ACADEMIC MEDICAL JOURNAL

Supplement 3, March 2026

ABSTRACTS FROM THE 2nd SCIENTIFIC CONFERENCE OF THE UNIVERSITY CLINIC FOR DERMATOLOGY IN SKOPJE WITH INTERNATIONAL PARTICIPATION

27-28.03. 2026

DoubleTree by Hilton Skopje

Универзитетска клиника
за дерматологија - Скопје

Dear Colleagues,

We are pleased to present the abstracts from the 2nd Annual Scientific Conference of the University Clinic for Dermatology in Skopje. This supplement includes over 50 peer-reviewed abstracts covering key themes in dermatology. The selection process was rigorous, ensuring that only the highest quality research was included.

The collection serves as a permanent record of the work presented by international attendees.

This supplement increases the visibility, reach, and academic impact of the research presented at our conference.

The motto of this year's conference is COLLABORATION & EDUCATION.

On March 27 and 28, at the DoubleTree by Hilton in Skopje, we cordially invite dermatologists and medical professionals from related fields whose work intersects with clinical dermatology.

This year, our event focuses on pediatric and adolescent dermatology, as well as the dermatological treatment of burn scars.

Editors

Prof. Dr. Julija Zivadinovic, Editor in Chief of AMJ

Prof. Dr. Katerina Damevska, President of the Conference

Dr. Tomche Popovski

INVITED LECTURES ABSTRACTS

EMERGING ROLE OF CANNABIDIOL IN THE TREATMENT OF PRURITUS IN PSORIASIS

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Psoriasis is a chronic, immune-mediated inflammatory dermatosis characterized by erythematous, hyperkeratotic plaques and a substantial symptomatic burden. Among its most prevalent and distressing manifestations is pruritus, which affects a majority of patients and significantly compromises quality of life, sleep integrity, and psychosocial functioning. Despite advances in topical, phototherapeutic, and systemic treatments targeting inflammatory pathways and keratinocyte hyperproliferation, pruritus often remains insufficiently controlled, underscoring the need for adjunctive therapeutic strategies specifically addressing itch pathophysiology. Cannabidiol (CBD), a non-psychoactive phytocannabinoid derived from Cannabis sativa, has gained attention for its anti-inflammatory, immunomodulatory, and neurosensory-modulating properties. Mechanistically, CBD is believed to exert its effects by modulating the endocannabinoid system, transient receptor potential (TRP) channels, peroxisome proliferator-activated receptors (PPARs), and serotonergic signaling pathways, all of which are implicated in the pathogenesis of psoriatic inflammation and pruritus transmission.

Preclinical investigations suggest that CBD may inhibit keratinocyte proliferation, attenuate pro-inflammatory cytokine production, and reduce neurogenic inflammation, thereby targeting both the cutaneous and neural components of psoriatic itch. Emerging clinical and observational evidence indicates that topical CBD formulations may reduce pruritus intensity and improve associated clinical parameters, including erythema and scaling, with a favorable safety and tolerability profile. However, the current body of evidence remains limited by small sample sizes, heterogeneity in formulation and dosing, and a paucity of randomized controlled trials. This review synthesizes current knowledge regarding the pathophysiology of pruritus in psoriasis and evaluates the mechanistic rationale and clinical evidence supporting cannabidiol as a therapeutic modality.

Further well-designed, large-scale studies are warranted to clarify optimal formulations, dosing strategies, long-term safety, and comparative efficacy within established treatment paradigms.

ALLERGY TESTING FOR NUTRITIONAL ALLERGENS IN CHILDREN WITH ATOPIC DERMATITIS: A CROSS-SECTIONAL STUDY

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Background: Atopic dermatitis (AD) is a chronic inflammatory skin disease in children and is frequently associated with food allergies. Sensitization to nutritional allergens may contribute to disease persistence and increased severity, particularly in early childhood.

Objective: To evaluate the prevalence of sensitization to nutritional allergens and its association with total IgE levels in children with atopic dermatitis.

Methods: This cross-sectional study included 54 children under 18 years of age diagnosed with AD and evaluated at the University Clinic for Dermatology. All participants underwent allergy testing for common nutritional allergens using skin prick testing and in vitro specific IgE assays. Total serum IgE levels were measured in all patients. Data were analyzed using descriptive statistics and Fisher's exact test.

Results: Nutritional allergen sensitization was detected in 25 children (46.3%), while 29 children (53.7%) showed no sensitization. Elevated total IgE levels were significantly more common among sensitized patients. A statistically significant association was found between elevated total IgE and nutritional allergen sensitization (Fisher's exact test, $p = 0.0025$). Children with elevated IgE levels had a higher likelihood of being sensitized to one or more nutritional allergens (odds ratio = 6.55). The most frequently identified allergens included cow's milk, egg, wheat, and nuts. Sensitization was more prevalent in younger children and in those with moderate to severe atopic dermatitis.

Conclusion: Nearly half of children with AD were sensitized to nutritional allergens. Elevated total IgE levels were strongly associated with allergen sensitization. Combined use of skin prick and in vitro testing provides valuable diagnostic information; however, results should be interpreted in correlation with clinical findings to avoid unnecessary dietary restrictions. Targeted allergy testing may support individualized management in pediatric AD.

ALLERGOLOGICAL TESTING OF VACCINES IN CHILDREN: A DERMATOLOGICAL PROTOCOL FOR SAFE IMMUNIZATION

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Introduction: Allergic reactions after vaccination in children are rare, but fear of their recurrence frequently leads to delays or complete interruption of the regular immunization schedule. Although the number of reported possible allergic reactions following vaccination is relatively high, confirmed IgE-mediated allergic reactions are extremely rare. According to relevant international guidelines, allergological evaluation and testing are primarily indicated in children with immediate reactions after a previous vaccine, such as urticaria, angioedema, bronchospasm, or anaphylaxis, as well as in cases of hypersensitivity to certain vaccinal components (gelatin, yeast, latex, and, for some vaccines, egg). Routine allergological testing in nonspecific or delayed mild skin reactions is not recommended, as most skin manifestations after vaccination do not represent a true allergy but rather nonspecific or temporally coincidental reactions. These facts underscore the need for a structured and professionally guided clinical approach.

Aim: To present a practical dermatological protocol for evaluating suspected vaccine allergy in children and for selective allergological testing aimed at ensuring a rational approach and supporting safe immunization.

Material and methods: A systematic allergological assessment is conducted in a dermatology outpatient clinic for children referred due to a previous reaction to a vaccine or a pronounced fear of reaction. The assessment includes a detailed medical history (time of symptom onset ≤ or >4 hours, type and severity of the reaction, need for emergency therapy, comorbidities such as asthma or atopy, and previous reactions to medications or food) and a clinical risk evaluation. In selected cases, allergological skin testing is performed according to international recommendations, using a skin prick test with an undiluted vaccine and, if the result is negative, an intradermal test with appropriate dilution. The dermatologist gives an expert opinion and recommendation for further management.

Conclusion: A structured dermatological protocol based on guidelines provides clear differentiation between true allergy and non-allergic reactions after vaccination, rational selection of testing, and a reduction in unjustified vaccine avoidance, thereby supporting safe and continuous immunization in children.

RITUXIMAB AS ALTERNATIVE TO LONG-TERM SYSTEMIC CORTICOSTEROIDS IN TREATMENT OF PEMPHIGUS: A SINGLE-CENTER EXPERIENCE

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Introduction: Pemphigus is a group of rare autoimmune blistering disorders affecting the skin and mucous membranes, caused by pathogenic immunoglobulin G (IgG) autoantibodies directed against desmosomal cadherins, particularly desmoglein-1 and desmoglein-3. The introduction of rituximab (RTX), an anti-CD20 monoclonal antibody, has significantly improved treatment outcomes in patients with pemphigus, particularly those refractory to systemic corticosteroids (CS).

Aim: To summarize the clinical outcomes, clinical and serological characteristics, and adverse effects in patients with pemphigus treated with RTX at the University Clinic for Dermatology in Skopje.

Methods: A retrospective analysis of 18 patients diagnosed with pemphigus vulgaris (PV) or pemphigus foliaceus (PF) treated with RTX at the University Clinic for Dermatology in Skopje was performed. Clinical remission, serological parameters, and treatment-related adverse effects were evaluated.

Results: Among the 18 patients, 14 (77.8%) were diagnosed with PV and 4 (22.2%) with PF. Following RTX therapy, 15 patients (83.3%) achieved complete clinical remission. Serological testing for anti-desmoglein 1 and anti-desmoglein 3 antibodies was performed in four patients, of whom three showed negative antibody levels, while one remained weakly positive. RTX was generally well tolerated. One patient experienced laryngospasm during infusion, while no other significant adverse events were observed.

Discussion: RTX represents an effective steroid-sparing therapeutic option for patients with pemphigus. In our single-center experience, RTX demonstrated high efficacy and a favorable safety profile, supporting its role as an alternative to long-term systemic corticosteroid therapy.

