Dupilumab Improves Prurigo Activity and Severity in Patients with Prurigo Nodularis: Pooled Results from the PRIME and PRIME2 Trials

Claudia Zeidler¹, Jérôme Msihid², Melanie Makhija³, Ashish Bansal⁴, Simmi Wiggins⁵, Joseph Zahn⁴, Ryan Thomas⁴, Donia Bahloul*², Sonja Ständer¹

¹Center for Chronic Pruritus, University Hospital Münster, Münster, Germany

Introduction & Objectives:

Prurigo nodularis (PN) is a chronic inflammatory skin disease characterized by multiple localized/generalized pruriginous lesions. The Prurigo Activity and Severity (PAS) assessment tool, previously published under the name 'Prurigo Activity Score', is a clinician-reported outcome measure used to assess the activity and severity of PN lesions. A 5-item PAS (adapted from 7-item PAS) version was included in the phase-3 dupilumab PN trials (PRIME [NCT04183335]/PRIME2 [NCT04202679]) to comprehensively assess pruriginous lesion manifestations to further contextualize the benefits of dupilumab.

A scoring algorithm for the PAS score (range: 0 to 11, with higher scores indicating greater severity) considers the unweighted sum of three items: Item 2—the number of pruriginous lesions (categories: 0, 1–9, 20–100, >100; scored 0-3); Item 5a—the percentage of pruriginous lesions with excoriations/crusts (categories: 0%, 1–25%, 26–50%, 51–75%, 76–100%; scored 0-4); and Item 5b—the percentage of healed lesions (categories: 100%, 75–99%, 50–74%, 25–49%, 0–24%; scored 0-4). The algorithm was validated using data pooled from the PRIME and PRIME2 trials; the within-patient meaningful improvement threshold was estimated as 3.0 points (absolute change) and 37% (percent change). This post hoc analysis assessed absolute and percent change in PAS score and the proportion of patients achieving clinically meaningful improvement in PAS score in the pooled PRIME and PRIME2 trials.

Materials & Methods:

Pooled data from both trials were used. The following endpoints were compared between dupilumab and placebo: the absolute and percent change in PAS score from baseline up to Week-24 (reported as least squared mean difference versus placebo and 95% confidence interval [CI]) and the proportion of patients achieving the response thresholds (reported as odds ratio [OR] with 95%CI) at Week-24.

Results:

A total of 311 patients with PN (dupilumab: 153, placebo: 158; mean age 49.5 years, 65.3% female) were included in the analysis. Dupilumab showed significantly greater reduction vs. placebo in absolute and percent changes from baseline in PAS score as of Week 24 (LS mean difference vs placebo: absolute change -2.7, 95% CI: [-3.3, -2.1]; percent change -31.8% [-38.9, -24.6]; both P < 0.0001) (Figure 1). A significantly higher proportion of dupilumab-treated patients achieved clinically meaningful within-patient improvement of ≥ 3 points (69.3% vs. 27.2%; OR: 7.1; 95% CI: [4.1, 12.4]; P < 0.0001) and $\geq 37\%$ reduction from baseline (67.3% vs. 23.4%; OR: 8.2; 95% CI: [4.6, 14.7]; P < 0.0001) vs. placebo at Week 24.

²Sanofi, Gentilly, France

³Sanofi, Cambridge, MA, United States

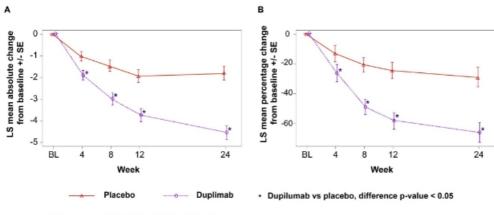
⁴Regeneron Pharmaceuticals, Inc., Sleepy Hollow, NY, United States

⁵Sanofi, Reading, United Kingdom

Conclusion:

Dupilumab significantly improved PAS scores, compared to placebo, with significantly more dupilumab treated patients reporting meaningful improvement from baseline. This evidence enhances our understanding of dupilumab's therapeutic value in PN.

Figure 1: LS mean change from baseline in PAS score by visit up to Week 24: (A) Absolute change; (B) Percentage change



LS, least squares; PAS, Prurigo Activity and Severity



The efficacy and safety of nemolizumab in patients with prurigo nodularis: A systematic review and metaanalysis of randomized controlled trials

hicham titou¹

¹avicenne military hospital, dermatology, marrakech, Morocco

Introduction & Objectives:

Prurigo nodularis (PN) is a chronic inflammatory skin disease characterized by intensely pruritic nodules or papules symmetrically distributed in large areas of the trunk and extremities. Conventional treatment choices often have adverse events (AEs) and uncertain long-term effectiveness, limiting their use and forming a lack of clear guidance for therapy. However, recent advancements in the understanding of PN immunopathogenesis have led to more treatment choices. We systematically review the efficacy and safety of nemolizumab among existing randomized, double-blinded, and placebo-controlled clinical trials of nemolizumab for the treatment of PN.

Materials & Methods:

We performed every step according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. We searched electronic databases (Embase, Scopus, PubMed, and Cochrane) from their inception to January 01, 2025. We also searched unpublished clinical trials at ClinicTrials.gov.

Results:

Overall, compared with placebos, the use of nemolizumab treatment showed a significant improvement in the lesion score and pruritus from week 4: Peak Pruritus Numerical Rating Scale (PP-NRS) improvement ≥4 points (odds ratio [OR] [95% CI], 9.27 [5.08-16.90]; P⁵0.00001); and investigators' global assessment score (IGA 0/1) ([OR] [95% CI], 3.24 [0.45-23.49]; P=0.02). The results of the meta-analysis indicated that nemolizumab has better performance than the placebo on the Sleep Disturbance Numerical Rating Scale (SD-NRS) ([OR] [95% CI], 6.33 [3.51-11.41]; P⁶0.00001). Nemolizumab demonstrated the highest risk of AEs, and the incidence was significantly higher than that of the placebo. 29 patients in the nemolizumab-treated group experienced serious AEs, and 22 of them discontinued the treatment. The most commonly reported serious AEs of nemolizumab were infection (OR [95% CI], 0.81 [0.53-1.24]; P=0.52), atopic dermatitis (OR [95% CI], 2.68 [0.54-13.24]; P=0.21), peripheral or facial edema (OR [95% CI], 1.83 [0.50-6.69]; P=0.70), and asthma (OR [95% CI], 1.35 [0.35-5.16]; P=0.77). All of which were mild to moderate in severity.

Conclusion:

this meta-analysis showed that nemolizumab is a promising treatment option for PN. Because of the higher risk of serious AEs during nemolizumab treatment, more attention should be paid to the AEs of patients treated with nemolizumab. Further studies with long follow-up in different conditions will be needed to fully elucidate the safety profile of nemolizumab.

Aquagenic pruritus questionnaire – a new diagnostic tool for predicting potential myeloproliferative neoplasms in patients with aquagenic pruritus

Felix Witte¹, Elke Weisshaar², Martin Metz^{3, 4}, Koschmieder Steffen⁵, Susanne Isfort^{5, 6}, Kremer Andreas^{7, 8}, Martin Griesshammer⁹, Svenja Müller¹, Sonja Ständer¹, Claudia Zeidler¹

Aquagenic pruritus questionnaire – a new diagnostic tool for predicting potential myeloproliferative neoplasms in patients with aquagenic pruritus

Introduction & Objectives:

Aquagenic pruritus (AP) is an underrecognized condition in which patients perceive itch following contact with water on clinically non-lesional skin. AP is frequent in patients suffering from myeloproliferative neoplasms (MPN) such as polycythemia vera and may manifest several years prior to the development of MPN. To date, there is no patient reported outcome measure (PROM) assessing AP and its potential association with MPN.

Materials & Methods:

In this multi-phase study, a portfolio of 8 questions relevant to AP was developed and validated in a cohort of 77 AP patients with AP and 50 patients with chronic, non-aquagenic pruritus (CP). These questions were consequently reduced to those relevant for AP to distinguish between patients with and without a diagnosed MPN, resulting in the novel AP questionnaire (APQ). The APQ was validated in a cohort of 76 AP patients, 37 of whom suffered from an MPN, and 76 CP patients without AP. Finally, the predictive power of the APQ was retrospectively tested in the first cohort.

Results:

Four questions were identified as central in differentiating AP patients with and without MPN, forming the new APQ. The new APQ was validated successfully and achieved a sensitivity and specificity of 97.3% and 79.5%, respectively. Further, the new APQ classified 5 patients as AP patients with MPN who developed an MPN at a later stage.

Conclusion:

¹Section Pruritus Medicine and Center for chronic pruritus, Department of Dermatology, Münster, Germany

²Division of Occupational Dermatology, Department of Dermatology, Heidelberg, Germany

³Institute of Allergology, Charité - Universitätsmedizin Berlin, Berlin, Germany

⁴Fraunhofer Institute for Translational Medicine and Pharmacology, Immunology and Allergology, Berlin, Germany

⁵Department of Hematology, Oncology, Hemostaseology and Stem Cell Transplantation, Medical Faculty, RWTH Aachen University, Aachen, Germany

⁶Comprehensive Cancer Center, Medizinische Hochschule Hannover, Hannover, Germany

⁷Department of Medicine 1, University Hospital Erlangen, Erlangen, Germany

⁸Department of Gastroenterology and Hepatology, University Hospital Zürich, University of Zürich, Zürich, Switzerland

⁹University Clinic for Hematology, Oncology, Hemostaseology and Palliative Care, Johannes Wesling Medical Center Minden, University of Bochum, Minden, Germany

APQ is the first validated PROM for patients suffering from AP, detecting a potential relationship to MPN with high sensitivity. APQ is a useful addition to the standard of care in patients suffering from AP, potentially shortening the delay of MPN diagnosis.

Pruritus in Pregnancy: Is There a Link to Iron Deficiency?

Kerem Balan*¹, bunyamin palanci¹, Başak Armağan¹, leyla huseynova terzi¹, Duygu Gulseren Buyukdogan¹, Neslihan Akdoğan¹, Sibel Doğan Günaydın¹, Sibel Ersoy Evans¹

¹Hacettepe University Medicine Faculty, dermatology and venereology, ankara, Türkiye

Introduction & Objectives:

Pruritus is a dermatological condition that significantly impacts the quality of life. Although the association between iron deficiency and pruritus has been recognized for many years, its underlying pathophysiology remains unclear. During pregnancy, the increased demand for iron makes iron deficiency a common concern. In this study, we aimed to investigate the relationship between iron deficiency and pruritus in pregnant women without primary skin disorders, exploring its potential role in the etiology of pruritus during pregnancy.

Materials & Methods:

Pregnant women who applied to our clinic between December 2016 and December 2024 were included in the study. The study group consisted of two categories: pregnant women who presented with generalized pruritus and without primary skin disorders, and those who presented with complaints other than pruritus, such as cosmetic concerns, viral warts, and hyperpigmentation. Pregnant women who had a history of pruritus prior to pregnancy or take iron replacement therapy were excluded from the study. Two groups were compared based on age, gestational age, ferritin levels, vitamin B12 levels, hemoglobin levels, and total iron binding capacity.

Results:

A total of 99 pregnant patients, 31 in the pruritic group and 68 in the nonpruritic group, were evaluated. The mean age, ferritin levels, vitamin B12 levels, total iron-binding capacity, and hemoglobin levels were 28.9 ± 5.9 years, 24.0 ± 10.0 ng/mL, 161.4 ± 57.6 pg/mL, 436.4 ± 74.7 µg/dL, and 11.5 ± 1.3 g/dL in the pruritic group and 31.6 ± 5.3 years, 39.3 ± 21.9 ng/mL, 250.2 ± 117.2 pg/mL, 378.6 ± 110.9 µg/dL, and 12.3 ± 1.3 g/dL in the nonpruritic group, respectively. Univariate analysis showed significant differences between age, ferritin levels, vitamin B12 levels, total iron binding capacity, and hemoglobin levels (p-values: 0.026, <0.01, <0.01, 0.017, 0.006, and 0.03, respectively). In multivariate analysis, only low ferritin levels were found to be significantly associated with pruritus (p <0.001, OR: 0.76, 95% CI: 0.68 - 0.86).

Conclusion:

This study highlights the significant relationship between iron deficiency and pruritus in pregnant women without primary skin findings. Our results showed that low ferritin levels are strongly associated with the presence of pruritus which indicates iron deficiency may play a crucial role in its etiology during pregnancy. The results underscore the importance of assessing iron levels in pregnant women presenting with pruritus, as early identification and management of iron deficiency could potentially alleviate pruritus and improve maternal well-being. Further research is needed to better understand the pathophysiology of this relationship.

Pruritus in Scabies: A 15-Month Prospective Analysis of Its Semilogical Features

ouissal hormi¹, moujahid salma¹, zerrouki nassiba^{1, 2}, zizi nada^{1, 2}

¹Department of Dermatology Venereology and Allergology, CHU Mohammed VI, Oujda Morocco, Oujda, Morocco

²Laboratory of Epidemiology, Clinical Research, and Public Health, Faculty of Medicine and Pharmacy, Mohammed First University, Oujda, Morocco, Oujda, Morocco

Introduction & Objectives:

Scabies is a human ectoparasitosis caused by *Sarcoptes scabiei* var. *hominis*, responsible for intense and characteristic pruritus. This pruritus is often the primary reason for consultation and plays a key role in the diagnostic orientation. Its semilogical features, such as intensity, rhythm, triggering factors, and impact on quality of life, can vary from one patient to another and influence the clinical recognition of the disease. This study aims to analyze in detail the characteristics of pruritus in scabies patients to enhance the understanding of its manifestations and optimize diagnosis.

