patient was admitted to inpatient dermatology department for assessment of possible connective tissue disease.

Results:

DIF of the face lesion showed immunoglobulin G (IgG), C3 and C1 complements deposition at the basement membrane. Antinuclear antibodies (ANA) came negative, but anti-SS-A/Ro came positive (820,6 CU). Patient was then referred to immunologist for further assessment, but due to a good response to apremilast, the drug was continued. To this day patient has been treated with apremilast for more than two years, with good skin response, having only residual erythema and without new breakouts.

Conclusion:

According to the literature review highest level of evidence for off-label use of apremilast has been found for alopecia areata. One small pilot study found significant reduction in Cutaneous Lupus Erythematosus Disease Area and Severity Index (CLASI) in patients with discoid lupus who were treated with apremilast. There are only sporadic reports on effect of apremilast on concomitant SCLE and psoriasis. To our knowledge there is no report on apremilast use for SLCE alone. Although in this case it is not yet clear if this is SCLE alone, or combined with

psoriasis, it seems apremilast could be a good treatment option for borderline cases. Altogether, apremilast holds a great potential for treatment of many chronic inflammatory diseases, since it exerts substantial immunomodulatory effect, does not hold a risk of infections or malignancies as some of the conventional therapies do and does not require any blood test monitoring. It is likely apremilast will find its broader use in the future.

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Abstract N°: 6208

Secukinumab as a Therapeutic Option for Grover's Disease: A Case Report of Transient Acantholytic Dermatosis (Grover's Disease) Associated with COVID-19 Infection in a Patient with Guttate Psoriasis

Furkan Tüten[1], Ursula Pätzold[1], Ocko Kautz[2], Robert Wessbecher[1]

[1]Reha-Zentrum Borkum, Klinik Borkum-Riff, Deutsche Rentenversicherung Bund, Borkum, Germany,[2]NordWest-Histo, Dermatohistopathologie - Partnerschaft, Westerstede, Germany

Introduction & Objectives: A 62-year-old female patient with a known history of guttate psoriasis was admitted for inpatient rehabilitation in September 2022. Since the age of three, she has experienced disseminated guttate-like erythematosquamous plaques, primarily on her extremities and occasionally on her trunk. In July 2022, the patient contracted COVID-19, after which she developed intensely itchy truncal papules and vesicles.

Materials & Methods: Diagnostic tests, including routine laboratory parameters, TPHA, and ANAs, showed no significant abnormalities. To further investigate the possibility of Grover's disease, a skin biopsy was performed. Histopathological examination revealed a centrally acanthotic widened epidermis with focal acantholysis, dyskeratosis, minimal spongiosis, and focal parakeratotic deposits. Additionally, a subepidermal lymphoid cell infiltrate was observed.

Results: Treatment involved localized application of topical preparations containing calcipotriol, urea, and polidocanol, as well as full-body phototherapy with UVB-311nm and seawater baths. This approach alleviated pruritus and reduced the characteristic plaques of guttate psoriasis.

In November 2022, the patient was prescribed oral prednisolone at a daily dose of 10 mg for four weeks, followed by a gradual dose reduction. This treatment significantly improved the symptoms of Grover's disease and pruritus, while the guttate psoriasis showed no response to treatment. However, after discontinuing the medication, there was a recurrence of Grover's disease and pruritus.

In February 2023, the patient began treatment with secukinumab, an IL-17A inhibitor, at a dosage of 300 mg. After the fourth injection, both the guttate psoriasis and Grover's disease showed significant improvement, approaching complete healing.

Conclusion: The literature discusses a potential causal relationship between viral infections and the development of Grover's disease. In this particular case, we considered the COVID-19 infection as the viral trigger.

Clinically, Grover's disease presented with solitary, pruritic papules and papulovesicles, distinguishing it from the erythrosquamous plaques of guttate psoriasis. A positive therapeutic response was achieved through antipsoriatic treatment with a topical vitamin D analogue, balneophototherapy, and the initiation of systemic therapy, initially with prednisolone and ultimately with the IL-17A inhibitor secukinumab. This resulted in stable healing of both skin conditions up to the present.

Although systemic therapy options for Grover's disease include steroids, vitamin A derivatives, as well as isolated case reports of Etanercept (TNF-α inhibitor) and Dupilumab (IL-4/IL-13 inhibitor), our case is noteworthy due to the simultaneous healing of both guttate psoriasis and Grover's disease with the IL-17A inhibitor secukinumab. This finding suggests that an IL-17A inhibitor could be a potential therapeutic option for treating Grover's disease.