DIAGNOSTIC YIELD OF INDIRECT IMMUNOFLUORESCENCE IN PATIENTS WITH SUSPECTED AUTOIMMUNE BULLOUS DERMATOSES: A SINGLE-CENTER EXPERIENCE

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Background: Autoimmune bullous dermatoses comprise a heterogeneous group of rare skin diseases characterized by blister formation caused by autoantibodies directed against structural proteins within desmosomes and hemidesmosomes. Due to their clinical and immunopathological diversity, accurate diagnosis requires an integrated approach combining clinical assessment, histopathology, and immunological testing. Indirect immunofluorescence (IIF) remains a cornerstone serological method in routine diagnostics, valued for its minimal invasiveness, rapid turnaround, and ability to identify target antigens. Our objective was to present our experience with indirect immunofluorescence testing in patients with clinically suspected autoimmune bullous dermatoses.

Materials and Methods: A retrospective analysis was conducted in 63 patients with cutaneous and/or mucosal lesions referred to the Institute of Immunobiology and Human Genetics for indirect immunofluorescence testing. Serum autoantibodies against esophagus substrate, desmoglein 1, desmoglein 3, BP180 (NC16A), and BP230 were evaluated using the EUROIMMUN Dermatology Mosaic 7. Positivity was defined as the presence of any detectable antibody titer. Descriptive statistical analyses of demographic and laboratory data were performed.

Results: Seropositivity was observed in 43 of 63 patients (68.25%). Antibodies against esophagus substrate and/or desmoglein 1/desmoglein 3 were detected in 27 patients, consistent with pemphigus spectrum disorders. In contrast, 16 patients demonstrated antibodies against BP180, indicating bullous pemphigoid. No reactivity against BP230 was detected.

Conclusion: Indirect immunofluorescence demonstrates a high diagnostic yield in patients with suspected autoimmune bullous dermatoses. It enables accurate antigen identification, supports disease subtype classification, and remains a valuable component of the integrated diagnostic workflow in real-world tertiary care practice.

COW'S MILK PROTEIN ALLERGY IN INFANTS AND CHILDREN

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Introduction: Cow's milk protein allergy in childhood is an adverse effect on the body, resulting from the activation of a specific immune response after exposure to cow's milk proteins. Cow's milk (CM) hypersensitivity reactions involve immunological mechanisms that can be divided into 3 categories: IgE-mediated, non-IgE-mediated, and mixed. Clinically, it manifests with a diverse spectrum of symptoms of variable intensity. Immediate "early" reactions are probably IgE-mediated and last up to 2 hours after allergen ingestion. "Delayed" reactions manifest up to 48 hours or 7 days, without IgE-mediated mechanisms.

Objective: The aim of this study was to present a diagnostic and therapeutic algorithm for cow's milk allergy in infants and children. The diagnosis should be confirmed or excluded by diagnostic elimination diet and allergen provocation. Diagnostic elimination of cow's milk proteins from the diet of the child or mother in case of breastfeeding should be initiated for a limited period of time. It is recommended that mothers continue breastfeeding and avoid milk and dairy products in their diet for 3 to 6 days; if delayed reactions are suspected, the period is extended to 14 days. Infants with severe symptoms should be fed a therapeutic formula for a period of several days to a maximum of 2 weeks. A diagnostic challenge are newborns/infants with extremely severe symptoms, in whom amino acid formulas may be considered as the first choice of nutrition. In atopic children at high risk and in case of suspicion of multiple nutritional allergens, exclusive feeding with amino acid formulas is recommended before performing an oral provocation test.

Conclusion: It is crucial to always carry out the full diagnostic protocol in all children suspected of having a cow's milk protein allergy and to initiate therapy and appropriate nutrition in a timely manner.

CONGENITAL SYPHILIS – A CASE REPORT

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Background: Congenital syphilis is an infectious disease of the fetus that develops when a mother infected with the spirochaete bacterium Treponema pallidum transmits the pathogen to the fetus during pregnancy or at childbirth. Approximately 60-90% of infants born to mothers infected with Treponema pallidum develop congenital syphilis, whereas 2/3 of infected newborns are asymptomatic at birth. Untreated maternal syphilis carries an almost 100% risk of fetal involvement, leading to fetal death or neonatal mortality in 40% of cases. Owing to maternal syphilis screening in early pregnancy and adequate antenatal treatment, congenital syphilis has become an extremely rare disease in developed countries.

Case presentation: A 3-day-old male neonate was referred from the University Clinic for Gynecology and Obstetrics with a referral diagnosis of lues congenita and high serological titers - TRNA (1:2560) and RPR (>1:64), as well as the presence of Treponema pallidum DNA in a skin swab. The mother was a sex worker with syphilis, who had previously been treated with penicillin agents. The newborn was delivered spontaneously at 38 g.w., with a birth weight of 2470 gr, length of 50 cm, and an APGAR score of 8/8. On admission, the neonate was afebrile, hypotrophic, tachycardic, tachypneic, with characteristic skin rash – maculopapular, nummular exanthema on the palms and soles, with erythema-livid discoloration (copper-colored), and desquamation in some areas. A dark discoloration of the left foot in the plantar region was observed. A lumbar puncture was performed, and PCR confirmed the presence of Treponema pallidum DNA in the cerebrospinal fluid. Chemical analysis of the cerebrospinal fluid showed: glucose 1.84 mmol/L, lactate 1.7 mg/dl, protein 664 mg/L. Due to the unavailability of benzylpenicillin (penicillin G), the first-line drug of choice, parenteral antibiotic therapy was initiated with high doses of a third-generation cephalosporin (ceftriaxone 75 mg/kg b.w. every 12 hours), according to antibiotic therapy protocols. The neonate received this therapy for 14 days, after which a control lumbar puncture was performed, showing a negative PCR result for Treponema pallidum in the cerebrospinal fluid. Additionally, serological tests for TRNA and RPR were negative. During hospitalization, the neonate was continuously monitored; they were afebrile, with stable vital signs, gradual improvement in general condition, and resolution of skin changes. The infant is followed up in the Department of Neonatology, with satisfactory growth and development and normal skin findings. Eye and Ear screening has been recommended.

Conclusion: This case report underscores the importance of introducing maternal screening for syphilis in early pregnancy and adequate antenatal treatment. This is essential for disease prevention and should be considered a standard measure to protect maternal health and the newborn's life. Timely and specific treatment helps prevent complications and sequelae associated with the clinical presentation of late congenital syphilis.

TOP FIVE GENODERMATOSES IN DERMATOLOGY PRACTICE

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Genetic skin disorders, or genodermatoses, encompass a diverse group of conditions caused by inherited mutations affecting skin structure and function. In pediatric populations, early recognition and diagnosis are critical for management, prognosis, and genetic counseling. This lecture will explore the five most common genetic skin disorders in children: ichthyosis vulgaris, atopic dermatitis with filaggrin mutations, epidermolysis bullosa, xeroderma pigmentosum, and neurofibromatosis type 1. Each condition will be examined in terms of genetic etiology, clinical presentation, diagnostic approaches, and current management strategies.

Ichthyosis vulgaris, often resulting from filaggrin gene mutations, presents with dry, scaly skin and is frequently associated with atopic conditions.

Epidermolysis bullosa involves mutations in keratin or collagen genes, leading to skin fragility and blistering.

Xeroderma pigmentosum is characterized by defective DNA repair mechanisms, leading to extreme sensitivity to UV light and an increased risk of cancer.

Neurofibromatosis type 1, caused by mutations in the NF1 gene, manifests with café-au-lait spots, neurofibromas, and other systemic features.

Understanding the genetic and molecular basis of these disorders enhances clinical management and paves the way for novel therapies, including gene-based treatments. This lecture aims to equip clinicians and researchers with essential insights into the diagnosis and care of children with these challenging yet increasingly manageable conditions.

COLLODION BABY PHENOTYPE – A NEONATOLOGIST'S PERSPECTIVE

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The collodion phenotype is a rare neonatal presentation of disorders of cornification, with an incidence of approximately 1 in 50,000–100,000 live births. It represents the initial manifestation of several autosomal recessive congenital ichthyoses, including lamellar ichthyosis, nonbullous congenital ichthyosiform erythroderma, and harlequin ichthyosis. Although major advances in molecular genetics have clarified the underlying pathogenesis, the neonatal management of collodion babies remains clinically challenging.

Complications occur in nearly half of affected neonates, with early mortality reported in approximately 11%. Despite the absence of uniformly established diagnostic guidelines, early assessment should follow a structured clinical approach based on key historical and clinical features. As initial management strategies do not differ between specific ichthyosis subtypes, diagnosis in the neonatal period is primarily clinical, with phenotypic evolution over time.

Although most collodion babies are born at term, they require intensive neonatal care similar to preterm infants due to risks of dehydration, hypothermia, skin infection, and sepsis. Early recognition, meticulous supportive care, and a multidisciplinary approach are essential for improving outcomes.

MASTOCYTOSIS IN CHILDHOOD: WHEN IS SKIN BIOPSY NECESSARY?

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Mastocytosis in childhood is a rare disease resulting from the proliferative and abnormal accumulation of clonal mast cells in multiple organs, including the skin.

Cutaneous mastocytosis encompass several clinical forms: the maculopapular form (urticaria pigmentosa), diffuse cutaneous mastocytosis and solitary mastocytoma. Adult patients not frequently have associated systemic mastocytosis, whereas in children this disease is most often limited to the skin with a high rate of spontaneous remission.

Symptoms result from the release of inflammatory mediators from mastocytes and range from pruritus and flushing to gastrointestinal and other systemic manifestations.