Materials & Methods:

We conducted a 15-month prospective, descriptive study in the dermatology department, including all patients who consulted for scabies.

Results:

The study included 75 patients, with a male predominance (56%) and an average age of 32 \pm 18.2 years.

All patients presented with diffuse pruritus of varying intensity, with an average score of 7.8/10 on the WI-NRS (Worst Itch Numeric Rating Scale). Nocturnal exacerbation was reported by 92% of patients, while 68% noted worsening after a hot shower. The distribution of pruritus corresponded to the classical locations of scabies, including interdigital spaces (89%), the anterior wrists (76%), the umbilicus (64%), and the genital region (52%). However, 11% of patients presented with unusual involvement, including the face and scalp. Pruritus was also aggravated by stress in 47%. The most common accompanying symptoms were pain (54%), a feeling of skin warmth (41%), and night sweats (39%). The impact on quality of life was significant, with 81% of patients suffering from sleep disturbances, including 39% with repeated night awakenings. After initiation of scabicidal treatment, paradoxical pruritus was observed in 37% of patients, persisting for an average of 6 days before complete remission.

Conclusion:

The pruritus of scabies presents well-defined semilogical features, dominated by its high intensity, nocturnal exacerbation, and worsening with heat. However, individual variations exist, particularly regarding localization and triggering factors. Recognizing these particularities is essential for improving diagnosis, especially in atypical or paucisymptomatic forms. Furthermore, evaluating the impact of pruritus on quality of life highlights the importance of early and appropriate management, including antipruritic measures in addition to scabicidal treatment.

When Collagen Pushes Through: Reactive Perforating Collagenosis in a Healthy Young Female

Anıl Tuna¹, İsmail Ünal¹, Mustafa Tunca², Gülçin Şimşek²

¹Sağlık Bilimleri Üniversitesi Ankara, Dermatovenerology, Ankara, Türkiye

Introduction & Objectives:

Reactive perforating collagenosis is a rare dermatological disorder characterized by the transepidermal elimination of collagen fibers. It is more commonly associated with systemic diseases in adults, whereas in younger individuals, it can present as an isolated condition. Factors such as mechanical trauma, atopy and surgical history may contribute to its pathogenesis. This case highlights the importance of recognizing reactive perforating collagenosis in young patients with chronic pruritus and excoriated lesions even in the absence of systemic disease.

Materials & Methods:

A 19-year-old with a 6-year history of pruritus affecting her legs, arms, and waist was evaluated. Symptoms worsened following razor epilation with nocturnal exacerbation. Physical examination revealed arms and legs exhibited widespread pruritic papules with excoriations. In the legs, there were areas of healed, light brown to purplish hyperpigmentation were noted, particularly in regions where razor epilation had been performed.

Results:

The patient's chronic pruritus had been misdiagnosed as neurodermatitis, leading to a delay in diagnosis. Systemic antibiotics had been ineffective. A diagnostic punch biopsy from the right leg was performed. Histopathology showed pustule formation within the stratum corneum, mild acanthosis and a superficial dermal infiltrate with eosinophils and lymphocytes. Serial sections confirmed transepidermal collagen elimination. Reactive perforating collagenosis was diagnosed and phototherapy was initiated.

Conclusion:

Reactive perforating collagenosis should be considered in young patients presenting with chronic pruritus and excoriated lesions even in the absence of systemic disease or family history. Early recognition and biopsy can prevent misdiagnosis and delays in appropriate management.

²Sağlık Bilimleri Üniversitesi Ankara, Pathology, Ankara, Türkiye

Real-world efficacy and safety of dupilumab in prurigo nodularis: 52-week results from the BioDay registry

Lian van der Gang^{*1}, Nienke Veldhuis¹, Octavian Bacoş-Cosma², Marijke Kamsteeg³, Floor Garritsen⁴, Simone Stadhouders-Keet⁵, Anneke van Lynden-van Nes⁶, Francine van Erp⁷, Wianda Christoffers⁸, Marlies de Graaf¹, Inge Haeck¹, Marie-Louise Schuttelaar², Marjolein de Bruin-Weller¹

¹National Expertise Center for Atopic Dermatitis, University Medical Center Utrecht, Utrecht, Netherlands

Introduction & Objectives:

In 2023 dupilumab became available as the first targeted treatment option for adults with moderate-to-severe prurigo nodularis (PN). Currently, real-world data on dupilumab in PN is limited. This study aims to evaluate the 52-week efficacy and safety of dupilumab in the prospective, multicentre BioDay registry.

Materials & Methods:

Adult patients treated (February 2023 - April 2025) with dupilumab for PN with bilateral distribution of at least 20 nodules were included. The primary endpoints were itch improvement and nodule reduction, measured by the proportion of patients with a ≥4-point reduction in weekly average itch Numeric Rating Scale (NRS) and the proportion of patients with Investigator Global Assessment for PN-Stage (IGA PN-S) 0/1 at weeks 28 and 52, respectively. Secondary outcomes include assessment of Dermatology Quality of Life Index, NRS sleep disturbance, and total eosinophil count (TEC). Primary dichotomous outcomes were analysed using logistic regression models with random intercepts and secondary continuous outcomes using linear regression models with an residual covariance matrix.

Results:

Seventy-two patients with moderate-to-severe PN were included (mean baseline IGA PN-S and NRS itch 3.4 ± 0.6 and 7.5 ± 1.7 , resp.). The median age was 66.0 (IQR 51.3-73.8) years, 54.2% (n=39) were female, and 64.8% (n=46) of patients had a history of atopy. The causative disease associated with PN was mostly unknown (50.0%, n=36) or atopic dermatitis (AD; 31%, n=43). Preliminary results based on 28- (n=43) and 52-week (n=29) as observed efficacy, showed a ≥ 4 -point reduction in NRS itch in 51.2% and 55.2%, respectively. IGA PN-S 0/1 was achieved by 41.9% and 41.4% at weeks 28 and 52, respectively. The proportion of patients achieving IGA PN-S 0/1 at week 28 was significantly higher in atopic versus non-atopic patients (65.2%, n=15/23 vs 17.6%, n=3/17; p=.003). The proportion of patients with ≥ 4 -point reduction in NRS itch did not differ significantly. IGA PN-S, NRS itch and sleep deprivation, DLQI and TEC decreased significantly over time (Figure 1). The most frequently reported adverse events were ocular surface disease (18.1%, n=13) and muscle or joint pain (12.5%, n=9). In total, 6 patients (8.3%) discontinued dupilumab treatment due to side effects (n=2), pregnancy (planning) (n=2), ineffectiveness (n=1), or patient preference (n=1).

²University Medical Center Groningen, Groningen, Netherlands

³Radboud University Medical Center, Nijmegen, Netherlands

⁴HagaZiekenhuis, Den Haag, Netherlands

⁵Reinier de Graaf Gasthuis, Delft, Netherlands

⁶Meander Medical Center, Amersfoort, Netherlands

⁷TerGooi Medical Center, Hilversum, Netherlands

⁸Isala Hospital, Zwolle, Netherlands

Conclusion:

Real-world 52-week results from the BioDay registry show that dupilumab effectively reduces both itch and skin lesions in patients with moderate-to-severe PN. Preliminary results suggest that atopic PN patients achieve higher nodule reduction than non-atopic patients. Although ocular surface disease was the most frequently reported adverse event, the incidence and severity appear to be lower than in AD patients treated with dupilumab.

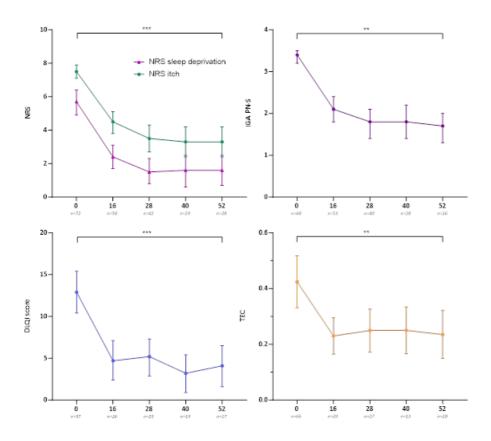


Figure 1. Secondary outcome measures over time. ** p < 0.01; *** p < 0.001; data presented as observed means, bars represent 95% confidence intervals.

Cross sectional Study To Assess Knowledge, Attitude and Practices among Adult Indian Women With Pruritus Vulvae

Pramod Kumar*¹, Sakshi Beotra¹, Deepti D'Souza¹

¹Kasturba Medical College Mangalore, Manipal Academy of Higher Education Manipal, Dermatology Venereology and Leprosy, Mangalore, India

Introduction & Objectives: Pruritus Vulvae (PV) is a common but covert women's health issue. It encompasses the occurrence of itch in the female intimate area. Women are often embarrassed to address it even with the doctors and they typically resort to self-medication.

This study is designed to find the prevalence of PV and the influencing factors. The study also garnered information on the awareness on PV, personal and menstrual hygiene practices of women.

Materials & Methods: This online cross-sectional study was conducted using Google forms to reach a wide array of adult women. The self-filled questionnaire with nearly 60 questions collected riveting data on PV and personal hygiene habits. Only completed forms were included.

Results: Responses of 360 adult women were evaluated. The youngest respondent with PV was 19 years old and the eldest was 67 years old. Nearly two in every five women had experienced PV in their lifetime. Most PV cases (46.2%) were reported from Western India. A significant association of PV was present with participants with excessive sweating The habit of tissue-drying their intimate parts was significantly linked to PV. Menstrual Hygiene, Grooming, Clothing habits and certain local customs had a role in manifestation of PV.

Conclusion: This study highlights the importance of evaluating the potential risk factors of PV. The study is directed towards galvanizing women to become more accepting of PV and thereby, seeking timely medical attention for it.

From Skin to Scalp: Mapping Pruritus Patterns and Their Association with PASI Scores in Psoriasis

Cecilia Lagalhard Victer¹, Beatriz dos Reis¹, Gabriela Magrani², Claudia Camargo¹, Marcia Ramos-e-Silva¹, Sueli Coelho Da Silva Carneiro*^{1, 3}

¹Clementino Fraga Filho University Hospital. Federal University of Rio de Janeiro, Medical Clinics, Rio de Janeiro, Brazil

Introduction & Objectives: Pruritus is a frequent and debilitating symptom in psoriasis, often linked to increased inflammation, particularly in cases of severe disease. Despite its high prevalence, the clinical characteristics and correlations between pruritus intensity and disease activity remain a topic of ongoing investigation. The aim of this study was to clinically characterize pruritus in patients with psoriasis and examine its correlation with disease activity.

Materials & Methods: This observational, cross-sectional study included 61 patients with psoriasis — 25 men and 36 women — with a median age of 42 years. Pruritus intensity was assessed using the Verbal Rating Scale for Pruritus, and cutaneous disease activity was evaluated using the Psoriasis Area and Severity Index (PASI).

Results:

- Prevalence and Intensity: Pruritus was reported by 54 patients (89%). Among them, 28 (46%) described mild to moderate pruritus, and 26 (43%), severe pruritus.
- Frequency and Timing: Most participants(34;77%) experienced pruritus at least once daily. Nighttime was identified as the period of greatest pruritus exacerbation by 20 patients(54%), followed by late afternoon in 9 cases(24%).
- Temporal Relationship: Pruritus was noted after lesion onset by 26 patients (58%), before lesions by 10 patients(22%), concomitantly by 2 patients(4.4%), and without a clear temporal relationship by 7 patients(16%).
- Localization: Pruritus predominantly affected the body(37 patients;84%) and scalp(30 patients;68%). Special areas involved included palms(8 patients), flexural regions(11 patients), and the genital area(7 patients). The most severe pruritus was reported on the legs(13 patients;31%), followed by the scalp and back (9 patients each).
- Correlation with PASI: Median PASI scores were: 4(IQR:3-4) for patients without pruritus; 8(IQR:3-12) for mild pruritus; 7(IQR: 3-10) for moderate pruritus; and 15 (IQR:5-20) for severe pruritus(p = 0.021). Most patients in all groups had a PASI ≤ 9. All patients without pruritus had mild psoriasis; in the mild and moderate pruritus groups, 10 patients(71%) each had mild disease; in the severe pruritus group, 11(42%) had mild, 8(31%) moderate, and 4(15%) severe psoriasis.

Conclusion: Pruritus affected more than 80% of patients, with a trend toward higher PASI scores observed in those with severe pruritus. Nocturnal itching was prevalent on the legs, back and scalp. Although the relationship between pruritus and PASI remains controversial, the pathophysiology of pruritus in psoriasis likely involves neurovascular and immunological pathways.

²Pit/Ebserh/HUCFF, Medical Clinics, Rio de Janeiro, Brazil

³State University of Rio de Janeiro, Medical Specialties, Rio de Janeiro, Brazil

Tofacitinib in chronic pruritus with or without nodular prurigo: An open label, non-randomized case series from low to medium income country

Santoshdev Pitambarbhai Rathod*¹, Pooja Shah¹, Ashish Jagati¹

¹Smt NHL Municipal Medical College, Smt SCL General Hospital, Department of Dermatology, Venereology & Leprosy, Ahmedabad, India

Introduction & Objectives:

Use of Janus Kinase Inhibitors (JAKis) are increasingly explored in chronic itchy skin conditions namely atopic dermatitis, prurigo nodularis and lichen planus. Clinical researchers are also studying their role in chronic pruritus of unknown etiology. While one of the JAKi, Baricitinib is approved for adults with moderate to severe atopic dermatitis who are candidates for systemic therapy. Non-availability and cost prevents its use in Low to Medium Income countries where treatment is not covered by national health insurance programs. Tofacitinib is readily available and very economical option in such setting, though it's non-selective inhibition of JAK/STATs is a limitation. Objective: To understand the efficacy and side-effect profile in a real world setting.