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Baricitinib for treatment of steroid-refractory chronic graft versus host disease

Mahshid Mehdizadeh[1, 2], Shayan Zamani[3], Alireza Firooz*[3]

[1]Hematopoietic Stem Cell Research Center, Shahid Beheshti University of Medical Sciences , Hematology and Oncology, Tehran, Iran, [2]Taleghani Hospital Bone Marrow Transplantation Center, Shahid Beheshti University of Medical Sciences, Hematology and Oncology, Tehran, Iran, [3]Center for Research and Training in Skin Diseases and Leprosy, Tehran University of Medical Sciences , Dermatology, Tehran, Iran

Introduction & Objectives: cGVHD, is the most common complication of allogeneic-HSCT. Skin is its most common target. more than 50% of the cases are steroid-refractory. Ruxolitinib is a JAK inhibitor and one of the few options that has been FDA approved for treatment of this condition, however it comes with certain adverse effects. Current data provided enough evidence that inhibition of JAK1/JAK2 enzyme pathways is a promising target for mitigating GVHD. Preclinical studies in mice have suggested that other drug from the same family, baricitinib, may have similar outcomes with less side effects for treatment of cGVHD. In this ongoing pilot clinical study, we aim to evaluate the efficacy and safety profile of baricitinib. In this preliminary report 5 patients are described.

Materials & Methods: Ten patients with clinically confirmed cGVHD are recruited in the study. All patients must have above 12 years of age, and a clinical confirmation of steroid refractory cGVHD with failure to response to at least two previous routine lines of therapy. Baricitinib is prescribed at the dose of 4 mg every other day. The primary end point was overall response (OR), chronic GVHD symptoms and clinician- and patient-reported global ratings, at week 12 and week 24 based on the NIH response evaluation criteria.

Results: Table 1 demonstrates clinical progress of 5 patients in the first 12 weeks. four have demonstrated partial OR. Oral lesions had the fastest response. There was a markedly improvement in pigmentary manifestation following the treatment which could not be addressed by the NIH scoring system but was addressed with clinician and patient reported global ratings. Mild dyslipidemia was the most common adverse effect, no therapeutic intervention required. One patient developed pruritus at week 8 which was managed by temporary discontinuation and anti-histamines.

Conclusion: Our preliminary results of 12-week treatment of cGVHD patients with baricitinib has shown promising results with trivial adverse effects.

ID (Sex/ Age)	1 (F/ 36)				2 (M/ 26)				3 (F/ 33)				4 (M/ 40)				5 (M/ 48)			
Skin Symptoms	Deep Sclerotic- Hyper pigmentation				Poikiloderma – hair (GVHD confirmed by IHC and histology)				Lichenoid features- hyperpigmentation				Hypopigmentation-hair involvement – superficial sclerotic				Lichenoid features- superficial sclerosis – hair – nail pterygium Hypopigmentation – Hyper pigmentation			
Months	0	+1	+2	+3	0	+1	+2	+3	0	+1	+2	+3	0	+1	+2	+3	0	+1	+2	+3
Clinician																				
NIH skin (0-3)	3	3	3	3	0	0	0	0	2	2	2	1	2	2	2	1	3	3	3	
NIH Eye (0-3)	1	1	1	1	3	3	3	3	1	1	0	0	1	1	1	1	1	1	1	
NIH mouth (0-)	4	2	1	1	0	0	0	0	5	5	3	1	4	3	2	2	4	3	2	
NIH liver (0-3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
NIH global (0-?)	8	6	5	5	3	3	3	3	8	7	5	2	7	6	5	4	9	8	7	

Severity (Mild/Mod/Sev)	Mod	Mod	Mild to Mod	Mild to mod	Mod	Mod	Mild	Mild	Mod	Mod	Mild	Mild	Mod	Mod	Mod	Mild	Sev	Sev	Sev
Symptom intensity (0-10)	6	5	3	3	6	5	3	3	6	6	4	3	6	5	4-5	3	10	9	7
Objective Improvement (-2 to +2)		+1	+1	0		+1	+2	+1		+1	+2	+1		+1	+1	+2		+1	+2
Patient																			
Severity	Mild	Mild	Mild	Mild	Mod	Mod	Mild	Mild	Mod	Mod	Mild	Mild	Mod	Mod	Mod	Mild	Sev	Sev	Sev
Symptom intensity (0-10)	5	4	4	3	6	6	4	4	5	5	4	2	6	6	5	3	10	8	6
Subjective Improvement (-2 to +2)		+1	0	+1		+1	+2	+1		+1	+2	+2		0	+1	+2		+1	+2
Overall Response (After 12 weeks)	Partial Response Markedly improved hyperpigmentation				Can't be addressed based on the NIH score Markedly improved hypopigmentation				Partial Overall response Complete organ response (Mouth – eye) Markedly improved hyperpigmentation				Overall partial response Markedly improved hypopigmentation with recoloration of hair				8 weeks of treatment: Overall partial response Markedly improved hypopigmentation		