The diagnosis is most often clinical and is established based on characteristic lesions, their distribution and a positive Darier's sign. Skin biopsy and histopathological confirmation are necessary in cases of atypical or clinically unclear presentations.

Histopathological changes consist of an accumulation of mastocytes in the papillary dermis, usually arranged perivascularly and around skin adnexa, and they can also involve reticular dermis and subcutaneous adipose tissue. On routine hematoxylin-eosin staining, the mast cell infiltrate is subtle and nonspecific, which makes the diagnosis more difficult. Therefore, specific histochemical stains are necessary, such as Giemsa and toluidine blue, are necessary for reliable identification of mastocytes.

Dermatoses in childhood encompass a wide spectrum of conditions with often overlapping clinical and morphological characteristics, and hence, certain diseases can be overlooked. In this context, mastocytosis represents a good model for illustration of the importance of clinicopathological correlation. This review emphasizes the need for careful interpretation of histological findings and their concordance with the clinical picture, without excessive reliance on an isolated histopathological finding.

MANAGEMENT OF PEDIATRIC PSORIASIS

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Psoriasis is a chronic, systemic, inflammatory, immune-mediated disease that primarily affects the skin and is characterized by abnormal epidermal hyperproliferation. There are many trigger factors involved (stress, infections, medications, trauma) that can induce the disease in a predisposed population. Adults and children of all ages can be affected by this disease. The incidence of pediatric psoriasis increases with age, and the prevalence of childhood psoriasis has been reported to be around 0.3%–1.24% in various studies. The disease can appear at any age, most commonly at 9-10 years, and has a prolonged course with exacerbation periods that can last from a few weeks to 1.5 years. Earlier onset is associated with severe forms of psoriasis. Exacerbations are more likely to occur in autumn and winter.

The pathogenesis of psoriasis is based on chronic inflammation, increased keratinocyte proliferation, and dysfunctional differentiation. The pathogenesis of psoriasis can be divided into an initiation phase, possibly triggered by trauma, infections, or drugs, and a chronic phase of long-term clinical progression. The main trigger factors in children include stress and infections, especially streptococcal infections.

The most common type of psoriasis in children is chronic plaque psoriasis (75%), followed by guttate psoriasis. In many cases, infants have persistent diaper rash that remains despite many treatments. Older children may have an asymptomatic scaly rash or dandruff. Adolescents have the same clinical features as adults. Some children may present the Koebner phenomenon.

Psoriasis therapy varies based on patient age, psoriasis type, affected sites, and disease extent. Topical agents such as emollients, vitamin D analogs, and corticosteroids should be the first-line treatment for children with mild to moderate psoriasis. Second-line topical treatments include retinoids, tars, anthralin, and keratolytics. Phototherapy (NB-UVB, PUVA) is an alternative therapy for children. Psoralen is avoided in children under 12 years of age. Systemic therapy is required in severe disease. Methotrexate is the most commonly used systemic medication for psoriasis in children and requires folic acid supplementation. Biologic therapy is increasingly used in pediatric patients with psoriasis. Several biologics were used to treat pediatric psoriasis, and their efficacy is encouraging.

ANALYSIS OF PATIENTS AFTER THE KOCHANI FIRE: FROM ACUTE RESPONSE TO LONG-TERM OUTCOMES

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Introduction: In March 2025, a major fire in a nightclub caused a mass burn casualty incident involving more than 200 individuals. This placed significant pressure on the national health system. This study presents the acute surgical response and early clinical outcomes.

Methods: All patients were triaged according to ATLS-based burn protocols. Patients' age ranged from 15 to 50 years, with a mean age of 24.7 years, of whom 114 were male and 65 were female patients. Emergency priorities included securing the airway when inhalation injury was suspected, followed by oxygen therapy, early fiberoptic assessment, and intubation when indicated. Resuscitation was performed according to the Parkland formula, with administration of analgesia, gastroprotective therapy, and antitetanus prophylaxis. Local burn treatment included sterile wound management, assessment of TBSA, edema control, early escharotomy, surgical and enzymatic debridement, followed by psychological support.

Results: The total number of hospitalized patients was 193, of whom 126 had burns, 85 had inhalation injury, and 40 required mechanical ventilation. Burns most commonly affected functionally and respiratory critical regions: the head/face in 96 patients, the neck in 30 patients, and the upper extremities in 78 patients, predominantly in a multiregional combination. Burns of the trunk (14) and lower extremities (1) were less frequent. Inhalation injury was significantly associated with early intubation and admission to intensive care. A higher TBSA percentage was positively correlated with transfer to ICU. A total of 115 patients were transported abroad within the first 48 hours through the EU Civil Protection Mechanism. Despite the extreme pressure on the system, mortality was low (2.07%). After 7 months, all patients are receiving outpatient care at home and undergoing physical therapy, scar treatment, and psychological support. More than 30 patients will require additional surgical treatment.

Conclusion: In mass casualty incidents, surgical leadership and consistent protocol implementation can significantly contribute to a low mortality rate. A multidisciplinary approach is of key priority and yields better outcomes through proactive burn management and airway control, thereby preventing complications. International cooperation and support are strongly recommended and highly valued in achieving better outcomes.

THE IMPACT OF COLLECTIVE TRAUMA ON MENTAL HEALTH

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Introduction: Collective trauma refers to the psychological effects of a devastating event that affects an entire community. Adolescents and young adults are especially vulnerable, with an elevated risk of developing post-traumatic stress disorder (PTSD) due to brain and coping mechanisms maturation. The tragic nightclub fire in Kochani, North Macedonia in March 2025, which resulted in 62 fatalities and over 170 injured - predominantly adolescents and young adults - is a severe collective trauma. PTSD is marked by intrusive recollections, hyperarousal, avoidance, affective dysregulation, and impaired functioning. Research suggests that adaptive coping strategies (e.g., cognitive reframing, emotional expression, acceptance) can mitigate trauma-related symptoms, while avoidant or blaming styles are associated with more severe psychological sequelae.

Aim: To assess the psychological impact of a collective traumatic event in patients who were survivors with major burns and explore the association between individual coping styles and the early manifestation of PTSD symptoms. Longitudinal monitoring of symptom resolution and functional recovery.

Material and Methods: In this study, we included 80 patients with major burns who were treated at the University Clinic for Dermatology. Initial assessment at the University Clinic for Psychiatry included: a clinically-guided psychiatric interview, a structured sociodemographic and risk-factors questionnaire, DIAS scale for anxiety and depression, PTSD Checklist for DSM-5 (PCL-5), and Brief COPE Questionnaire to evaluate coping styles. Follow-up assessments are scheduled at 24 months post-event with the WHO Disability Assessment Schedule (WHODAS 2.0) to assess functional impairment.

Results: Patients showed differences in presenting anxiety, depression, or PTSD symptoms, which correlated with age, gender, risk factors, and functional disability as a result of traumatic burns.

Conclusion: This study illustrates the severe psychological impact of collective trauma on young individuals. As supported by literature, early interventions, including psychiatric evaluation, coping assessment, and combined pharmacological and psychotherapeutic support, are essential to alleviate long-term adverse outcomes. Evaluating the coping profiles helps identify individuals at risk and tailor personalized interventions. Longitudinal monitoring will allow assessment of symptom evolution and functional recovery, contributing to the development of effective trauma-informed care pathways.

DERMATOLOGICAL ASSESSMENT IN A COHORT OF PATIENTS WITH POST-BURN SCARS

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Introduction: Post-burn scars remain a complex long-term clinical challenge, characterized by structural variability and functional implications. Although often considered stable over time, significant differences in scar morphology persist among patients. This study aimed to evaluate the clinical and structural characteristics of post-burn scars in a cohort of fire injury survivors.

Materials and Methods: Dermatological assessment was conducted within a multidisciplinary working group established by the Macedonian Ministry of Health following the Kochani fire incident. Examinations were performed between September and November 2025 at the General Hospital in Kochani. Demographic data, number and anatomical distribution of scars, and Total Body Surface Area (TBSA) were recorded. Scar morphology was assessed using the Modified Vancouver Scar Scale (mVSS), evaluating vascularity, pigmentation, pliability, and scar height. Non-parametric statistical methods were applied for comparative and correlation analyses.

Results: A total of 83 patients were evaluated; 66 patients (29 females and 46 males) with post-burn scars underwent detailed dermatological evaluation. The cohort demonstrated wide interindividual variability in both scar number and morphological severity. Upper and lower extremities were the most commonly affected sites, while visible regions such as the face and neck were involved in a considerable proportion of patients. Morphological assessment revealed heterogeneous scar characteristics across the cohort. Group comparisons did not reveal consistent differences across basic demographic parameters or burn extent. However, certain structural patterns suggested associations warranting further clinical attention.

Conclusion: Post-burn scars exhibit notable morphological diversity that cannot be explained solely by burn size. Structured dermatological evaluation provides essential insight into long-term scar behavior and supports individualized management strategies.