Materials & Methods:

An open label, non-randomized case series. Inclusion Criteria: Patients with chronic pruritus with or without skin lesion representative of nodular prurigo were included in the study. Exclusion Criteria: Patients having active infection, latent tuberculosis, cardiovascular disease, hypercholesterolemia and other known contraindications to Tofacitinib were excluded and treated with alternative safe systemic treatment option.

Results:

A total of 13 patients, six males and seven females with their age ranging from 40-year to 82-year of age, Itch duration ranging from 1-year to 12-year (Average 42.46 months) were given Tab. Tofacitinib 5 mg per oral twice daily for three months and were followed upto 1 year. Response to the medication was evaluated on the Numerical Rating Scale of 0 to 10. As a rescue option, tofacitinib was re-started in patient whom itch worsened after stopping active treatment. 11 of 13 patients (84.60%) responded marked on treatment with itch scores improving starting first week of the treatment. Two patients, (15.40%) did not show improvement. Two patients required hospital admission for systemic lung infection which resolved with treatment. Three patients had reactivation of Varicella Zoster Virus.

Conclusion:

Tofacitinib is effective and economical agent in chronic itchy conditions, however one need to be cautious with its use due to possibility of serious adverse events.



"Scars of Life": The Burden of Pruritus in Atopic Dermatitis - A Global Analysis of Its Impact on Quality of Life

Jonathan I. Silverberg¹, Roni Dodiuk-Gad², Roberto Takaoka³, Jerry Tan⁴, Chaoying Gu⁵, Thomas Luger⁶, Bruno Halioua⁷, Flavia Aslanian⁸, Cita Rosita Sigit Prakoeswa⁹, Anne-Laure Demessant-Flavigny¹⁰, Caroline Lefloch¹⁰, Nabil Kerrouche¹⁰, Stéphanie Merhand¹¹, Wendy Smith Begolka¹², África Luca de Tena¹³, SHULAMIT Burstein¹⁴, Delphine Kerob*¹⁰, Charles Taieb¹⁵, Charbel Skayem¹⁶, Therdpong Tempark¹⁷, Abraham Getachew Kelbore¹⁸, Alexander Stratigos¹⁹, Martin Steinhoff²⁰, Julien Seneschal²¹, Laurent Misery²²

¹The George Washington University School of Medicine and Health Sciences, Washington, District of Columbia., Department of Dermatology, Washington, District of Columbia., United States

²Bruce Rappaport Faculty of Medicine, Technion Institute of Technology,, Department of Dermatology, Haifa, Israel

³University of São Paulo Medical School Hospital,, Department of Dermatology, Sao Paulo, Brazil

⁴Western University, London, Ontario, Canada; Windsor Clinical Research Inc.,, Department of Dermatology, Windsor, Ontario, Canada., Canada

⁵Shanghai Institute of Dermatology, National Clinical Research Center for Aging and Medicine, Huashan Hospital, Fudan University,, Department of Dermatology, Shanghai, China

⁶University Hospital Münster, Department of Dermatology, Münster., Germany

⁷Société Française des Sciences Humaines de la Peau, [SFSHP],, Maison de la dermatologie, Paris, France

⁸Nuffield Health Parkside Hospital, Department of Dermatology, London, United Kingdom

⁹Faculty of Medicine, Universitas Airlangga - Dr Soetomo General Academic Hospital,, Surabaya, East Java,, Indonesia

¹⁰La Roche-Posay International, Scientific Communication, Levallois-Perret, France

¹¹Association Française de l'Eczema, Patients Experts, Redon, France

¹²National Eczema Association, Patients Experts, Novato, United States

¹³Asociación de Afectados por la Dermatitis Atópica, patient expert, Barcelona, Spain

¹⁴The Israeli Association for Atopic Dermatitis, Patients Experts, Tel Aviv, Israel

¹⁵European Market Maintenance Assessment, Patients Priority, Fontenay sous bois, France

¹⁶APHP - Hopital Ambroise Paré, Department of Dermatology, Boulogne Billancourt, France

¹⁷Faculty of Medicine at King Chulalongkorn Memorial Hospital at Chulalongkorn University in Bangkok, Department of Dermatology, Bangkok, Thailand

¹⁸Research Directorate office, Saint Paulo's millennium medical college, Addis Ababa, Ethiopia

¹⁹University of Athens School of Medicine Andreas Sygros Hospital,, Department of Dermatology, Athens, Greece

²⁰Hamad Medical Corporation, Doha, Qatar

²¹Hôpital Saint-André, CHU de Bordeaux, Department of Dermatology, Bordeaux, France

²²CHU de BREST, Department of Dermatology, Brest, France

Introduction & Objectives:

Atopic dermatitis (AD) is a chronic inflammatory skin disorder deeply impacting quality of life (QoL). Despite pruritus being a central symptom of AD, its specific influence on QoL remains poorly known in a global approach. This study aimed to address this gap by evaluating the global impact of pruritus on the daily lives of AD patients.

Materials & Methods:

This project is part of the "Scars of Life" initiative, dedicated to skin diseases, to examine and better understand life journeys related to dermatoses. An international cross-sectional observational study ("Scars of Life") was conducted in 27 countries using a structured digital survey developed with patient associations and international experts. A total of 15,223 individuals diagnosed with current AD participated. Pruritus severity was assessed using a visual analog scale (VAS), classifying patients into severe (≥7) and non-severe (<7) groups. QoL impact was measured using validated tools: PUSH-D, ABS-A, SOL, and the skin pain reported (VAS).

Results:

Among 9,956 patients reporting recent pruritus [in the last 7 days], 4,943 experienced severe pruritus (VAS \geq 7), while 5,013 had non-severe pruritus (VAS <7). The severe pruritus group included more women, slightly younger, and exhibited a higher AD severity overall versus the non-severe. These patients reported significantly more burning sensations (35.2% vs. 17.6%, p < 0.001), tingling sensations (36.2% vs. 22.3%, p < 0.001), skin pain (27.5% vs. 13.1%, p < 0.001), and active eczema scars (38.4% vs. 22.1%, p < 0.001). Severe pruritus strongly impacted all QoL dimensions, with significantly higher scores compared to the non-severe group: ABS-A (20.9 \pm 18.1 vs. 10.8 \pm 13.5, p < 0.001), SOL (26.7 \pm 29.2 vs. 13.8 \pm 20.5, p < 0.001), and PUSH-D (22.5 \pm 19.2 vs. 13.7 \pm 15.4, p < 0.001). In daily life, severe pruritus was associated with greater disruption to daily life (37.8% vs. 16.9%), restrictions on leisure activities (33.4% vs. 16.4%), a limitation in the choice of studies (35.1% vs. 18.8%) and a hindrance in their professional career (36.2% vs. 18.4%).

In addition to these daily challenges, the severe pruritus group is further burdened by emotional well-being issues, such as fatigue and mood swings, strained family and social relationships, pronounced social withdrawal, and increased financial pressures due to treatment costs.

Conclusion:

This study highlights pruritus as a significant independent determinant of QoL beyond skin symptoms alone. Severe pruritus profoundly affects personal, social, professional, and economic dimensions, leading to pronounced avoidance behaviors and stigmatization specifically, is essential for significantly improving the daily life among AD patients globally.

Prurigo nodularis: improved quality of life with the use of dupilumab

Marcel Alex Soares dos Santos*1, Monaly Ribeiro1, Stefani Ferreira2, Jose Alexandre Mendonça3

¹São Leopoldo Mandic, Campinas Unit, Campinas, Brazil

²UNIVAS - University of Vale do Sapucai, Pouso Alegre, Brazil

³Campus II PUC Campinas, Campinas, Brazil

Introduction & Objectives:

Prurigo nodularis is a chronic inflammatory dermatosis characterized by pruritic, firm, often lichenified, and difficult-to-manage papules and nodules. It mainly affects adults between 50 and 60 years of age, with a higher prevalence in women and African Americans. It is associated with atopic, neuropathic, systemic diseases, and psychiatric disorders. The pathophysiology involves persistent activation of sensory nerve fibers and Th2 cells, with release of IL-4 and IL-13, perpetuating pruritus, and inflammation. The treatment of patients with prurigo nodularis is challenging. New therapeutic options have been presented in recent years. We present below a case report of a patient with early onset prurigo nodularis with a high impact on quality of life.

Materials & Methods:

A 32-year-old man, a plastics industry worker, presented with intense pruritus for 6 years and the appearance of lesions initially on the hands, progressing to the arms, legs, and back. The lesions increased in size, thickness, and number, with constant pruritus, impact on sleep, and absences from work. The initial DLQI (Dermatology Life Quality Index) was 23. The patient used prednisone, methotrexate, antihistamines, doxepin, emollients, and topical corticosteroids, without improvement. On examination, the patient presented several erythematous-violaceous, lichenified, and excoriated papules and nodules on the hands, arms, back, abdomen, thighs, legs, and feet. The anatomopathological examination revealed hyperkeratosis, hypergranulosis, parakeratosis, irregular acanthosis with elongation of the epidermal ridges, and dermis with fibroblastic and capillary proliferation and chronic perivascular and interstitial inflammatory infiltrate, compatible with nodular prurigo. Dupilumab 600 mg every 2 weeks was started. After 6 months, there was significant improvement in pruritus, reduction in lesion thickening, and a DLQI of 6. The patient reported significant improvement in quality of life.

Results:

Prurigo nodularis lesions result from a cycle of pruritus and excoriation. The impact on quality of life is severe, greater than in psoriasis and atopic dermatitis, conditions in which pruritus is a prominent feature. Intractable pruritus, sleep disturbances, depressive symptoms, and impairment of daily activities may occur. Anxiety is estimated to occur in 37% of patients, depression in 29%, and suicidal ideation in 19%. The DLQI index helps to quantify this impact.

Treatment is challenging, traditionally based on topical or systemic corticosteroids, antihistamines, immunosuppressants such as methotrexate and thalidomide, and neurological modulators. Dupilumab, a monoclonal antibody that blocks IL-4 and IL-13 receptors, has demonstrated efficacy in controlling pruritus and lesions in refractory cases. Studies indicate improvement in symptoms and DLQI, with a good safety profile.

Conclusion:

Prurigo nodularis is a debilitating dermatosis with a major impact on quality of life. The case described illustrates

a young patient with refractoriness to conventional treatments and the efficacy of dupilumab in reducing symptoms and improving well-being. Early recognition and appropriate treatment are essential to interrupt the cycle of pruritus and excoriation, restoring the patient's functionality.

Chronic pruritus in the elderly from a tertiary referral hospital: a four-year follow-up

Tatiana Mina Yendo*¹, Larissa Relva da Fonte Gonçalves Endlich², Fabiana Lima Cirilo¹, Valeria Aoki¹

¹Faculdade de Medicina da Universidade de São Paulo (FMUSP), São Paulo

Introduction & Objectives:

Chronic pruritus (CP) characterizes as a persistent pruritus for over 6 weeks with several etiologies. Its prevalence in the elderly population is 25%, leading to impairment of their quality of life. The clinical and demographic profile of the patients is relevant for the correct diagnosis and treatment of CP. There is scarce data characterizing the chronic pruritus in the elderly.

We aim to evaluate the demographic and clinical features of elderly patients with CP followed up at a tertiary hospital.

Materials & Methods:

We analyzed the data from 149 patients above the age of 60 with CP, between 2021 and 2024.

Results:

The mean age of the analyzed group was 72 years old (range: 60 to 94), with a female predominance (n=91 of 149, 61%). Average length of the itching complaint was 3.5 years. The most affected anatomical site was the trunk (87%), and generalized pruritus was present in 48% of the elderly (n=72 of 149). The major reported cause of chronic pruritus was asteatotic pruritus in 42% (n=29 of 69) of those with a confirmed diagnosis. Chronic pruritus of unknown origin occurred in 17% of the patients, after excluding dermatological and systemic diseases. Other identified causes for itch were systemic diseases (10%), non-asteatotic eczema (10%), drug reactions (9%), autoimmune bullous disease 9% (bullous pemphigoid n=5, dermatitis herpetiformis n=1 and pemphigus herpetiformis n=1), prurigo nodularis (7%), scabies (6%,) psychogenic pruritus (3%), hypersensitivity reaction (3%) and neurological causes (1%.) Ten percent of the patients presented other causes for their chronic itch. Eosinophilia (>0.5 thousand cells/mm3) occurred in 15/149 (10%) of the patients and increased serum IgE levels (>100 IU/mL) was present in 29% (n=43 of 149) of the cases. The patients were treated according to their diagnosis. The Visual Analog Scale (VAS), which measures the intensity of itch from 1 to 10, had a reduction of 4.21 after the implementation of antipruritic treatment, which was based on topical emollients, topical steroids and oral antihistamines for patients with asteatotic pruritus and eczema. Patients diagnosed with autoimmune bullous diseases received specific treatment for the AIBD, leading to a significant reduction in VAS, evidenced by the reduction from the mean initial score of 7.7 to 3.7.

Conclusion:

Understanding the demographic and clinical characteristics of itch in the elderly patients is essential for an adequate antipruritic approach, leading to the achievement of better outcomes and improvement of the quality of life. Our findings show that chronic pruritus in the elderly from a referral tertiary hospital predominantly affected females in the seventies with a long history of pruritus and asteatosis reported in 37%. The predominant site was the trunk and antipruritic treatment led to a 4.21 reduction of VAS in cases of eczema and asteatotic pruritus and immunosuppressant therapy decreased VAS in 4.0 in bullous diseases.