DERMATOLOGY LIFE QUALITY INDEX (DLQI) SCORES IN BURN VICTIMS: EXPLORATORY CROSS-SECTIONAL STUDY

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Introduction: The Dermatology Life Quality Index (DLQI), developed in 1994, is a widely accepted and validated instrument for assessing the impact of dermatological diseases on patients' daily functioning, emotional well-being, and social interaction. The questionnaire consists of 10 standardized items with a total score ranging from 0 to 30 and is used in more than 50 dermatological conditions, including psoriasis and vitiligo, as a reference tool for clinical evaluation and monitoring therapeutic interventions. In this observational, cross-sectional study, DLQI results for patients with permanent burn scars were compared with descriptive clinical data from the same population and with results from relevant studies on psoriasis and vitiligo.

Patients and Methods: This observational, cross-sectional study included 66 patients (47 men and 19 women) aged 16 to 49 years, treated at the University Clinic for Dermatology in Skopje. For each patient, data were collected regarding the total number of scars, the total body surface area (TBSA) affected by burns, and the total Vancouver Scar Scale score. Quality of life was assessed using the DLQI, which comprises 10 standardized items with a total score ranging from 0 to 30, yielding a total DLQI score (0-30). The results were categorized into five levels of impact on quality of life (0–1, 2–5, 6–10, 11–20, 21–30). DLQI was correlated with clinical parameters to allow an integrated evaluation of the clinical and psychosocial burden.

Results: Of the total 66 patients, 11 (16.7%) had a DLQI score of 0–1, 16 (24.2%) had 2–5, 21 (31.8%) 6–10, 17 (25.8%) had 11–20 and 1 (1.5%) patient had 21–30. Thirty-nine patients (59.1%) had a DLQI score ≥ 6, indicating moderate-to-severe impairment in quality of life. The total DLQI score was positively correlated with clinical indicators. In addition, responses to all questions were analyzed regarding DLQI to provide more detailed insight into the psycho-social impact.

Discussion: Burn scars are associated with a significant impairment in dermatology-related quality of life, with larger affected areas and greater burn severity linked to a higher psychosocial burden. These findings confirm the clinical value of DLQI as a sensitive and validated instrument in this patient population.

CONTACT URTICARIA FROM HYDROCOLLOID DRESSINGS IN A BURN PATIENT

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Introduction: Contact urticaria is an acute hypersensitivity reaction that occurs within minutes after skin or mucosal exposure to an allergen, with manifestations ranging from localized lesions to generalized urticaria or, in rare cases, anaphylaxis. The condition can be immunologic (IgE-mediated) or non-immunologic. In damaged or healing skin, antimicrobial agents used in wound care are generally well tolerated, although rare immediate hypersensitivity reactions and potential cross-reactivity with structurally related compounds have been reported.

Case Presentation: We present a 22-year-old male patient with third-degree burns sustained in a fire in Kochani on March 16, 2025. During a three-month treatment period in Athens, the patient successfully underwent integration of skin grafts on the extremities, whereas grafts in the frontotemporal and cervical regions were repeatedly rejected. Following isolation of Pseudomonas aeruginosa in July 2025, polyhexamethylene biguanide (PHMB) dressings were applied therapeutically. Subsequently, the patient experienced three episodes of intense itching, burning, and a generalized urticarial rash within minutes of dressing application. During all episodes, the patient was receiving sedoanalgesia with metamizole sodium, paracetamol, and fentanyl. Standard allergy testing for the suspected medications, as well as patch tests with the European baseline series and the hydrocolloid dressings used, were negative. However, a prick-to-prick test with an extract from the PHMB dressing was positive, confirming an immediate IgE-mediated hypersensitivity reaction to the dressing.

Discussion: Based on clinical presentation and diagnostic testing, IgE-mediated contact urticaria (type I) was diagnosed, with polyhexamethylene biguanide (PHMB) as the suspected allergen. The reaction may reflect cross-reactivity with other biguanides, particularly chlorhexidine, following recent exposure to Hexatulle dressings immediately prior to PHMB application. Clinical improvement was observed after discontinuing PHMB dressings. This case highlights the importance of early recognition of rare allergic reactions and careful consideration of potential cross-reactivity in patients with damaged or healing skin.

SCAR MANAGEMENT IN BURN INJURIES: CURRENT TREATMENT OPTIONS

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Burn scars pose a significant medical and psychosocial burden, with long-term consequences on quality of life. Burn injuries may result in hypertrophic and keloid scar formation, leading to functional impairment and aesthetic dissatisfaction. Burn scar management is a complex, multidisciplinary process. Its goal is to improve cosmetic results, restore functional mobility, and support mental health. Current data highlight the importance of initiating treatment in the acute phase, including optimal wound care, infection control, and strategies that promote appropriate healing.

Non-surgical therapies for hypertrophic and keloid scars include silicone-based products, emollients, compression therapy, botulinum toxin injections, and intralesional corticosteroids. Emollients and silicone gels help restore skin barrier function, and corticosteroids help reduce inflammation. Surgical procedures in scar management include direct wound closure, tissue excision, skin grafting, and flap procedures. These treatments are reserved for more severe cases in which scars cause functional impairment and aesthetic disfigurement.

Microneedling, platelet-rich plasma (PRP), laser therapy, and physical rehabilitation are additional treatment options that have shown promising results, although with varying degrees of effectiveness. Laser therapy, particularly pulsed dye (PDL) and fractional CO_2 lasers, has been effective in improving pigmentation, vascularity, pliability, scar height, and relief. It also helps in reducing pain and pruritus, with few side effects. New developments in regenerative medicine offer opportunities for more precise and personalized treatments, including stem cells therapies, nanomedicine, and 3D bioprinting.

Existing data support an individualized, multidisciplinary approach. However, further randomized controlled trials are required to standardize treatment and evaluate long-term efficacy.

TISSUE EXPANDERS AS A RECONSTRUCTIVE TOOL FOR THE TREATMENT OF POST-BURN SCARS

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The introduction of tissue expanders into reconstructive surgery in the 1980s by Radovan was, at that time, a revolutionary idea for treatment of many conditions requiring reconstruction of full-thickness soft-tissue defects of various etiologies. They are particularly indicated in the treatment of post-burn scars that involve functional parts of the body or cause disfigurement. They have been successfully used at our clinic and, as a technique, have been present since the 1990s.

The emergence of reconstructive microsurgical techniques has reduced their importance; however, they are still the method of choice for burn scars involving a large body surface area where healthy tissue is lacking as a donor site.

Their principal drawback is that two surgical procedures are required: one for the placement of the expander and another one for its explantation with definitive reconstruction. The interim period, which requires frequent follow-up visits for their inflation, is also uncomfortable for patients. Their technical simplicity and good outcomes continue to keep them relevant in plastic reconstructive surgery.

We present the concept of using tissue expanders for the surgical treatment of post-burn scars and our experience with their use for this indication.

ITCHING AND PAIN OF POST-BURN SCARS ONE YEAR AFTER BURN INJURY: A CROSS-SECTIONAL STUDY

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Background: Although post-burn scars are generally considered structurally stable one year after injury, many patients continue to experience persistent sensory symptoms. While post-burn pain has been extensively studied, chronic pruritus remains poorly studied and often underestimated in long-term follow-up. This study aimed to assess the intensity of itching and pain one year after burn injury and to explore their relationship with objective scar characteristics.

Methods: A hospital-based cross-sectional study including 66 patients evaluated 12 months after burn injury was conducted at the University Clinic for Dermatology in Skopje. Symptom intensity (pain, pruritus, and scar tightness) was assessed using a 10-point Visual Analogue Scale (VAS). Scar severity was evaluated using the Vancouver Scar Scale (VSS), and total body surface area (TBSA) was recorded. Correlation analyses were performed to examine the relationship between structural scar parameters and sensory symptoms.

Results: At one year post-injury, sensory symptoms remained highly prevalent. Scar tightness was the most prominent complaint, followed by pruritus and pain. Pruritus intensity exceeded pain intensity and was frequently reported at clinically relevant levels. Symptom severity demonstrated a strong association with scar structural characteristics, whereas burn surface extent showed weaker correlations.

Conclusion: Structural scar stabilization does not equate to symptomatic resolution. Pruritus represents a significant long-term burden in burn survivors and appears closely linked to scar quality rather than burn size. These findings emphasize the need for continued dermatological monitoring beyond the acute recovery phase.

HYPERPIGMENTATION AND HYPOPIGMENTATION IN BURN SCARS: A PATHOPHYSIOLOGY-DRIVEN THERAPEUTIC FRAMEWORK

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Background: Pigmentary alterations in burn scars are traditionally regarded as aesthetic sequelae. However, emerging evidence suggests that pigment phenotype may reflect biologically distinct remodeling pathways driven by melanocyte integrity, persistent inflammation, and vascular dysregulation.

Objective: To evaluate the structural distribution of pigment phenotypes in a homogeneous burn cohort and determine whether pigment phenotype represents an independent remodeling dimension beyond burn extent and global scar severity.

Methods: Sixty-six survivors of a single fire incident (March 2025) were prospectively evaluated. A total of 432 scar lesions were documented and classified as normal, hypopigmented, mixed, or hyperpigmented. Because multiple lesions were recorded per patient, analyses accounted for within-patient clustering. A generalized estimating equations (GEE) logistic regression model (binomial family, exchangeable correlation structure, robust standard errors) was fitted with patient ID as the clustering variable. The primary outcome was a vascular-active pigment phenotype (mixed/hyperpigmented) versus normal/hypopigmented. Predictors included age, sex, total body surface area (TBSA), and mean Vancouver Scar Scale (VSS) score. As part of early clinical management, patients underwent vascular-targeted pulsed-dye laser (PDL) therapy.

Results: Mixed phenotype predominated (52.1%), followed by hypopigmented (29.6%), hyperpigmented (11.8%), and normal patterns (6.5%). In clustered GEE analysis, pigment phenotype was not independently associated with TBSA, global scar severity (mean VSS), age, or sex (all $p > 0.05$). Early descriptive assessment suggested preferential responsiveness of mixed and hyperpigmented phenotypes to vascular-targeted intervention.

Conclusion: The structural independence of pigment phenotype supports a shift from uniform laser protocols toward phenotype-stratified therapeutic algorithms. A pathophysiology-driven approach enables mechanism-aligned intervention and advances precision-based burn scar management.

PULSED DYE LASER IN BURN SCARS: METHODOLOGY AND PRELIMINARY RESULTS

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Background: After the club fire in Kochani, a group of predominantly young burn survivors entered follow-up care with clinically active post-burn scars, characterized by persistent erythema and hypertrophy with functional and psychosocial impact. Given the vascular component of early scar activity, we introduced 585 nm pulsed dye laser (PDL) using a standardized protocol to ensure consistent delivery and systematic outcome tracking. PDL targets scar microvasculature and is widely used to reduce erythema and improve pliability.

Methods: A standardized 585 nm pulsed dye laser (PDL; Candela VBeam) protocol was implemented using a stepwise, parameter-adjusted approach. Scars were initially treated with a 7-mm spot size at 5–6 J/cm² and 450 µs–1 ms pulse duration at 4-week intervals for 1–2 sessions, primarily targeting scar erythema and improved softness/pliability. Treatment then transitioned to a 10-mm spot size at 6–8 J/cm² and 1–1.5 ms pulse duration at 4–6-week intervals, with 4–6 sessions planned, targeting residual vascularity and scar height. At each visit, test pulses were performed and treatment was delivered with dynamic epidermal cooling, ~10% spot overlap, and endpoint-guided dosing (moderate purpura when appropriate). Standardized clinical photography and adverse-event monitoring were conducted at every session. Post-treatment care included strict photoprotection (SPF ≥50). Outcomes were prospectively recorded using the Vancouver Scar Scale (VSS), alongside symptom tracking and quality-of-life measures when available.

Preliminary results (baseline cohort): The registry currently includes 66 patients (47 male, 19 female), median age 24 years (IQR 21–26.8; range 16–49). Median TBSA was 8.25% (IQR 3.31–16.75; range 0.5–32.5) and median number of scars 6 (IQR 4–9; range 1–16). Baseline median VSS was 6.0 (IQR 5.0–7.5; range 2.0–10.5). Lesion grading showed median softness 2/5, height 1/3, and erythema 2/3. Most commonly affected regions were hands (89.4%), upper extremities (84.8%), face (56.1%), and neck (40.9%).

Conclusion: These baseline data characterize patients entering a standardized 585 nm PDL program after the Kochani incident. Prospective follow-up will quantify clinical and patient-reported benefits across sequential PDL sessions.

POSTER SESION ABSTRACTS

APLASIA CUTIS CONGENITA AS AN ISOLATED MANIFESTATION OF CONGENITAL VARICELLA SYNDROME

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Introduction: Aplasia cutis congenita (ACC) is a rare congenital defect characterized by the absence of the epidermis, dermis, and sometimes subcutaneous tissue. It arises from multifactorial disruptions in fetal skin development. Lesions can occur anywhere, but 70–90% involve the scalp, particularly the vertex. ACC is classified into subtypes, some linked to genetic syndromes. While most lesions heal spontaneously, deep, midline, or large defects warrant evaluation for potential anomalies of the skull, brain, or major vessels. Pathogenesis includes genetic factors, vascular compromise, teratogens, amniotic bands, and intrauterine infections. Maternal varicella infection between 8–20 weeks of gestation can result in congenital varicella syndrome (CVS; 1–2% of affected pregnancies), typically presenting with limb hypoplasia, dermatomal cicatricial lesions, and neurologic or ocular defects. Isolated ACC as the sole manifestation of CVS is exceedingly rare, necessitating careful clinical correlation.

Case Report: We report the case of a newborn from a twin pregnancy delivered via cesarean section at 37 weeks, with Apgar scores of 7, 8, and 8 at 1, 5, and 10 minutes, consequently. At birth, a linear, dermatomal defect was observed on the right leg, slightly depressed and covered by a thin, translucent membrane exposing subcutaneous tissue. Surrounding skin was erythematous and firm. The mother experienced malaise, fever, and a pruritic rash at 12 weeks, clinically diagnosed as varicella. There was no consanguinity or maternal drug exposure. Neonatal serology showed negative VZV IgM and elevated IgG, consistent with passive maternal transfer. ACC secondary to maternal varicella was diagnosed. Multidisciplinary evaluation revealed no additional anomalies, and the co-twin was unaffected. Management with topical antibiotics and non-adhesive dressings led to complete healing and a favorable outcome.

Conclusion: ACC may represent an isolated cutaneous manifestation of congenital varicella syndrome. The absence of extracutaneous anomalies in this patient highlights the spectrum of CVS, where isolated scarring may reflect a forme fruste fetal viral injury. Although many cases are benign, some may indicate serious underlying defects. This case underscores a key principle: dermatologic findings at birth can serve as early sign of prenatal events. Prompt recognition enables risk stratification and targeted evaluation. Newborns with ACC secondary to maternal varicella require multidisciplinary follow-up to monitor healing, growth, and potential late-onset complications. Even a solitary lesion may represent the only manifestation of prenatal viral injury, emphasizing the critical importance of careful dermatologic evaluation in neonatal care.

THE SCALP AS A SENTINEL SITE: CUTANEOUS METASTASIS REVEALING PREVIOUSLY UNDIAGNOSED BREAST CARCINOMA

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Introduction: Cutaneous metastases occur in a minority of patients with internal malignancies but may occasionally represent the first clinical sign prompting medical evaluation. In women, breast carcinoma represents the most common primary tumor associated with cutaneous metastases. Although scalp involvement is uncommon, it may present as indurated alopecic plaques, a presentation classically known as alopecia neoplastica. Because such lesions can clinically resemble inflammatory or cicatricial alopecias, diagnostic delay is possible without a high index of suspicion.

Case Report: A 53-year-old woman was referred for trichologic evaluation of progressively enlarging alopecic plaques on the parietal and occipital regions of the scalp. Clinical examination revealed four oval alopecic lesions, firm and distinctly infiltrated, erythematous to violaceous in color; one lesion displayed central crusting and superficial necrosis, and a small cervical lymph node was palpable.

Given the atypical morphology, a biopsy was performed. Histopathology demonstrated a dermal infiltrate of atypical epithelial cells arranged in nests and trabeculae with focal glandular differentiation, without epidermal connection, extending through the dermis and partially effacing adnexal structures.

Subsequent full body examination revealed an indurated plaque with Peau D'Orange appearance (~5 cm) in the right upper outer breast quadrant and ipsilateral axillary lymphadenopathy.

Histopathology demonstrated features of cutaneous metastatic carcinoma, which in the clinical context, are most consistent with a breast origin.

The patient was urgently referred to thoracic surgery for further evaluation and subsequently to oncology for staging and management, where she is currently undergoing systemic therapy.

Conclusion: This case highlights the scalp as a sentinel site of systemic malignancy. Scalp metastases may masquerade as alopecia, serving as the first clue to previously unrecognized breast carcinoma. Indurated alopecic plaques, particularly when they have atypical or vascular appearance, warrant prompt biopsy and comprehensive systemic examination. Recognition of the systemic malignancy depended not on histopathology alone, but disciplined clinicopathologic correlation coupled with meticulous full-body assessment. Dermatologic vigilance remains essential, as evaluation of localized scalp lesions may reveal internal malignancy, facilitating earlier staging, timely management and improved prognosis.

CPAP-ASSOCIATED NASAL NECROSIS COMPLICATED BY SEPSIS IN A PRETERM NEONATE: A CASE REPORT

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Introduction: Continuous Positive Airway Pressure (CPAP) is a cornerstone of respiratory support in preterm neonates. However, the nasal interface can precipitate device-related pressure injuries (DRPIs) through sustained pressure, shear/friction, and adverse microclimate at the skin–device junction. International pressure injury guidance recognizes DRPI risk in patients with medical devices and emphasizes device selection, correct sizing, and frequent skin assessment. Preterm infants are particularly vulnerable because neonatal skin has an immature barrier function and increasing susceptibility to mechanical injury and secondary infection.

Case report: We report the case of a late-preterm neonate with intrauterine growth restriction who, after initial resuscitation, required respiratory support with non-invasive ventilation. Within several hours of initiating bubble CPAP, a superficially ulcerated, irregularly shaped lesion developed on the nasal tip, with surrounding erythema. Despite early recognition and prompt initiation of local therapy, the lesion progressed. By day 3, it had extended toward the distal nose and nasal bridge, with features consistent with coagulative necrosis. A purple–erythematous perilesional discoloration was noted, accompanied by peripheral erythema and edema. The lesion demonstrated irregular borders and was consistent with a device-related pressure injury (stage III–IV), secondary to the non-invasive ventilation interface. Given the extent of tissue involvement, along with the immaturity of the neonate's skin barrier and immune defenses, late onset sepsis ensued, resulting in acute clinical deterioration and the need for comprehensive etiologic therapy, intensive supportive care, and substitution therapy, alongside intensified local management of the nasal lesion. After six days of systemic treatment, the neonate's overall condition stabilized. Local management included petrolatum gauze dressings and dual topical antibiotic therapy. Two weeks after treatment initiation, marked clinical improvement was observed, with complete resolution of the lesion by discharge on postnatal day 37.