²Hospital das Clínicas of the University of São Paulo, São Paulo

Sociodemographic and clinical characteristics of prurigo nodularis: findings from the ECOSPIN study

Ignasi Figueras-Nart*¹, Rafael Ortiz Castillo², ESTHER SERRA BALDRICH³

¹Department of Dermatology, Hospital Universitari Bellvitge, L'Hospitalet de Llobregat, Barcelona, Spain, Barcelona, Spain

Introduction and Objectives: Prurigo nodularis (PN) is a chronic skin disease characterized by hyperkeratotic and fibrotic papules and nodules, causing intense pruritus which significantly impairs quality of life. The epidemiology and clinical characterization of PN are not fully elucidated. The ECOSPIN study was designed to address these knowledge gap by investigating the sociodemographic and clinical profile of patients with PN in dermatology offices with the aim of improving patient care and outcomes.

Materials and Methods: A survey was conducted across Spain involving 40 dermatologists with ≥5 years of clinical experience and seeing atleast 3 patients with PN monthly during the previous year (including both new and follow-up cases) to ensure that they had enough expertise and experience to complete the questionnaire. Data collection utilized a 42-item questionnaire capturing aggregated information from each dermatologist's five most recent PN patient consultations.

Results: Among the 39 dermatologists who completed the questionnaire, the mean (SD) weekly number of patients seen was 112.7 (45.6). Of these, 3.4% were diagnosed with PN** Over the previous 12 months, the mean (SD) number of newly diagnosed PN cases was 19.1 (11.9). Women accounted for 61% of patients, and 29.1% were aged between 51 and 60 years.** The mean duration of PN since diagnosis was 50.7 months At the time of diagnosis, most dermatologists reported that patients experienced pruritus, and 60% attributed the condition to dermatological causes. The most commonly reported comorbidities were arterial hypertension (40%) and dyslipidemia (30%) (Figure 1). Additionally, 40% of patients with PN had concurrent atopic dermatitis, and 18% had allergic rhinitis (Figure 2). Based on the Worst Itch Numeric Rating Scale (WINRS), 50% of patients had severe pruritus (score 7–10). Furthermore, 35% (n=38) were classified as having severe disease according to an Investigator's Global Assessment (IGA) score of 4.

Conclusion: The ECOSPIN study reveals prurigo nodularis predominantly affects woman in their fifties with significant disease burden, characterized by severe pruritus and frequent comorbidities including atopic dermatitis, allergic rhinitis, hypertension, and dyslipidemia. These findings highlight the need for comprehensive management approaches addressing both PN and its associated conditions to improve patient outcomes.

²Sanofi-Aventis SA, Spain, SA, Spain

³Department of Dermatology, Sant Pau Hospital, Barcelona, Spain., Barcelona, Spain

Figure 1: Most common comorbidities associated with PN in patients

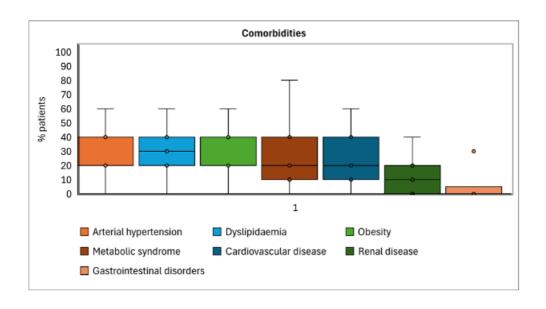
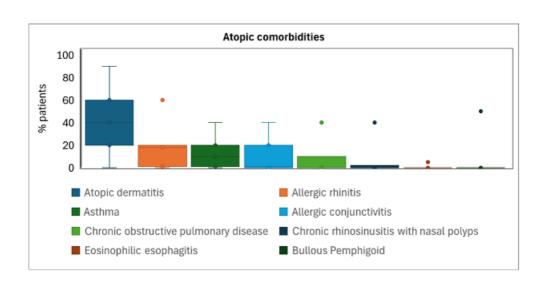


Figure 2: Most common atopic comorbidities associated with PN in patients



Hell's Itch: An Acute Reaction to Sunburn Exposure

Colin Kelly¹, Connor Stonesifer¹, Brian Morrison¹

¹University of Miami Miller School of Medicine, Miami, United States

Introduction & Objectives:

Hell's itch is an underreported neurocutaneous dysesthesia following sunburn. Despite active discussion online in articles, forums, and support groups containing thousands of members, only 4 peer-reviewed articles exist in the scientific literature regarding this condition. "Hell's itch" describes an acute, uncontrollable itch with associated intense stabbing pain that presents approximately 48 hours after a sunburn. It often follows an inciting event such as water exposure (ex. shower) or application of topical creams. Here, we present a case of Hell's Itch in a 24-year-old Caucasian male and a subsequent proposal of a pathophysiologic mechanism with therapeutic implications.

Results:

A patient presented to our dermatology clinic for a self-described episode of "Hell's Itch". The patient recalled a sunburn without blistering across his upper body and knees two days prior to the symptoms. The "Hell's itch" event occurred immediately after a warm shower with the resultant sensation described as "pins and needles"-like pruritus with immediate lightning-like pain that was sharp, random, and acute. The patient rated the associated pain as a 10/10 severity on a numerical rating scale. Alleviating factors included a tight-fitting T-shirt and the use of a lidocaine, diphenhydramine, and hydrocortisone combination cream. After initiating these measures, the incidence and severity of his pruritus and associated pain reduced. Symptoms continued at a "bearable" rate for several more hours and had completely resolved within 24 hours.

Conclusion:

Hell's Itch remains an understudied pathology with no treatment guidelines and few proposed pathophysiologic mechanisms. Existing pathophysiologic propositions include hypersensitivity of mechanosensitive nociceptors, a sensitized pain response to bradykinin release after sunburn, and neurogenic inflammation. We propose that this acute pruritic reaction may be due to nociceptor modulation through the release of Nerve Growth Factor (NGF). NGF is a neurotrophic protein known for its role in the development of sympathetic and sensory afferent neurons. However, a growing body of evidence now suggests NGF plays a role in nociceptor modulation in adulthood, leading to both allodynia and hyperalgesia. Furthermore, UV exposure stimulates the release of NGF; in combination treatment, UVB and NGF are supra-additive, lowering the sensory threshold and inducing pain without a traumatic stimulus. Given this understanding, we propose that the generalized inflammatory response of a sunburn may lead to increased NGF release and the hypersensitization of nociceptors in susceptible individuals. This hypersensitization leads to both thermal and mechanical hyperalgesia in the areas of the burn. An inciting event such as a shower could therefore cause rapid changes in skin temperature and lead to the pruritus and acute pain noted in this case and others.

An inhibitor of NGF or its receptors may provide effective treatment of this disorder. Lidocaine is an available modulator of NGF activity with evidence specifically in hyperalgesia reduction of NGF-injected skin. Of note, our patient did improve after lidocaine application. Despite considerable discussion in the public forum, Hell's Itch remains a heavily understudied phenomenon at the academic level. Continued research into NGF blockade as an analgesic presents a promising opportunity to treat this disorder and should be further examined.

Tolerance and efficacy of a spray containing Rhealba oat and zinc oxide in reducing symptoms of nonsevere and uncomplicated chickenpox in infants and children

Philippe Armony¹, Valérie MENGEAUD², Brocario Alexia*², Therese Nocera¹

¹Pierre Fabre Dermo-Cosmetics & Personal Care, R&D Department, Toulouse, France

²Pierre Fabre Dermo-Cosmetics & Personal Care, Laboratoire Dermatologique A-DERMA, Lavaur, France

Introduction & Objectives:

Chickenpox, caused by the varicella-zoster virus, is a contagious viral infection primarily affecting infants and young children. Characterized by an itchy rash with fluid-filled blisters, it typically occurs seasonally, with peaks in early spring and summer. Systemic symptoms include headache, fever, fatigue, and intense pruritus. The rash progresses through several stages, from papules to vesicles that rupture and crust over before healing. The lesions can vary in number, from a few vesicles to a widespread rash. We developed a dermo-cosmetic spray containing Rhealba oat and zinc oxide designed to repair, soothe, and dry skin affected by maceration.

The aim of this study was to assess the tolerance and efficacy of a spray in infants and children with non-severe and uncomplicated chickenpox.

Materials & Methods:

This monocentric, randomized, controlled study involved 22 infants and children subjects (9 months to 13 years old) with uncomplicated chickenpox. Subjects applied the dermo-cosmetic spray 2 to 3 times daily to one hemibody (determined by randomization), while the contralateral side served as an untreated control. As a dermo-cosmetic spray should not replace an antiseptic product, investigators were asked to introduce an antiseptic in case of suspicion of bacterial superinfection. The study duration was 15 days, with evaluations at days 1, 3, 8, and 15. Inclusion criteria required 5-10 early-stage lesions on each hemi-body; pruritus and discomfort >3 (scale of 0-10). Key outcomes included tolerance (dermatological assessment), changes in physical and functional signs, pruritus, discomfort, evaluation of drying and repairing efficacy by the investigator and global efficacy ratings by both subjects and investigators.

Results:

The tolerance was assessed as excellent by the dermatologist, with no adverse events reported. The spray demonstrated significant efficacy in reducing oozing, with a 79.7% decrease at D3 on the treated side (p<0.05) compared to the untreated side/area (p<0.05).

The product also provided significant relief for discomforts and pruritus, a particular bothersome symptom. Discomfort decreased by 16.6% (p<0.001) after the first application and continued to improve at each follow-up (61.3% at D3, 87.9% at D8; p<0.001), decrease significatively higher that on untreated side (p<0.05).

Pruritus was significantly reduced by 53.4% at D3 and 86.1% at D8 (p<0.001) compared to the untreated side (p<0.001). Investigator assessments indicated that 90.9% of subjects experienced very good drying efficacy and 77.3% experienced very good repairing efficacy by day 15.

Moreover, 100% of parents declared that the product has been useful during their child episode of chickenpox.

Conclusion: This study confirms the excellent cutaneous tolerance and clinical benefits of the spray containing oat

and zinc oxide in non-severe chickenpox. The product effectively addresses symptoms such as oozing, discomfort and pruritus, confirming its interest in the management of chickenpox. High subject/parents satisfaction and perceived efficacy suggest good adherence, making it a promising option for alleviating chickenpox-related discomfort.

A Rare Case of Multiple Cutaneous Leiomyomas Exhibiting Features of Reed Syndrome

ayat al zadjali¹, Noor Sammani², Aisha Al Zadjali³, Sunitha Ramachandra²

- ¹MOH, muscat, Oman
- ²armed forced hospital, muscat, Oman
- ³sultan Qaboos university, muscat, Oman

Introduction & Objectives:

Cutaneous leiomyomas are rare benign tumors originating smooth muscle, most commonly the arrector pili muscles. They appear as firm, skin-colored to reddish-brown papules or nodules. These lesions can be associated with symptoms such as pain or tenderness. They may appear sporadically or be linked to Hereditary Leiomyomatosis and Renal Cell Carcinoma (HLRCC), an autosomal dominant syndrome caused by mutations in the fumarate hydratase (FH) gene. HLRCC is significant due to its association with aggressive malignancies, including type 2 papillary renal cell carcinoma, uterine leiomyosarcoma, and other smooth muscle neoplasms. The diagnostic and management challenges posed by cutaneous leiomyomas highlight the need for careful clinical evaluation, histopathological confirmation, and genetic testing. This case report underscores the unique presentation of this rare dermatologic condition.

Materials & Methods:

A 46-year-old woman presented with a cluster of papules on her back. The lesions first appeared 7 years ago, doubling in number over time with slight pain and itching. On examination, multiple hyperpigmented, smooth dermal papules and nodules of varying sizes were observed. The lesions were mostly asymptomatic but occasionally caused slight pain. The patient had a history of uterine fibroids in her 30s for which she underwent myomectomy. Family history revealed that her 2 sisters had uterine leiomyomatosis. A skin biopsy confirmed the diagnosis of cutaneous leiomyoma.

Results:

Histopathological examination showed a nodular lesion with smooth muscle cells arranged in interlacing fascicles in the dermis. The cells show cigar-shaped nuclei with indistinct nucleoli and eosinophilic cytoplasm. Lymphoid aggregates are noted with no mitotic activity, atypia or necrosis. The overlying epidermis shows mild papillomatosis and pigment incontinence (figure 1).

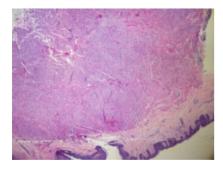


figure 1: haematoxylin and eosin (H&E) stain, x4 magnification, nodular lesion with smooth muscle bundles in the dermis.



Figure 2: immunohistochemistry (IHC) stain, x10 magnification, SMA positive muscle bundles.

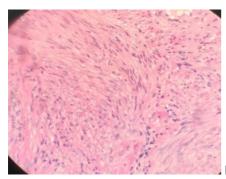


Figure 3: haematoxylin and eosin (H&E) stain, X40 magnification, cigar

shaped nuclei.

Given the patient's clinical presentation, surgical and family history, and histopathological findings, a diagnosis of multiple cutaneous and uterine leiomyomatosis, typical of Reed's syndrome, was established. The patient was referred for genetic testing to confirm the diagnosis, focusing on mutations in the fumarate hydratase (FH) gene.

Conclusion:

This case underscores the significance of recognizing cutaneous leiomyomas as a rare but clinically relevant entity. Their potential link to HLRCC requires a multidisciplinary approach to diagnosis and management, including genetic counseling and regular surveillance for systemic malignancies. Maintaining a high suspicion and relying on histopathological confirmation are essential in distinguishing leiomyomas from other dermatological conditions. Sharing individual cases adds to the collective knowledge, enhances diagnostic accuracy and management strategies. This case also reminds clinicians that dermatologic findings can reveal underlying systemic disease, emphasizing the value of a holistic approach to patient care.