Conclusion: This case highlights that CPAP-associated nasal DRPI in preterm neonates represent a potentially underestimated yet clinically significant complication. Rapid progression from superficial tissue damage to deep necrosis and late onset sepsis underscores the critical need for rigorous preventive protocols, early multidisciplinary intervention, and heightened surveillance in this highly vulnerable population.

BEYOND THE GENE: PLEC-ASSOCIATED EPIDERMOLYSIS BULLOSA SIMPLEX AND THE CHALLENGE OF CONTINUOUS CARE

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Introduction: Precision medicine has revolutionized the diagnosis of rare diseases, enabling early identification of pathogenic variants in genodermatoses such as epidermolysis bullosa (EB). Epidermolysis bullosa simplex (EBS) associated with PLEC gene mutations is a rare form that can manifest at birth with generalized blistering and an increased risk of extracutaneous complications. However, even with early genetic confirmation, real-world outcomes depend on sustained parental understanding, adherence, and structured multidisciplinary follow-up.

Case Report: We report the case of a 3-year-old female born at term to consanguineous parents, presenting with generalized blistering since birth, including a large lumbar bulla and an inguinal lesion. Over time, recurrent bullae evolved into erosions and hypopigmented scars. Examination revealed multiple new bullae on palms and ankles, oral aphthae, anonychia affecting several digits, and generalized onychogryphosis.

Genetic testing confirmed a homozygous likely pathogenic PLEC gene mutation variant (c.6409C>T; p.Gln2137*), establishing a pathogenetic form of EBS. Hospitalization was required due to exacerbation, during which comprehensive wound care, parental education, and a multidisciplinary follow-up plan were implemented to address potential systemic complications. Although the cutaneous manifestations of PLEC gene mutations associated with epidermolysis bullosa simplex are evident from birth, muscular dystrophy typically becomes apparent later in life, often developing during childhood or adolescence, highlighting the need for long-term surveillance and multidisciplinary follow-up.

Despite these interventions, regular follow-up was not maintained. The patient was repeatedly evaluated elsewhere for isolated manifestations: nail dystrophy (onychogryphosis), treated as presumed onychomycosis, and inspiratory stridor (omega epiglottis), attributed to separate pulmonary conditions, without integration into the underlying genetic diagnosis. This fragmented, symptom driven care highlights the challenge of connecting molecular precision with continuous and effective management.

Conclusion: This case shows that early genetic confirmation, while essential for accurate diagnosis, is insufficient to ensure optimal outcomes in rare diseases and illustrates the paradox of precision medicine: molecular certainty alone cannot guarantee therapeutic continuity. Effective management demands structured care pathways, multidisciplinary coordination, and sustained parental engagement. Beyond the gene, rare diseases require systems that translate diagnostic insight into actionable, continuous care - a lesson with broad relevance to clinicians and health systems managing genetically complex disorders. In rare genetic disorders, a diagnosis is not an endpoint but a call to coordinated action, right where vigilant care, parental engagement, and multidisciplinary strategies transform clinical certainty into meaningful patient outcomes.

PREVALENCE, CLINICAL CHARACTERISTICS, AND THE IMPACT OF SOCIAL MEDIA ON ADOLESCENT ACNE SELF-MANAGEMENT: A CROSS-SECTIONAL STUDY

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Introduction: Acne vulgaris is one of the most common dermatological conditions in adolescence, often causing significant psychosocial consequences, including low self-esteem, social withdrawal, and discomfort at school. With increasing social media use, adolescents frequently rely on non-professional sources for acne treatment information, which may lead to inappropriate self-treatment and delayed professional care. Understanding the influence of social media on adolescents' acne-related behaviors is essential for promoting safe and effective management.

Objective: This study aimed to evaluate the prevalence and clinical characteristics of acne in adolescents and to investigate the impact of social media on their treatment choices and self-care practices.

Materials and Methods: A cross-sectional observational study was conducted using an anonymous questionnaire created in Google Forms. The survey was administered to 108 high school students, aged 15 to 18 years, at the "Kiril Pejchinovikj" High School in Tetovo. The questionnaire included demographic data, the presence and severity of acne, psychosocial impact, dermatological care practices, and the influence of social media on treatment decisions. Responses were analyzed to identify patterns of social media usage and their correlation with self-administered acne therapies.

Results: Among participants, 84.3% reported having acne, mostly on the face (84.8%). Acne persisted for more than one year in 68.1% of respondents, and 66.7% had moderate severity. Psychosocial impact was notable: 63.2% reported reduced self-confidence, 50.9% avoided social interactions, and 74% felt uncomfortable at school. Only 16.2% had consulted a dermatologist. Social media use was high, with 79.4% spending over three hours daily online and 63.2% frequently watching acne treatment videos. Notably, 80.8% applied treatments recommended on social media, mainly cosmetic products (69%), but 80% observed no improvement, and 7.8% reported worsening.

Conclusion: Acne represents a highly prevalent dermatological condition among adolescents with significant psychosocial repercussions. Social media functions as a primary source of treatment information and exerts substantial influence on self-treatment behaviors, which frequently yield limited therapeutic benefit. Targeted educational interventions and promotion of timely dermatological consultation are critical to prevent inappropriate therapy, mitigate psychosocial burden, and ensure safe and effective acne management among adolescents.

DARIER DISEASE: A CASE REPORT WITH LONG-TERM FOLLOW-UP

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Introduction: Darier disease is a rare autosomal dominant hereditary acantholytic dermatosis caused by mutations in the ATP2A2 gene, which encodes a calcium pump in the endoplasmic reticulum, leading to abnormal keratinization and impaired cell adhesion. The disease begins between the ages of 6 and 20, with a peak onset during puberty. Clinically, it presents with hyperkeratotic, crusted papules, most commonly affecting seborrheic areas such as the forehead, scalp, nasolabial folds, chest, back, and intertriginous areas. Here, we present a patient with long-term follow-up and chronic, relapsing Darier disease.

Case report: In March 2019, a 38-year-old male patient presented with erythematous papules on the trunk and pruritus. The patient complained of lesion aggravation during the summer. A skin biopsy performed at the University Clinic for Dermatology, Skopje, confirmed Darier disease. Histopathology revealed acantholytic dyskeratosis with suprabasal clefts, corps ronds, grains in the stratum corneum, and prominent papillae. The patient reported no relevant past medical history, family history, or medication use. Notably, there were no nail or mucosal changes. Systemic treatment with acitretin (Neotigason) at alternating doses of 25 mg and 10 mg for nine months achieved complete remission. Following self-discontinuation in February 2020, the patient experienced a disease flare, which responded to short-term acitretin. A mild relapse in March 2021 required reintroduction of acitretin, and stable remission was maintained on 10 mg daily until the end of 2022.

From the end of 2022 until December 2025, the patient remained off treatment, with a stable dermatological status. In December 2025, a new exacerbation presented with multiple brown papulo-crusted lesions on an erythematous base on the trunk. Systemic acitretin treatment was reintroduced, and after three weeks, an improvement in the dermatological status was observed. The patient remains on therapy and remains under clinical observation.

Conclusion: This case highlights the chronic and relapsing nature of Darier disease and underscores the importance of long-term management with systemic retinoids. Regular follow-up and appropriate therapy are essential to maintain a stable dermatological condition and prevent disease exacerbations.

ADALIMUMAB-INDUCED RECURRENT LEUKOCYTOCLASTIC VASCULITIS IN A PATIENT WITH RHEUMATOID ARTHRITIS

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Introduction: Adalimumab is a recombinant human monoclonal antibody that functions as a tumor necrosis factor-alpha (TNF-α) inhibitor and is indicated for the treatment of rheumatoid arthritis and other immune-mediated inflammatory diseases. By selectively binding to TNF-α, adalimumab inhibits downstream pro-inflammatory signaling pathways, thereby modulating aberrant immune responses and attenuating chronic inflammation. Although generally well tolerated, adalimumab may rarely induce immune-mediated adverse effects, including cutaneous vasculitis.

Case report: A 58-year-old woman with intermittent, migratory swelling of the knees, ankles, and wrist joints with prolonged morning stiffness since 2009 was diagnosed in 2015 with seropositive rheumatoid arthritis (RF+, anti-CCP+, ANA+). Initial therapy, as prescribed by a rheumatologist, included hydroxychloroquine and chloroquine, but optimal control was achieved with methotrexate and low-dose corticosteroids, resulting in 3–4 years of remission. Following subsequent disease exacerbation, tocilizumab was initiated in 2020, with significant improvement until April 2024, when the patient developed thigh ecchymosis, cervical and supraclavicular swelling, upper limb edema, and diffuse erythema, prompting discontinuation. Disease activity fluctuated on methotrexate and corticosteroids alone.

In August 2025, adalimumab (40 mg every two weeks) was started. In September 2025, 2 weeks after administration, purpuric macules and papules appeared on the lower legs and thighs, resolving with corticosteroids. Similar lesions recurred after subsequent doses in November and December 2025. A skin biopsy in January 2026 confirmed leukocytoclastic vasculitis with neutrophilic perivascular infiltrates, leukocytoclasia, fibrinoid necrosis, and erythrocyte extravasation. Adalimumab was discontinued, and the cutaneous manifestations resolved completely. The patient remains under clinical observation.

Conclusion: Despite the favorable safety profile of adalimumab, paradoxical autoimmune events, such as leukocytoclastic vasculitis, may occur. In most patients, symptoms resolve completely after discontinuation of the causative therapy.

BREAKING THE CYCLE OF RELAPSE: RITUXIMAB IN CHRONIC STEROID-DEPENDENT PEMPHIGUS VULGARIS

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Introduction: Pemphigus vulgaris (PV) is a chronic autoimmune blistering disease driven by autoantibodies against desmogleins, resulting in suprabasal acantholysis and mucocutaneous blistering. While systemic corticosteroids remain the mainstay of therapy, long-term treatment is often complicated by adverse effects and steroid-dependent relapses. Rituximab has emerged as an effective steroid-sparing biologic therapy.

Case Presentation: We report a patient with generalized mucocutaneous PV presenting with painful oral and nasal erosions followed by widespread flaccid bullae and cutaneous erosions. Histopathology demonstrated suprabasal acantholysis, and direct immunofluorescence confirmed intercellular IgG and C3 deposition. Despite prolonged systemic corticosteroids combined with an immunosuppressive agent, repeated attempts at dose reduction triggered relapses, consistent with a steroid-dependent course. Coexisting diabetes mellitus significantly complicated management and increased the risks of chronic steroid exposure. Rituximab therapy was initiated due to inadequate disease control. After three treatment cycles, corticosteroids were successfully tapered, resulting in sustained clinical remission with markedly reduced steroid requirements.

Discussion: Steroid dependence in PV remains a major therapeutic challenge, particularly in patients with metabolic comorbidities. Rituximab, via targeted B-cell depletion, offers an effective steroid-sparing strategy and improved long-term disease control.

Conclusion: This case underscores the limitations of prolonged corticosteroid therapy in steroid-dependent PV and supports rituximab as an effective and safe steroid-sparing option, especially in patients with relevant comorbidities.

LICHEN NITIDUS IN CHILDHOOD:

DIAGNOSTIC CONSIDERATIONS AND OUTCOME

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Introduction: Lichen nitidus is an uncommon, benign inflammatory dermatosis predominantly affecting children and adolescents. It presents as multiple, tiny, shiny, skin-colored to hypopigmented papules, most often distributed on extensor surfaces. Because of its subtle clinical appearance and similarity to other papular dermatoses of childhood, careful evaluation and structured differential diagnosis are essential in everyday practice.

Case Presentation: A 9-year-old child was referred for dermatological evaluation due to asymptomatic, small whitish papules symmetrically located on the elbows and knees. According to heteroanamnesis obtained from the mother, the lesions had gradually developed over several months without associated pruritus or systemic symptoms. Dermatological examination revealed numerous monomorphic, millimetric, smooth, dome-shaped, non-follicular papules with preserved surrounding skin. On palpation, the lesions were smooth and lacked follicular hyperkeratotic texture, arguing against lichen spinulosus. Nails, mucous membranes, and the genital region were unaffected.

Dermoscopy was performed as a supportive diagnostic tool and demonstrated homogeneous whitish papules without vascular structures, keratotic projections, follicular plugging, or scaling. These findings were consistent with the clinical impression and assisted in excluding other papular conditions. Differential diagnoses included keratosis pilaris, verrucae planae, and lichen spinulosus. Considering the characteristic presentation and benign course, histopathological confirmation was not pursued.

A short course of low-potency topical corticosteroid was initiated, followed by topical pimecrolimus and regular emollient therapy. At three weeks, partial regression of the lesions was observed. Continued follow-up over the subsequent months showed gradual spontaneous resolution, resulting in near-complete clearance without recurrence.

Conclusion: This case demonstrates that lichen nitidus in children can often be diagnosed confidently through careful clinical evaluation supported by appropriate follow-up. In typical presentations, awareness of its benign and self-limiting nature helps guide a conservative approach and prevents unnecessary invasive procedures. Regular observation remains important to confirm the favorable course of the condition.

RAPID RESOLUTION OF ERYTHRODERMIC ATOPIC DERMATITIS FOLLOWING TREATMENT WITH ABROCITINIB

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Introduction: Atopic dermatitis (AD) is a chronic, systemic inflammatory skin disease with heterogeneous clinical manifestations and a significant impact on quality of life. Erythrodermic AD represents a severe and challenging phenotype, particularly in patients with contraindications to conventional systemic immunosuppressive therapies. Janus kinase inhibitors (JAKi) are considered optional first-line treatments for this phenotype.

Case Report: We report the case of a 36-year-old woman with a history of AD since early childhood who developed a severe disease exacerbation one year prior to presentation. The flare progressed to generalized erythroderma lasting three months, associated with diffuse desquamation, severe pruritus, and sleep disturbances. Physical examination revealed diffuse erythroderma with extensive lichenification and excoriations, predominantly affecting the head and neck. Disease severity scores were: body surface area (BSA) 95%, Eczema Area and Severity Index (EASI) 65.4, Investigator's Global Assessment (IGA) 4, and Scoring Atopic Dermatitis (SCORAD) 89.6. Laboratory findings showed elevated inflammatory markers, anemia, hypoproteinemia, iron deficiency, and markedly increased total serum IgE levels. Previous treatments, including antihistamines, repeated short courses of systemic corticosteroids, and topical therapies, failed to achieve disease control. Due to significant comorbidities, prolonged systemic corticosteroids and methotrexate were contraindicated. Abrocitinib therapy was initiated (100 mg once daily), resulting in rapid clinical improvement. Significant reduction in pruritus and improvement in sleep quality were observed within two weeks. After four weeks, only minimal episodic pruritus persisted, with marked improvement in skin inflammation and severity scores. At the five-month follow-up, sustained disease control was maintained. Laboratory parameters improved, with decreased inflammatory markers, correction of iron deficiency, and a progressive reduction in total serum IgE levels from 980 IU/mL at baseline to 300 IU/mL.

Discussion: Abrocitinib is a selective JAK1 inhibitor that modulates Th22 and Th1 pathways, improving both acute and chronic features of atopic dermatitis. This case illustrates the effectiveness and rapid onset of action of abrocitinib, both in skin and itch improvement in severe, refractory AD with erythroderma, particularly in patients with contraindications to conventional systemic therapies.

ECZEMA MOLLUSCATUM IN PEDIATRIC ATOPIC DERMATITIS: VIRAL DISSEMINATION ON AN IMPAIRED SKIN BARRIER

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Atopic dermatitis is a chronic inflammatory skin disorder characterized by epidermal barrier dysfunction and immune dysregulation, predisposing affected individuals to cutaneous viral infections.

Molluscum contagiosum is a common pediatric viral dermatosis. However, in patients with atopic dermatitis, lesions may become extensive and complicated by pronounced inflammatory changes referred to as eczema molluscatum. We report a pediatric patient with a history of moderate atopic dermatitis who presented with multiple clustered, dome-shaped, flesh-colored papules with central umbilication predominantly localized on the lower extremities. Several lesions were surrounded by erythematous, eczematous plaques accompanied by excoriations and significant pruritus. The clinical findings were consistent with *molluscum contagiosum* complicated by secondary eczematous inflammation.

The impaired epidermal barrier and Th2-predominant immune response characteristic of atopic dermatitis likely facilitated viral dissemination and triggered perilesional inflammatory reactions. The coexistence of active eczema and *molluscum contagiosum* poses diagnostic and therapeutic challenges, as inflammatory changes may mimic bacterial superinfection or exacerbation of the underlying dermatosis.

Early recognition of eczema molluscatum is essential for appropriate management. Treatment should focus on optimizing control of atopic dermatitis, relieving pruritus, and implementing targeted therapy for molluscum lesions to prevent further spread, reduce inflammation, and improve patient outcomes.

IRRITANT CONTACT DERMATITIS INDUCED BY DIMETHYLFORMAMIDE MIMICKING AQUAGENIC WRINKLING OF THE PALMS

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Introduction: Dimethylformamide (DMF) is a highly penetrative industrial solvent with well-established systemic toxicity, particularly hepatotoxicity following dermal absorption. Despite its widespread occupational use, acute cutaneous presentations remain insufficiently characterized. Due to its lipid-dissolving properties and ability to disrupt stratum corneum integrity, DMF exposure may precipitate significant epidermal barrier dysfunction. In rare instances, this may result in clinical phenotypes mimicking other dermatologic entities, posing a diagnostic challenge.

Case Report: We present the case of a 55-year-old male, car mechanic, who developed sudden palmar wrinkling, marked dermatoglyphic accentuation, diffuse edema, and burning sensation within hours of first-time unprotected DMF exposure. Notably, the changes occurred independently of water contact. Physical examination demonstrated prominent palmar swelling without significant erythema, vesiculation, or eczematous features. There was no history of cystic fibrosis, hyperhidrosis, or recurrent palmar dermatoses. Considering the known potential for systemic absorption, hepatic function tests were performed and remained within normal limits. Based on the acute onset, detailed occupational history, clinical morphology, and exclusion of alternative diagnoses, DMF-induced irritant contact dermatitis was established. Treatment with systemic corticosteroids, oral antihistamines, and topical barrier-repair therapy led to gradual resolution following exposure cessation.