Treatment of lichen sclerosus, prurigo nodularis and lichen simplex chronicus with fractional CO2 laser: a single centre experience.

Guillermo Lopez Gonzalez*^{1, 2}, Raúl Gutiérrez-Meré^{1, 2}, Sandra Martínez-Fernández^{1, 2}, Beatriz González Sixto^{1, 2}, Martina Espasandín-Arias^{1, 2}, Marcos Oro-Ayude^{1, 2}, Carmen Couselo-Rodríguez^{1, 2}, Victoria Martínez Sernández^{1, 2}, Emma Romeo Iglesias^{1, 2}, María Teresa Abalde Pintos^{1, 2}

Introduction & Objectives:

Fractional CO2 laser is a known and useful treatment in the therapeutic arsenal of lichen sclerosus (LS). Its role in the control of pruritus and improvement of lesions in prurigo nodularis (PN) and lichen simplex chronicus (LSC) is less well known, being a novel treatment scarcely reported. We aim to evaluate the efficacy of fractional CO2 laser therapy in patients with LS, PN and LSC.

Materials & Methods:

Descriptive observational study performed at the University Hospital of Pontevedra, including patients over 18 years of age with LS, PN and LSC treated with fractional CO2 laser (DEKA) in our centre between March 2023 and April 2025. Demographic, clinical, laser therapy and treatment response variables were collected.

Results:

23 patients were included (18/23 women): 13 LS, 8 PN and 3 LSC with a median age of 59, 63 and 52 years, respectively. All had been previously treated with super-potent topical corticosteroids (TCS) and were corticorresistant or corticodependent. Architectural changes were present in up to 77% of LS cases.

The median number of laser sessions was 2 for LS, and 3 for PN and LSC, with intervals of 1-2 months between sessions. CO2 laser parameters for PN and LSC were 26–50W, 800–100μs, 600–800μm, DP, stack 1–2; for LS: 20–30W, 400–1000μs, 600–900μm, DP, stack 1–2. Drug delivery with triamcinolone acetonide was performed in all PN/LSC and 40% of LS patients, followed by daily TCS maintenance for 2 weeks and twice per week until next session.

All patients experienced at least partial improvement in clinical signs and symptoms after the first session. The median baseline pruritus Visual Analogue Scale score was 7 (LS), 10 (PN), and 10 (LSC), decreasing to 5, 2, and 1, respectively, after one session. Median baseline Dermatology Life Quality Index score was 16 (LS), 13 (PN), and 14 (LSC), which improved to 8, 7, and 4, respectively. According to the Patient Global Impression of Improvement scale, 80% of patients described much or very much improvement after the first session. Among LS patients, the median baseline symptom score on the Clinical Lichen Sclerosus Score was 9, which decreased to 3 after one session. 92% of LS patients stated they would repeat the treatment and recommend it to others with the same condition. After a median follow-up of 4.5 months, no patient experienced clinical worsening or side effects.

Conclusion:

Fractional CO2 laser appears to be an effective and well-tolerated treatment for LS, PN, and LSC. Its ability to disrupt abnormal pruritogenic pathways and promote tissue remodeling may offer benefits in conditions where

¹University Hospital of Pontevedra, Pontevedra, Spain

²2.DIPO Research Group, Galicia Sur Health Research Institute (IIS Galicia Sur), SERGAS-UVIGO, Vigo, Spain

pruritus is central to pathogenesis, as well as in diseases characterised by architectural tissue changes that severely impact quality of life. Although the use of CO2 laser in LS is widely reported, we found only three studies showing its effectiveness in PN and LSC. Our study provides more evidence about the use of this technique in the treatment of LS, PN and LSC.

Mental Health Burden in Prurigo Nodularis: Results from the PN- paTient Reported burdEn of sicKness (PN-TREK) EU Real-World Study

Sonja Ständer¹, Min Yang², Bruno Martins², Abigail Zion², Joseph Zahn³, Kwinten Bosman⁴, Simmi Wiggins⁵, Ryan Thomas³, Donia Bahloul*⁶

- ¹Center for Chronic Pruritus, University Clinic Münster, Münster, Germany
- ²Analysis Group, Boston, MA, United States
- ³Regeneron Pharmaceuticals, Inc., Sleepy Hollow, NY, United States
- ⁴Sanofi, Amsterdam, Netherlands
- ⁵Sanofi, Reading, United Kingdom
- ⁶Sanofi, Gentilly, France

Introduction & Objectives:

Prurigo nodularis (PN) is a chronic inflammatory skin disease characterized by intensely pruritic nodules, primarily found on the trunk and extremities. PN is often associated with other type 2 inflammatory and systemic comorbid conditions leading to significant negative impact on patient quality of life and mental health. Patients with PN may experience an increased prevalence and severity of mental disorders, including psychological stress perception, anxiety and depression. However, data regarding the impact of itch on mental health are limited. The current study evaluated depression and anxiety stratified by itch intensity in PN patients from Europe (France, Germany, Italy, and the United Kingdom).

Materials & Methods:

This cross-sectional patient survey was conducted in adult patients (aged ≥ 18 years) with a self-reported diagnosis of PN for ≥ 3 months with active lesions (presence of ≥ 6 nodules, itch of any level in the 7 days prior to the survey, and history/signs of repetitive scratching, picking, or rubbing). Data were collected on patient demographics, clinical characteristics, itch intensity, and mental health. Itch intensity was assessed using the Worst Itch-Numeric Rating Scale (WI-NRS; 0–10, higher score indicating more severe itch intensity, 1-week recall). Mental health status was evaluated using Hospital Anxiety and Depression Scale (HADS; 0–21) for Anxiety (HADS-A) and Depression (HADS-D), with higher scores reflecting higher severity. Patients were stratified by WI-NRS (3–6 and ≥ 7) and HADS score (normal: 0–7, mild: 8–10, moderate: 11–14 and severe: ≥ 15). A cut-off score of ≥ 8 on either domain of HADS was considered suggestive of anxiety/depression. Between-group comparisons (WI-NRS 3-6 vs ≥ 7) were conducted using Chi-square tests.

Results:

Overall, 165 adult patients with PN (mean age [standard deviation, SD], 46.7 [13.6] years; 58.8% female; mean [SD] time since diagnosis, 7.5 [6.8] years) participated in the survey. Of the 165 patients, 30.3% (n = 50) and 67.3% (n = 111) patients had WI-NRS scores 3–6, and \geq 7, respectively. Among the study population, 13.9% and 26.7% patients from the survey self-reported having a diagnosis of comorbid anxiety and depression, respectively. However, 58.2% reported prior behavioral treatment and 55.8% of patients reported prior oral antidepressant use. Additionally, HADS screening identified possible anxiety in 77.0% (HADS-A \geq 8) and depression in 69.7% (HADS-D \geq 8) of patients. A higher proportion of patients with WI-NRS \geq 7 (vs WI-NRS 3-6) had HADS-A (82.0% vs 64.0%, p = 0.022) and HADS-D (73.0% vs 62.0%, p = 0.224) scores of \geq 8.

Conclusion:

Study findings suggests that patients experiencing severe pruritus are more likely to have associated anxiety and depression. The discrepancy between self-reported anxiety and depression and those assessed using HADS may indicate potential underdiagnosis and/or under reporting of the mental health burden in patients with PN. These findings emphasize the importance of evaluating mental health as part of routine PN patient management.

Skin Pain in Patients with Prurigo Nodularis: Results from the Real-World Patient Survey: PN-TREK EU Study

Sonja Ständer¹, Min Yang², Bruno Martins², Jingyi Liu², Simmi Wiggins³, Kwinten Bosman⁴, Joseph Zahn⁵, Ryan Thomas⁵, Donia Bahloul*⁶

¹Center for Chronic Pruritus, University Clinic Münster, Münster, Germany

Introduction & Objectives:

Prurigo nodularis (PN) is a chronic inflammatory skin disease characterized by intense pruritus and symmetrically distributed nodular, hyperkeratotic skin lesions. The intense pruritus in PN may lead to development of an itch-scratch cycle. Excessive scratching may contribute to both skin pain and neuropathic pain in patients with PN. However, evidence regarding the impact of itch intensity on the skin and neuropathic pain-related symptoms in patients with PN is limited.

Materials & Methods:

This cross-sectional patient survey included adult patients (aged ≥18 years) recruited from France, Germany, Italy, and the United Kingdom (UK) who had a diagnosis of PN for ≥3 months and were experiencing active disease (≥6 nodules, itch of any level, and history/signs of repeated scratching, picking, or rubbing). Data were collected on patient demographics, clinical characteristics, itch intensity, skin pain, and skin burning/stinging/tingling (surrogate for neuropathic pain). Itch intensity during the past week was estimated using Worst Itch-Numeric Rating Scale (WI-NRS; range 0–10). The intensity of skin pain, and skin burning/stinging/tingling in the past 7 days was measured using Skin Pain-Numeric Rating Scale (NRS) and skin burning/stinging/tingling-NRS (ranges for both NRS, 0–10), respectively. Higher NRS scores correspond to worse itch or more severe skin pain-related symptoms. Patients were stratified into WI-NRS categories, 3–6 and ≥7. Comparisons of mean scores between the two WI-NRS score categories were performed by t-tests. Continuous variables were summarized as mean and standard deviation (SD), whereas categorical variables were summarized as frequency and percentage.

Results:

A total of 165 patients (mean age [SD]: 46.7 [13.6] years; female: 58.8%) from France, Germany, Italy and the UK participated in the survey. The mean (SD) WI-NRS scores reported in the past 7 days was 7.0 (1.8), with 32.7% and 67.3% of the patients reporting a WI-NRS score of 3–6 and \geq 7, respectively. Overall, mean (SD) Skin Pain-NRS and skin burning or sting/tingling-NRS scores were 5.6 (1.9) and 5.7 (1.9), respectively. The intensity of skin pain and skin burning/stingling was higher in patients with WI-NRS scores \geq 7 (skin pain: 6.4 vs 4.3; skin burning/stingling: 6.5 vs 4.1, both P<0.001) in comparison to patients with WI-NRS 3–6.

Conclusion:

These findings show that skin pain and sensations of burning, stinging, or tingling correlate with itch intensity in

²Analysis Group, Boston, MA, United States

³Sanofi, Reading, United Kingdom

⁴Sanofi, Amsterdam, Netherlands

⁵Regeneron Pharmaceuticals, Inc., Sleepy Hollow, NY, United States

⁶Sanofi, Gentilly, France

patients with PN, and further suggest the activation of itch and pain transmitting neuronal pathways in PN.

Sleep Disturbance and Quality of Life Impact in Patients with Prurigo Nodularis in Europe: Results from the PN – paTient Reported burdEn of sicKness (PN-TREK) Study

Sonja Ständer¹, Bruno Martins², Min Yang², Jingyi Liu², Simmi Wiggins³, Kwinten Bosman⁴, Joseph Zahn⁵, Ryan Thomas⁵, Donia Bahloul*⁶

¹Center for Chronic Pruritus, University Hospital Münster, Münster, Germany

Introduction & Objectives:

Prurigo Nodularis (PN) is a chronic skin condition characterized by intensely pruritic nodules, typically affecting the extremities and trunk. The severe itching and comorbidities associated with PN lead to sleep disturbance and negatively impact patients' quality of life (QoL). There have been limited data available on the impact of PN on patients' QoL, stratified by itch categories. This study evaluated the impact of PN on sleep disturbance and QoL impairment experienced by adult European patients, stratified into different itch categories.

Materials & Methods:

A cross-sectional patient survey was conducted among adult patients with PN in France, Germany, Italy, and the United Kingdom (UK). Eligible patients were aged ≥18 years with a confirmed PN diagnosis and active PN lesions (≥6 active nodules, and itch in the past 7 days) for ≥3 months. Itch severity over the last 7 days was assessed using the Worst Itch-Numeric Rating Scale (WI-NRS). Patients were stratified based on WI-NRS scores (3-6 and ≥7). QoL and Sleep disturbance were assessed using the Dermatology Life Quality Index (DLQI; range: 0–30; DLQI ≥11 indicates a very large-to-extremely large impact) and Patient-Reported Outcomes Measurement Information System (PROMIS)- sleep disturbance (short form 8a, T-score range; 30.5–77.5; T-score ≥60 indicates moderate-to-severe sleep disturbance) questionnaires, respectively. Between group comparisons were performed using t-tests (continuous variables) and Chi-square/Fisher's exact test (categorical variables).

Results:

This study included 165 PN patients (mean age [standard deviation, SD]: 46.7 ± 13.6 years; 58.8% female) from France, Germany, Italy, and the UK. WI-NRS scores of 3–6 and ≥7 was reported in 30.3% (n = 50) and 67.3% (n = 111) of the patients, respectively. Overall, patients with PN reported a mean (SD) DLQI score of 13.3 (6.4). A significantly higher mean DLQI score was reported in patients with WI-NRS ≥7 in comparison to those with WI-NRS 3–6 (14.9 vs 10.3, p <0.001). A very large-to-extremely large impact on QoL and moderate-to-severe sleep disturbance was reported in 64.2% and 46.7% of all patients, respectively. A significantly higher proportion of patients with WI-NRS ≥7 (vs WI-NRS 3–6) reported a very large-to-extremely large impact on QoL (75.7% vs 42%, p < 0.001) and moderate-to-severe sleep disturbance (52.3% vs 38.0%, p = 0.132).

Conclusion:

Patients with PN reported considerable quality of life impairment and sleep disturbance, with greater impairment

²Analysis Group, Boston, MA, United States

³Sanofi, Reading, United Kingdom

⁴Sanofi, Amsterdam, Netherlands

⁵Regeneron Pharmaceuticals, Inc., Sleepy Hollow, NY, United States

⁶Sanofi, Gentilly, France

observed in patients reporting more severe itching. Treating physicians should consider QoL impact and sleep disturbance to optimize the disease management plan for PN patients.

Chronic Pruritus Unveiling Invisible Mycosis Fungoides: A Case Report

Assia El harti¹

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

Introduction & Objectives:

Mycosis fungoides is the most common cutaneous T-cell lymphoma. It typically presents with erythematous, scaly lesions such as macules, plaques, or nodules, often associated with pruritus. However, rare and atypical forms, described as "invisible," may occur in the complete absence of visible skin involvement, making diagnosis particularly challenging. This report aims to highlight a purely pruritic presentation, without any clinical cutaneous manifestation, that led to the diagnosis of mycosis fungoides.

Materials & Methods:

We report the case of a 40-year-old woman with no significant medical history, referred for generalized chronic pruritus persisting over eight months and unresponsive to conventional symptomatic treatments. Clinical examination revealed no visible skin lesions. Given the persistence of symptoms and absence of an identified cause, a comprehensive diagnostic approach was undertaken, including laboratory tests, imaging, and multiple skin biopsies.

Results:

Clinical examination showed no cutaneous lesions, lymphadenopathy, or organomegaly. The initial skin biopsy revealed a dense dermal lymphocytic infiltrate positive for CD3 and CD4, with negative CD8 and CD30. A second biopsy confirmed epidermotropism and a low proliferation index, consistent with an early, indolent cutaneous T-cell lymphoma. Peripheral blood analysis showed a moderately elevated CD4/CD8 ratio without circulating Sézary cells. Staging investigations ruled out extracutaneous involvement, confirming stage IB mycosis fungoides. Narrowband UVB phototherapy was initiated, with scheduled quarterly follow-up.

Conclusion:

This case illustrates a rare and deceptive presentation of mycosis fungoides, manifesting solely as chronic pruritus in the absence of visible lesions. It emphasizes the importance of maintaining a high index of suspicion in cases of persistent unexplained pruritus. Early diagnosis through skin biopsy and thorough workup is critical to enable timely management. Phototherapy offers an effective treatment option, requiring long-term monitoring due to the disease's potential for progression.

Risk Factors of Quality-Of-Life and Sexual Function Impairment in Chronic Spontaneous Urticaria Patients

Cyrine Smaoui¹, Mohammad Almomani¹, konstfntin Iomonosov¹

¹Sechenov First Moscow State Medical University (Sechenov University), moscow

Introduction & Objectives: Mood disorders and a low quality of life have been linked to chronic spontaneous urticaria (CSU). Nevertheless, these dimensions' contributing elements have not been adequately evaluated. Furthermore, research on sexual dysfunction (SxD) and CSU is lacking. Therefore, the purpose of this study was to determine the prevalence and possible impact of SxD in patients with CSU, as well as to analyze aspects related to quality of life.

Materials & Methods: Cross-sectional study of individuals with CSU. Validated questionnaires were used to gather data on sociodemographic and disease activity factors, quality of life, sleep, SxD, anxiety, and depression

Results: There were 35 patients total. Poor quality-of-life indices were linked to sexual dysfunction, female sex, and worse illness control (p < 0.001). SxD was found in 65% of patients who were male and 53.3% of patients who were female. Poor disease control was linked to SxD (p < 0.001). A lower quality of life (p = 0.02) and a higher incidence of anxiety (85,7%) and depression (94,2%) were linked to female SxD, but not to male SxD (p < 0.05).

Conclusion: Patients who are female or who have insufficient control over their CSU are more likely to have a lower quality of life. SxD appears to be common in CSU patients. Furthermore, compared to males, female SxD appears to have a more significant effect on mood disorders and quality of life. In the Urticaria Clinic, SxD assessment may be useful in identifying patients who are more likely to have a low quality of life.

The German National Registry of Chronic Prurigo (CPGBest): Objectives and Methodology

Wagner Jan Nicolai*¹, Claudia Zeidler², Sonja Ständer², Matthias Augustin³

¹University Clinic Hamburg-Eppendorf, Institute for Health Services Research in Nursing and Dermatology (IVDP), Hamburg

²Münster University Hospital, Münster, Germany

³University Clinic Hamburg-Eppendorf, Hamburg

Introduction & Objectives:

There is a paucity of systematic research investigating the long-term outcomes of chronic prurigo (CP) in dermatological routine care. Patient registries represent a methodology that enables the observation and analysis of long-term outcomes in the real world, within the context of medical practice. The German National Registry of Chronic Prurigo (CPG-Best) records and assesses the long-term efficacy, safety, patient benefit and treatment regimens of chronic prurigo.

We introduce the CPG-Best registry, a non-interventional, prospective cohort study designed to document the long-term effects of various treatment options for CP in routine clinical practice in Germany.

Materials & Methods:

A total of 500 adult patients diagnosed with CPG will be enrolled, with follow-up assessments scheduled at 0, 6, 12, and 24 months. Clinical and patient-reported outcomes will be collected through standardized questionnaires administered by dermatologists. The registry's organizational structure includes collaboration between the German Dermatological Society, the Professional Association of German Dermatologists, and the Center for Chronic Pruritus, ensuring high methodological standards while utilizing a web-based data collection system.

Results:

The target parameters include itch-related assessments, clinical outcome measures such as the numeric rating scale and the Prurigo Activity Score, and quality of life evaluations using validated instruments. Data will be analyzed to assess the efficacy, safety, and tolerability of CP treatments.

Conclusion:

The CPG-Best registry will provide real-time data and thus improve the care of patients.



Efficacy and Safety of Dupilumab in Prurigo Nodularis: 48-Week Real-World Clinical Practice Experience.

Francisco Javier León Pérez¹, Carmen García Moronta¹, Daniel Muñoz Barba¹, Sofia Haselgruber¹, Salvador Arias-Santiago¹, Trinidad Montero-Vilchez¹

¹Hospital Universitario Virgen de las Nieves, Department of Dermatology, Granada

Introduction & Objectives: Prurigo nodularis (PN) is a chronic inflammatory skin disease with a complex, neuroimmune-mediated pathogenesis. It manifests clinically with intensely pruritic papules and nodules, often multiple and symmetrical, which have a devastating impact on quality of life. Management of PN is often challenging due to its refractoriness to conventional therapies. Dupilumab is currently the only advanced therapy approved for PN treatment; however, real-world data on its long-term effectiveness and safety remain limited. The main of this study is to evaluate the effectiveness and safety of dupilumab in a cohort of adult patients with moderate-to-severe PN, treated under real-world clinical practice conditions.

Materials & Methods: An observational, prospective, single-centre study was designed. Adult patients (≥ 18 years) with an established clinical diagnosis of PN, classified as moderate or severe (e.g., IGA ≥ 3 or extensive/symptomatic involvement), who initiated treatment with dupilumab according to approved indications were recruited. Demographic variables, comorbidities, and a detailed history of previous PN treatments were collected. Outcome measures included: the Numerical Rating Scale (NRS, 0-10) for worst itch intensity in the last 24 hours, the NRS (0-10) to assess the impact of itch on sleep and the Investigator's Global Assessment (IGA). Assessments were performed at baseline and during follow-up at weeks 16, 24, and 48.

Results: Eight patients (75% male) were included, with a mean current age of 65 years and a mean age at disease onset of 56.4 years (SD 27.0). The most prevalent comorbidities were hypertension (62.5%), dyslipidaemia (37.5%), and type 2 diabetes mellitus (12.5%). All patients were refractory to many therapies, high-potency topical corticosteroids (100%), oral antihistamines (100%), systemic corticosteroid courses (62.5%), topical calcineurin inhibitors (37.5%), cyclosporine (37.5%), methotrexate (25%), and NB-UVB phototherapy (25%). Treatment with dupilumab resulted in a significant reduction in pruritus (NRS itch - 7.5 points, p=0.042) and IGA (- 1.5 points, p=0.021). A trend for improvement in NRS sleep scores was noted (-7.0 points, p=0.258). No serious adverse events or treatment discontinuations due to toxicity were reported during the observation period.

Conclusion: In our real-world clinical experience, dupilumab treatment in patients with moderate-to-severe PN, is associated with a significant and clinically relevant improvement in disease severity and over an extended follow-up period.

Understanding the Experiences of People Living with Chronic Pruritus of Unknown Origin: Development of a Disease Conceptual Model

Acquadro Michael¹, Zikos Efstathios², Dias-Barbosa Carla¹, Karen Bailey¹, Michel Anne Sophie³, Dubost-Brama Ariane², McCann Eilish⁴, Payan Marine⁵, Bahloul Donia², Brookes Ella⁶

¹evidera, Lyon, France

Introduction & Objectives: Chronic Pruritus of Unknown Origin (CPUO) remains a poorly defined condition with regard to CPUO-related symptoms and impacts. This study sought to explore patients' experience with CPUO and develop a conceptual disease model (CDM).

Materials & Methods: Following Institutional Review Board approval, one-to-one concept elicitation (CE) interviews were conducted with US adults who have CPUO with moderate-to-severe itch. Data were analyzed using thematic analysis.

Results: Twenty patients (mean age 42.7 years, 70% female) were interviewed; saturation was reached for both symptom and impact concepts. Patients reported 21 symptoms, i.e., itching (n=20), raw skin (n=17), dry skin (n=14), stinging (n=14), burning (n=14), bleeding (n=13), lesions (n=13), tingling (n=11), hot and cold sensation (n=11), skin pain (n=11), crust on skin (n=10), and darkening of the skin (n=10). Itch was reported as the worst symptom by more than half of patients (n=11), followed by skin pain (n=3), raw skin (n=2), and dry/rough skin (n=2). Six impact domains were identified including negative impact to patient's day-to-day activities (n=18), sleep (n=16), work/school (n=14), feelings/mood (n=13), and social life (n=11). Sleep disturbance was reported as the worst impact (n=10), which included impact on sleep quality, time needed to fall asleep, and duration of sleep.

Conclusion: The concepts identified during the interviews enriched a holistic CDM and highlighted a variety of skin symptoms causing sleep disturbance and frustration to patients. As the underlying mechanism of the disease remains to be confirmed, systematic subjective assessments of patients' quality of life in clinical trials are essential.

Funding: this study was sponsored by Sanofi and Regeneron.

Conflict of interest: AM, DBC, and BK are employees of Evidera, contracted to conduct the interviews. MAS is an employee of Mapi Research Trust. DBA, PM, BD, and BE are employees of Sanofi and may hold stock or stock options in the company. ME is an employee of Regeneron and may hold stock or stock options in the company. ZE is an external contractor working for Sanofi via Barrington James.

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²Sanofi, gentilly, France

³icon plc, Lyon, France

⁴regeneron pharmaceuticals, new york, United States

⁵sanofi, Massachusetts, United States

⁶Sanofi, reading, United Kingdom

Perceived Stress in Chronic Pruritus: Results of A Prospective Cohort Study in Atopic Dermatitis, Chronic Prurigo, and Chronic Pruritus on Non-Lesional Skin

Svenja Royeck¹, Johanna Papathanassiou¹, Angelika Weigel², Stefan Kahnert³, Christian Mess⁴, Konstantin Agelopoulos¹, Claudia Zeidler¹, Stefan W Schneider⁴, Sonja Ständer¹

¹University Hospital Münster, Department of Dermatology and Center for Chronic Pruritus (KCP), Münster, Germany

²University Medical Centre Hamburg-Eppendorf, Department of Psychosomatic Medicine and Psychotherapy, Centre for Internal Medicine, Hamburg, Germany

³University Hospital Münster, Department of Psychosomatic Medicine and Psychotherapy, Münster, Germany ⁴University Medical Center Hamburg-Eppendorf, Department of Dermatology and Venereology, Hamburg, Germany

Introduction & Objectives: Chronic pruritus (CP; \geq 6 weeks) is a complex, persistent somatic symptom influenced by biological and psychological factors. While CP is a hallmark feature of chronic prurigo (CPG) and atopic dermatitis (AD), it can also present on non-lesional skin (CPNL). Perceived stress has been shown to intensify pruritus severity and negatively impact quality of life in several dermatological diseases, yet its contribution to the persistence of CP and its potential effects on treatment outcomes remain insufficiently understood. Our objective was to investigate perceived stress and characteristics of pruritus-associated stress in patients with AD, CPNL and CPG.

Materials & Methods: In a prospective cohort study at a tertiary university center, eligible CP patients with CPG, AD and CPNL (inclusion criteria: ≥18 years, German language comprehension) underwent structured open interviews to identify characteristics of pruritus-associated stress. The worst pruritus intensity during the past 24 hours was measured using a numerical rating scale (WP-NRS, range: 0–10), and perceived stress was assessed with the Perceived Stress Scale (PSS-10, range: 0–40) and the Perceived Stress Questionnaire (PSQ-30, range: 0–1). Statistical analysis included descriptive analyses, Kruskal Wallis test for disease group comparisons and Spearman's correlation.

Results: Data from n= 31 adults with CP (n= 11 with AD, n= 10 with CPG and n= 10 with CPNL) were analyzed (mean age 51.03 ± 15.64 years; 51.6% female; WP-NRS: 5.84 ± 2.88). Elevated stress levels were observed across all patient groups (mean PSS-10: PSS-10: 17.74 ± 7.28 , mean PSQ-30: 0.42 ± 0.19). In the qualitative interviews, all patients reported experiencing restlessness, nervousness, and stress attributable to CP. A substantial proportion of participants (70.97%) indicated heightened irritability and increased conflict proneness, while 67.7% observed CP exacerbations during stressful situations. Notably, 93.5% described a compelling urge to scratch more frequently and/or intensely under stress. The Kruskal-Wallis test showed no significant difference of perceived stress between the groups (PSS-10: H(2) = 1.79, p = 0.41; PSQ-30: H(2) = 0.39, p= 0.82). There was a weak, non-significant positive correlation between perceived stress and pruritus intensity (WP-NRS) (PSS-10: Spearman's ρ = 0.271, p = 0.140; PSQ-30: Spearman's ρ = 0.274, p = 0.135).

Conclusion: Perceived stress is common in CP patients and frequently triggers increased pruritus and scratching. Although no significant differences in stress levels or correlations with CP intensity were found between groups in our cohort, the high prevalence of stress-related symptoms highlights the need for routine assessment and targeted stress management in CP care. Larger studies are warranted to further clarify the relationship between stress and chronic pruritus.

Comparative Analysis of Patient Needs and Treatment Goals in Atopic Dermatitis and Chronic Pruritus on Non-Lesional Skin with Atopic Skin Diathesis

Svenja Royeck¹, Claudia Zeidler¹, Christian Mess², Stefan M Kahnert³, Bernd Löwe⁴, Angelika Weigel⁴, Felix Witte¹, Volker Huck², Lynhda Nguyen², Matthias Augustin⁵, Gina Frank³, Konstantin Agelopoulos¹, Henning Wiegmann¹, Ansgar Köchel³, Rupert Conrad³, Gudrun Schneider³, Stefan W Schneider², Sonja Ständer¹, Inga Hansen-Abeck², Finn Abeck²

¹University Hospital Münster, Department of Dermatology and Center for Chronic Pruritus (KCP), Münster, Germany

²University Medical Center Hamburg-Eppendorf, Department of Dermatology and Venereology, Hamburg, Germany

³University Hospital Münster, Department of Psychosomatic Medicine and Psychotherapy, Münster, Germany ⁴University Medical Centre Hamburg-Eppendorf, Department of Psychosomatic Medicine and Psychotherapy, Centre for Internal Medicine, Hamburg, Germany

⁵Institute for Health Services Research in Dermatology and Nursing (IVDP), University Medical Center Hamburg-Eppendorf (UKE), Hamburg, Germany

Introduction & Objectives: Chronic atopic pruritus (CP; \geq 6 weeks) represents a prevalent symptom in patients with atopic skin diathesis (ASD) and atopic dermatitis (AD). It may manifest on non-lesional skin (CPNL) or on lesional skin (eczema). Despite the clinical relevance of CP phenotypes, systematic investigations into phenotype-specific patient needs and therapeutic objectives remain scarce, highlighting a critical gap in personalized management strategies. Our objective was to analyze the patient needs and treatment goals in a large cohort of patients with CP associated AD (CP-AD) compared to those with CPNL and ASD (CPNL-ASD).

Materials & Methods: A comparative analysis of patient-reported outcomes (PROs) was conducted between patients with CP-AD and CPNL-ASD. Outcomes assessed included pruritus intensity (via the Numeric Rating Scale [NRS]), health-related quality of life (HRQoL; using the Dermatology Life Quality Index [DLQI] and ItchyQol), psychological burden (Hospital Anxiety and Depression Scale [HADS]), and treatment-related needs/benefits (Patient Needs Questionnaire [PNQ] of the Patient Benefit Index-Pruritus [PBI-P]). Age- and gender-matched cohorts were analyzed through descriptive statistics, hypothesis testing (unpaired 2-sample t-tests, χ^2), and correlation analyses (Pearson's r) to identify intergroup differences and associations.

Results: Data from n = 1,086 adults with chronic atopic pruritus (n = 529 with CP-AD, n = 557 with CPNL-ASD) were analyzed (mean age 49.7 ± 19.0 years; 55.7% female). Both groups reported moderate pruritus intensity and similarly high overall needs, with pruritus relief, finding a clear diagnosis and therapy, and having confidence in the therapy as top priorities. Only two of 27 needs differed significantly between groups (pain relief and being able to engage in normal leisure activities, p < 0.05). Quality of life impairment was greater in CP-AD than CPNL-ASD (ItchyQol, DLQI; p < 0.05) and was associated with the importance of treatment goals.

Conclusion: This study demonstrates that disease burden is elevated in both chronic atopic pruritus phenotypes but is significantly higher in patients with inflammatory skin lesions. However, treatment goals are largely consistent across phenotypes and levels of disease burden, with a 92.6% match.

When Access Fails, Technology Prevails: Telemedicine for Refugees and Isolated Patients

Areg Chalabyan*¹, Gegham Barseghyan², Amélie Osio³, Irene Kosseian-Bal⁴, Barouyr Bardoujian⁴, Alain Hovnanian⁵

Introduction & Objectives:

Teledermatology has become a crucial tool for remote dermatological care, especially in regions with political instability, where in-person access is limited. It allows detailed consultations via digital platforms, offering flexible communication and treatment adjustments. Despite challenges like reduced diagnostic accuracy, teledermatology is vital in managing cases under extreme conditions, providing essential medical and psychological support.

Materials & Methods:

A male patient, born in 1958, Armenian refuge from Nagorno Karabakh, experienced severe pruritus in 2020, coinciding with the war challenges. The itch was rated 10/10 by the patient on a visual analog scale, accompanied by xerosis, lichenification, hyperpigmentation, excoriations, and nodular lesions. Initial biopsies suggested mycosis fungoides, and treatment with topical steroids, UVB therapy, and emollients led to temporary remission. However, the disease relapsed after two months during forced displacement. A second biopsy sent to France ruled out mycosis fungoides. Based on clinical evaluation, the patient was diagnosed with generalized Prurigo Nodularis, likely triggered by severe psychotic stress. The patient was treated with methotrexate (15 mg/week), ultra-potent corticosteroids, and emollients, achieving remission.

In December 2022, a blockade further isolated the population, cutting off access to food and medical supplies. Despite these challenges, teledermatology played a critical role in managing the patient's relapse. Remote consultations provided psychological support and therapy adjustments, including increasing methotrexate to 20 mg/week and adding amitriptyline. Ultimately, the patient achieved remission through continuous teledermatological care until September 2023, when the blocked was lifted.

Results:

Despite the patient's extremely challenging life circumstances—including war-related displacement, psychological trauma, and prolonged blockade—teledermatology significantly improved the quality of care. The patient's access to consistent follow-up, timely treatment adjustments, and emotional support via remote consultations led to sustained remission of generalized Prurigo Nodularis.

With the rising integration of artificial intelligence (AI) into medical practice, experts increasingly recognize that a combined approach—doctor + AI—delivers superior outcomes compared to either alone. Looking ahead, integrating AI with teledermatology may further elevate the standard of care in underserved areas. It raises a compelling question for future exploration: might the formula

Teledermatology + AI > Teledermatology alone or AI alone,

¹Armenian RMC, Yerevan, Armenia

²National Center For Dermatology Of MOH Of RA, Yerevan, Armenia

³Centre National de Dermathopathologistes independants, Paris, France

⁴Saint-Louis hospital, Paris, France

⁵Necker hospital, Paris, France

and possibly even

Teledermatology + AI > In-person consultation

in certain contexts?

Conclusion:

Teledermatology, while not a complete substitute for in-person care, has proven indispensable in extreme situations. This case highlights its effectiveness in managing complex dermatological conditions during crises, emphasizing the need for further development of teledermatology as a crucial tool in healthcare delivery.

Severe nodular prurigo refractory to systemic treatments, in which dupilumab provided successful improvement in the lesions and in the patient's quality of life: case report

Alejandra Juarez¹, Pamela Rodríguez Salgado¹, Mariana Escamilla¹

¹Hospital General de México "Dr. Eduardo Liceaga", MÉXICO, Mexico

Introduction & Objectives:

Nodular prurigo is the most common clinical subtype of chronic prurigo (CP), clinically defined by the presence of multiple hyperkeratotic papules or nodules. It may manifest in localized areas, but is generally disseminated and symmetrically distributed, affecting the extensor surfaces of the extremities and trunk. The "butterfly sign" may be observed on the back, as the patient is unable to scratch this area.

In Mexico, there are very few reported cases of prurigo nodularis.

Is demonstrated that the IL-4 receptor, IL-4Ra, is directly expressed on sensory neurons in both mice and human dorsal root ganglia; that expression of Th2 cytokines (IL-4, IL-13, and IL-31) directly activates dorsal root ganglia sensory neurons; and that IL-4Ra ablation decreased chronic itch in a mouse model.

Dupilumab is a human monoclonal IgG antibody that occupies the shared alpha subunit receptor site for IL-4, blocking the effects of IL-4 and IL-13 signaling pathways, which are key upstream drivers of Th2 pathways that modulate a multitude of downstream targets, such as IL-5 and IL-31. In 2022, treatment with dupilumab was specifically approved for CP.

Materials & Methods:

We present the case of a 39-year-old man, a clothing retailer with no history of chronic degenerative disease, who is known to be allergic to metronidazole and ketorolac. His medical history includes an unspecified dermatosis that began 22 years ago on the lower and upper extremities. He was treated in 2018 with thalidomide, in 2021 with Cyclosporine A, as well as narrow-band phototherapy, with little improvement. Due to the pandemic, he discontinued treatment and presented in September 2023 with an exacerbation of the clinical symptoms that had been present for two months. Clinically, a disseminated dermatosis with 64% affected body surface. Composed of multiple, numerous excoriated nodules. On the lower extremities, the lesions form infiltrated, erythematous-violaceous plaques with well-defined, irregular borders.

A biopsy was scheduled, revealing compact hyperkeratosis with focal parakeratosis. The epidermis showed moderate and irregular acanthosis with areas of severe acanthosis, as well as moderate spongiosis. In the dermis, mild congestion of the superficial vascular plexus was accompanied by a moderate inflammatory infiltrate composed of lymphocytes, which also adopted a diffuse stromal distribution, thickening of collagen fibers with laminated fibroplasia, and hypertrophy of neural tissue. Therefore, the clinical and histopathological diagnosis of prurigo nodularis was confirmed.

Given the therapeutic failure of the previously offered regimens, and given the availability of the treatment, we restarted subcutaneous injections of dupilumab in the standard Atopic Dermatitis dosing regimen (600 mg induction dose followed by 300 mg every 2 weeks thereafter).

Results:

Baseline patient-reported numeric rating scale itch intensity (NRSi) was recorded prior to therapy initiation. And in two last visits, after 4 months of treatment, the patient reported an NRSi of 0.

Conclusion:

Under dupilumab therapy, our patient experienced a rapid clearing of the prurigo nodularis rash. The complete and sustained response with the lack of side effects, highlights dupilumab as a promising treatment to fill the unmet need of successful therapeutics in severe and recalcitrant prurigo nodularis.

Evaluation of the tolerance and efficacy of a shampoo and a spray containing polidocanol in patients with anti-cancer treatment and suffering of trichodynia and scalp discomfort sensations

Mélanie Froliger¹, Karine Bouyer¹, Virginie TURLIER¹, Alexia Brocario², Valérie HECHT², Valérie MENGEAUD*²

¹Pierre Fabre Dermo-Cosmetics & Personal Care, R&D Department, Toulouse, France

²Pierre Fabre Dermo-Cosmetics & Personal Care, Laboratoire Dermatologique Ducray, Lavaur, France

Introduction & Objectives:

Trichodynia refers to the painful sensation of the scalp associated with pruritus, burning and tightness sensations is a syndrome currently related to the anti-cancer treatment. Temporary gentle cosmetic care can be useful for relieving these unpleasant scalp sensations. The aim of this study is to assess a shampoo, and a spray used alone or in combination on scalp discomfort in patients with cancer treatment. Previous clinical studies have demonstrated that spray and shampoo containing polidocanol are very well tolerated and have a significant efficacy on reducing intensity symptoms of scalp discomfort in adults with reactive scalp.

Materials & Methods:

This monocentric, non-randomized open trial was conducted in patients being under cancer treatment (chemotherapy, radiotherapy) or who have done a cancer treatment and feeling discomfort on their scalp at moment of inclusion. Spray was applied at least twice a day and could be used as often as necessary in case of discomfort. Shampoo was done as often as necessary. Efficacy and tolerance were assessed by dermatologists and patients after the first application, during and after 1 week and 2 weeks of applications depending on the criterion. The evaluation included auto-assessment of the scalp discomfort sensations (itching, stinging, skin tightness, pain and burning sensations), auto-assessment of scalp discomfort sensations during the first week only for the spray according to a Numerical Rating Scale (0-10), evaluation of the impact of 5 sensations on scalp with a 3S scale sensitivity scalp rated in 5 levels (from 0 to 4) for itching, prickling/tingling, tightness, burning, pain (Misery et al.) and cosmetic acceptability and perceived efficacy questionnaire. Clinical examination of the scalp by dermatologist and adverse events were assessed before and after applications.

Results:

33 patients were included with a mean age of 57 years old (age range 20 to 82 years old), all subjects presenting at inclusion an intensity of itching score \geq 4 within 72h prior to inclusion and pruritus score \geq 2 on NRS scale (from 0 to 10) on the day of inclusion and a total sensitivity 3S score \geq 4 at inclusion. 19 subjects were undergoing systemic cancer treatment and 14 subjects who had done a systemic cancer treatment. The shampoo in association with spray decreases significantly the intensity of itching (-90%), stinging (-100%), tightness (-96%), intensity of pain (-95%) and burning sensations (-96%) of the scalp after 21 days of use. The daily pain and pruritus assessments, both before (T0) and 10-30 minutes after (T10-30) spray application over a 7-day period, reveal a significant and progressive reduction. The impact of 5 sensations on scalp with a 3S scale sensitivity scalp decreases significantly for 100% of the patients. Shampoo and spray are judged as having a very good dermatological tolerance. The product's acceptability regarding cosmetic effects on hair and scalp is very good.

Conclusion:

Our study's results show that the shampoo and spray containing polidocanol has beneficial effects for relieving the unpleasant scalp sensations and trichodynia in patients with cancer treatment. We conclude that the

accompaniment with dermo-cosmetic hair care in cancer treatment has its importance during the establishment of the treatment strategies.

Beyond uremic pruritus: the value of skin biopsy in chronic pruritus in hemodialysis patients

Wydad Boudi¹, Mohamed El Amraoui¹, Soukaina El Mellouki¹, laila alami¹, Youssef Zemmez¹, Ilyass Anouar¹, Tarik Hanafi¹, Jjawad El-azhari¹, Omar Bousi¹, Rachid FRIKH¹, Hjira Naoufal¹

¹Rabat, Rabat, Morocco

Introduction & Objectives:

Chronic pruritus can be seen in hemodialysis patients. Its etiology can be multiple and not always easy to identify, especially when there are no visible skin lesions. A good clinical assessment is important to find the exact origin and guide treatment.

Materials & Methods:

We describe the case of a 74-year-old man, on regular hemodialysis for the past 10 years due to vascular nephropathy. He had diffuse itching for several months without rash. No history of atopy or drug allergy. Blood tests were done: CBC, calcium/phosphate, liver enzymes, immunoelectrophoresis, hormones. A skin biopsy was also performed because no skin findings other than xerosis and scratch marks (excoriations) were seen on clinical examination.

Results:

Biological tests showed elevated parathyroid hormone (PTH: 1441 pg/ml), monoclonal gammopathy (3.3 g/L), and vascular calcifications. The skin biopsy showed lichenoid dermatitis, in favor of lichen planus. Other common diagnoses like uremic pruritus, xerosis or prurigo of dialysis were ruled out. After starting topical steroids and antihistamines, the patient improved significantly. This kind of association between lichen planus and long-term dialysis is rare, but some similar cases are found in the literature.

Conclusion:

In dialysis patients, chronic pruritus should not always be attributed to common causes. If itching is resistant and no clear cause is found, lichen planus should be part of the differential. Skin biopsy is very helpful in such situations and can lead to better management.

Biphasic Cutaneous Amyloidosis in a Young Female: A Rare and Challenging Diagnosis

Soukaina El Mellouki¹, laila alami¹, Wydad Boudi¹, Yasmine Farai¹, Mohamed El Amraoui¹, Rachid FRIKH¹

¹Mohammed V Military Hospital, Dermatology, Rabat, Morocco, Dermatology, Rabat, Morocco

Introduction & Objectives:

Cutaneous amyloidosis represents a rare form of dermatological disease characterized by extracellular deposition of amyloid fibrils within the skin. Among its localized subtypes, biphasic amyloidosis is notable for presenting both lichen and macular morphological features, often manifesting as pruritic, hyperpigmented lesions with a chronic evolution. Due to its nonspecific clinical appearance, it may be misdiagnosed as other chronic inflammatory dermatoses. This case aims to illustrate the clinical, dermoscopic, and histopathological features of biphasic amyloidosis in a young adult female.

Materials & Methods:

A 25-year-old female with a past medical history of scalp psoriasis presented with a six-month history of pruritic, hyperpigmented maculopapular lesions involving the cervical region, trunk, upper limbs, and dorsal surface. The lesions exhibited an irregular reticulated configuration. Dermoscopy revealed diffuse brownish pigmentation with dotted structures arranged in a honeycomb-like reticular pattern. A skin biopsy showed moderate epidermal acanthosis and papillomatosis, overlaid by compact orthokeratotic hyperkeratosis. In the dermal papillae, between the rete ridges, eosinophilic, structureless, and laminated deposits were observed, displacing surrounding nuclei and staining positively with PAS and crystal violet—confirming amyloid deposition. Based on these findings, the diagnosis of biphasic cutaneous amyloidosis was made. Treatment included ten sessions of phototherapy, topical corticosteroids, and oral antihistamines.

Results:

The clinical, dermoscopic, and histopathologic findings led to a definitive diagnosis of biphasic cutaneous amyloidosis. The patient was treated with a multimodal regimen comprising narrowband UVB phototherapy (10 sessions), topical corticosteroids, and oral antihistamines. Symptomatic improvement and partial resolution of pigmentation were observed during follow-up.

Conclusion:

Biphasic amyloidosis is a rare clinical entity often diagnosed late due to its misleading appearance. This case underscores the diagnostic challenges associated with biphasic cutaneous amyloidosis and the pivotal role of histopathology in confirming diagnosis. Integration of clinical, dermoscopic, and pathological data is vital for prompt identification and effective management. Early recognition and individualized therapy may enhance patient outcomes and reduce disease burden.

Itching for Answers: Pruritus and Its Association with Common Cutaneous Malignancies

Sara Alsammerai¹, Amritpal Kooner², Rawle Amandeep Sekhon³

¹Ohio University Heritage College of Osteopathic Medicine, Dublin, United States

²Chicago College of Osteopathic Medicine, Downers Grove, United States

³Windsor University School of Medicine, St. Kitts, United States Minor Outlying Islands

Introduction & Objectives:

Pruritus Cancers have often been categorized as benign and having nonspecific symptoms, yet they are increasingly becoming recognized as a potential harbinger of systemic diseases, including malignancy. Despite associations with both hematologic and solid-organ cancers, the connection to cutaneous malignancies has been relatively unexplored in population-based datasets. With the rising prevalence of skin cancer and its presence as the most commonly diagnosed malignancy in the United States, pruritus may serve as an early clinical clue which warrants further investigation.

We conducted a retrospective case-control study using data from the NIH All of Us Research Program to examine the relationship between pruritus and the three most common forms of skin cancer: basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and melanoma. The national cohort dataset includes diverse participants across various racial, ethnic, and socioeconomic backgrounds which allows for robust epidemiological analysis accounting for demographic variability often underrepresented in dermatologic research.

Materials & Methods:

Cases of chronic pruritus were identified using the Systematized Nomenclature of Medicine (SNOMED) code 418363000 and/or the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) code L29.9 in the All of Us Research Program. Cases were matched with four control subjects using nearest-neighbor propensity score matching, based on sex, age, race/ethnicity, income, education, and smoking status. Fisher's exact test for categorical variables and unpaired t-test for continuous variables were used for comparisons. Univariate and multivariate logistic regression models were built to calculate the odds ratio (OR) and adjusted odds ratio (aOR) of skin cancer in individuals with pruritus. Statistical significance was set at P < 0.05 with 95% confidence intervals (CI) using Wald-based intervals.

Results:

Of the 21, 489 patients identified with chronic pruritus (mean age 61.0 years), majority were female (71.9%), White (49.0%), earned more than \$50,000 annually (28.5%), and were college educated (39.2%). Our findings demonstrate that pruritus is significantly associated with an increased likelihood of all three skin cancer types: BCC, SCC, and melanoma. Compared to matched controls, individuals with pruritus had more than twice the odds of being diagnosed with BCC (aOR: 2.18; 95% CI: 2.04-2.32; p < 0.001) and SCC (aOR: 2.22; 95% CI: 2.02-2.45; p < 0.001). The association, while present, was slightly lower for melanoma (aOR: 1.73; 95% CI: 1.52-1.97; p < 0.001).

Conclusion:

Clinically, our findings emphasize evaluation of pruritus as a dermatologically important early indicator of malignancy. Dermatologists and primary care providers alike should be encouraged to consider the incorporation of validated pruritus assessment tools, such as the Visual Analog Scale (VAS) or ItchyQoL questionnaire, into their

routine skin examinations. Our findings have reinforced the association between pruritus and cutaneous malignancies, particularly BCC and SCC. While pruritus is a common complaint and may yield broad differential, as persistent and unexplained benign etiologies occur, the presence should not be overlooked. Integration of symptoms assessments into cancer screening strategies may aid in the early detection of skin cancer and ultimately, improve patient outcomes.

Chronic Pruritus in General Practice: A Survey of Clinical Approaches Among Moroccan Physicians

lalla safia echarif^{1, 2}, layla bendaoud^{1, 2}, meryem aboudourib^{1, 2}, ouafa hocar^{1, 2}, said amal^{1, 2}

¹CENTRE HOSPITALO-UNIVERSITAIRE MOHAMMED VI MARRAKECH, Department of Dermatology - Venereology, , Marrakech, Morocco

²Faculty of Medicine and Pharmacy in Marrakech, Biosciences and Health Laboratory, Marrakech, Morocco

Introduction & Objectives:

Pruritus is a common complaint in general practice and can be challenging to diagnose due to its multiple potential causes. This survey explores how general practitioners in Morocco approach the evaluation and treatment of chronic pruritus, focusing on clinical practices and barriers to effective care.

Materials & Methods:

This was an observational, descriptive, cross-sectional study conducted over a one-month period. A structured, 35-item online questionnaire was developed and distributed via digital platforms (social media, email) to general practitioners across Morocco. Participation was voluntary and anonymous. Data collected included physician demographics, patient profiles, clinical assessment methods, paraclinical tests ordered, treatment modalities used, and perceived obstacles to effective care.

Results:

A total of 50 physicians participated in the study. The majority were female (70%), with nearly half (46%) under the age of 30 and 56% having less than five years of clinical experience. Patients presenting with chronic pruritus were most commonly aged between 31 and 50 years (52%), with a slight predominance of female patients (54%).

In terms of clinical evaluation, all physicians routinely collected allergy history (100%), followed by dermatological history (92%). However, only 64% systematically assessed for psychological factors. Generalized pruritus was reported in 52% of cases. In 88% of patients, pruritus was associated with cutaneous signs, the most common being urticarial lesions (42.7%). Regarding diagnostic investigations, 38% of physicians indicated they systematically requested biological tests, primarily liver function tests and complete blood counts, which accounted for 95.7% of all laboratory tests ordered.

The most frequently prescribed treatments included antihistamines (92%), emollients (46%), and empirical treatment for scabies (56%). Only 30% of patients were reported to fully adhere to prescribed therapy, with financial constraints identified as the main barrier by 88.4% of physicians. In cases of initial treatment failure, 56% of physicians referred patients to specialists, predominantly hospital-based dermatologists.

Conclusion:

Chronic pruritus is a common and clinically challenging condition in general practice in Morocco. This study reveals significant disparities in diagnostic and therapeutic approaches among general practitioners. Improving continuing medical education, developing practical local guidelines, and addressing socioeconomic barriers are essential steps toward optimizing the management of chronic pruritus in primary care.

Comparing Treatment Satisfaction With Psoriasis Therapies and the Relationship with Disease Severity and Quality of Life

Darshana Seeburruth*¹, Maria Herrera², Philip Doiron^{2, 3}, Cheryl Rosen^{2, 3}

- ¹University of Toronto, Temerty Faculty of Medicine, Toronto, Canada
- ²Toronto Western Hospital, Division of Dermatology, Toronto, Canada
- ³University of Toronto, Division of Dermatology, Toronto, Canada

Introduction & Objectives:

Psoriasis is a chronic inflammatory skin condition affecting 2–4% of the Western population, imposing significant physical and psychosocial burdens. Although a variety of treatment options—including topical medications, small molecules, disease-modifying antirheumatic drugs (DMARDs) and biologics—are available, the impact of these therapies on patient satisfaction remains incompletely understood. This study aimed to compare treatment satisfaction among patients with psoriasis receiving different therapeutic interventions and to explore how treatment satisfaction relates to disease severity and quality of life.

Materials & Methods:

Between October 2024 and February 2025, patients with psoriasis at a single dermatology clinic were invited to complete the Treatment Satisfaction Questionnaire for Medication (TSQM), a validated tool assessing treatment satisfaction in four domains: effectiveness, side effects, convenience, and global satisfaction. Disease severity was measured using the Psoriasis Area and Severity Index (PASI), and quality of life was assessed with the Dermatology Life Quality Index (DLQI). Kendall's tau correlation explored associations between PASI, DLQI, and TSQM outcomes.

Results:

A total of 48 participants were included in this preliminary analysis, with 24 (50%) identifying as male. The mean age was 57.1 years, and the average duration of psoriasis was 24.3 years. Among treatment groups, biologics (n=28, 58.3%) had the highest perceived effectiveness (81.6) and global satisfaction (83.0), along with high perceived convenience (84.0) and few perceived side effects (93.2). Topical treatments (n=11, 22.9%) had the fewest perceived side effects (93.9) but were rated lower in effectiveness (77.7), convenience (82.3), and global satisfaction (75.9) compared to biologics. Small molecules (n=4, 8.3%) received the lowest scores for effectiveness (65.5) and global satisfaction (72.1) and the highest for perceived side effects (75.0), despite favorable convenience ratings (85.7). DMARDs (Methotrexate; n=5, 10.4%) ranked second for effectiveness (81.0), convenience (85.7), global satisfaction (80.0), and least side effects (93.0). Higher PASI scores were associated with lower perceived treatment effectiveness (τ = -0.308, p=0.008), side effects (τ = -0.298, p=0.019), and global satisfaction (τ = -0.284, p=0.015), but not convenience (p=0.517). DLQI demonstrated stronger negative correlations across all TSQM domains, including convenience (τ = -0.235, p=0.035).

Conclusion:

Our findings reveal marked differences in treatment satisfaction across different psoriasis therapies. Patients receiving biologics reported the highest global satisfaction, followed by those on DMARDs, topical agents, and small molecules. Notably, individuals with more severe disease and greater quality-of-life impairments reported lower satisfaction. These results emphasize the need for treatment approaches that optimize both clinical

outcomes and patient-reported experiences to improve overall satisfaction with psoriasis care.