Conclusion: This case illustrates an uncommon morphologic presentation of DMF-induced irritant contact dermatitis closely resembling aquagenic wrinkling of the palms. The likely mechanism involves acute solvent-mediated disruption of epidermal barrier lipids, resulting in transient osmotic imbalance and intercellular edema rather than electrolyte transport abnormalities characteristic of true aquagenic wrinkling. Recognition of this diagnostic mimicry is crucial to avoid misinterpretation and to ensure appropriate occupational and therapeutic management.

HIDDEN IN PLAIN SIGHT: CATERPILLAR-INDUCED ACUTE ALLERGIC DERMATITIS AS A DIAGNOSTIC PITFALL

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Caterpillar-induced dermatitis represents an underrecognized cause of acute pruritic eruptions and may pose a significant diagnostic challenge in dermatological practice. The condition results from contact with urticating hairs (setae) that penetrate the epidermis and release bioactive toxins capable of inducing an immediate inflammatory response, frequently mediated by mast cell activation. Owing to its polymorphic morphology and variable distribution, this entity may mimic other common pediatric dermatoses. We report two pediatric patients, aged five and two years, who developed acute pruritic eruptions shortly after direct contact with caterpillars. Clinical examination revealed multiple erythematous maculopapular and urticarial lesions predominantly affecting exposed body areas. In one patient, facial and cervical involvement presented as confluent erythematous plaques with papulo-vesicular elements, while the other exhibited scattered papules on the trunk and extremities. No systemic manifestations were observed in either case. Epidemiological history clearly established a temporal association between environmental exposure and symptom onset. Differential diagnoses included papular urticaria, allergic contact dermatitis, and insect bite hypersensitivity. Based on the characteristic morphology and exposure history, a diagnosis of acute allergic dermatitis secondary to caterpillar contact was established. Treatment with medium-potency topical corticosteroids and oral antihistamines resulted in rapid clinical improvement and complete resolution within one week, without sequelae. These cases emphasize the importance of thorough epidemiological assessment and clinical recognition of this frequently overlooked environmental dermatosis. Increased awareness is essential to prevent misdiagnosis and unnecessary interventions, particularly during seasonal peaks of caterpillar activity.

SUCCESSFUL TREATMENT OF RECALCITRANT OPHIASIS-PATTERN ALOPECIA AREATA WITH THE TOPICAL JAK 1/2 INHIBITOR RUXOLITINIB IN A PEDIATRIC PATIENT

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Alopecia areata (AA) is an autoimmune, nonscarring hair loss disorder. Ophiasis pattern AA is a rare, severe variant characterized by a band-like, wavy hair loss pattern affecting the temporal and occipital scalp regions. It is more common in children/adolescents than adults, is often resistant to treatment, and carries a poor prognosis. AA is a cell-mediated autoimmune disorder characterized by a cytotoxic T-cell response targeting hair follicles. Recent studies have elucidated the role of the JAK/STAT signaling pathway in promoting inflammation in the hair follicle microenvironment. Ruxolitinib cream 1.5%, a selective Janus kinase (JAK) 1 and 2 inhibitor, has emerged as a novel therapeutic agent in dermatology. It is the first topical JAK inhibitor approved by the Food and Drug Administration for atopic dermatitis and non-segmental vitiligo. We present the case of an 11-year-old boy diagnosed with alopecia areata at the age of 8. The disease initially manifested with well-demarcated alopecic patches in the occipital region (ophiasis pattern), followed by gradual progression involving the frontal, parietal, and temporal scalp regions, as well as complete loss of body hair on the trunk and extremities (alopecia universalis). Medical history was significant for atopic and allergic diathesis and recurrent streptococcal tonsillitis. Family history was negative for autoimmune and other relevant chronic diseases. At initial evaluation at our clinic, the Severity of Alopecia Tool (SALT) score was 29%, indicating a moderate-to-severe form of the disease. Comprehensive laboratory investigations and autoimmune screening were performed, with all results within normal reference ranges. Systemic therapy with methotrexate in combination with systemic corticosteroids was initiated, along with topical treatment with a potent corticosteroid, a calcineurin inhibitor, and minoxidil. After four months of treatment, significant clinical improvement was observed. Systemic therapy with methotrexate and corticosteroids was continued for a total duration of 2.5 years, during which periods of remission and exacerbation were noted. Treatment was eventually discontinued due to poor tolerance and objectively documented gastrointestinal adverse effects. Following cessation of systemic therapy, the disease exacerbated. Anticipating further progression, topical ruxolitinib cream (Opzelura) was initiated and continued for 6 months, resulting in complete clinical remission. At the most recent follow-up visit, the SALT score was 0%. AA in the pediatric population represents a therapeutic challenge, particularly in cases that are refractory to or intolerant of conventional immunosuppressive therapy. While systemic treatment may induce an initial response, relapses remain frequent. Topical Janus kinase (JAK) inhibitors, such as ruxolitinib, represent a promising therapeutic alternative in refractory and relapsing pediatric AA.

LICHEN PLANUS ATROPHICUS AS POSTHERPETIC WOLF'S ISOTOPIC RESPONSE

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Introduction: Wolf's isotopic response is a rare dermatological phenomenon defined as the occurrence of a new and morphologically different dermatosis at the site a of a previously completely healed dermatosis caused by herpes zoster virus. Secondary dermatoses include granulomatous, lichenoid, autoimmune, and neoplastic entities. The pathogenesis has not fully been clarified; discussions include neuroimmunological dysregulation, local vascular changes, and persistent immune alteration in the affected dermatome. Lichen planus atrophicus as Wolf's isotropic response is an extremely rare phenomenon.

Case report: We present the case of a 63-year-old immunocompetent patient who presented with unilateral hyperpigmentation with discrete erythematous foci in the right lower abdominal quadrant. This lesion appeared two months after a successfully treated infection with herpes zoster at the same location. Clinical, the differential diagnosis included lichen striatus, post-inflammatory hyperpigmentation and lichen planus atrophicus. A skin biopsy was performed, and histopathological examination confirmed the diagnosis of lichen planus atrophicus. The patient was treated with emollient therapy prescribed in correlation with the clinical condition.

Conclusion: Lichen planus atrophicus as a post-herpetic Wolf's isotopic response is an extremely rare but significant entity, occurring in approximately 5% of secondary dermatosis preceded by infection with the herpes zoster virus. The appearance of a new lesion at the same site as a previously healed dermatosis requires careful evaluation and, when necessary, histopathological confirmation. Early recognition enables accurate diagnosis, a rational therapeutic approach, and avoidance of unnecessary interventions.

LOW-CONCENTRATION TOPICAL DICLOFENAC (1%) COMBINED WITH ORAL NICOTINAMIDE IN DISSEMINATED SUPERFICIAL POROKERATOSIS: A FIVE-MONTH CLINICAL RESPOSE

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Disseminated superficial actinic porokeratosis (DSAP) is an uncommon disorder of keratinization characterized by multiple annular hyperkeratotic plaques with central atrophy and a raised peripheral ridge histologically corresponding to the cornoid lamella. Management remains challenging, as therapeutic options are limited and responses are often inconsistent.

We report the case of a 67-year-old woman presenting with progressively increasing, erythematous-brown annular plaques involving the upper and lower extremities. The lesions initially appeared five years earlier in limited number and gradually expanded in distribution and density. Dermoscopic evaluation revealed characteristic peripheral white track-like borders, and histopathological examination confirmed the diagnosis by demonstrating cornoid lamellae with focal epidermal dyskeratosis. In light of the extensive cutaneous involvement and the patient's preference for non-invasive management, treatment was initiated with topical diclofenac 1% gel applied twice daily in combination with oral nicotinamide 250 mg twice daily. After six months of continuous therapy, substantial clinical improvement was observed, including flattening of the hyperkeratotic borders, reduction in erythema, and stabilization of disease without the development of new lesions. The treatment regimen was well tolerated, and no local or systemic adverse effects were reported.

Despite the use of a lower diclofenac concentration (1% rather than the more commonly reported 3%), significant clinical improvement was achieved over a five-month period without adverse events. This case suggests that low-concentration topical diclofenac, particularly in combination with oral nicotinamide, may represent a safe and accessible therapeutic option for disseminated superficial porokeratosis. Further controlled studies are warranted to clarify its therapeutic role and long-term efficacy.

TOPICAL RUXOLITINIB IN TREATMENT OF NON-SEGMENTAL VITILIGO

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Introduction: Vitiligo is a chronic disease characterized by patchy loss of skin pigmentation. It can be classified into two main types: segmental and non-segmental, and mixed if both types are present. Although often considered a cosmetic condition, vitiligo can have significant negative impacts on an individual's quality of life, with patients often experiencing stigma and other psychosocial burdens associated with the disease. Pharmaceutical management of non-segmental vitiligo involves stabilizing active disease, preventing flare-ups, and, when appropriate, initiating repigmentation, mainly with topical corticosteroids and/or topical immunomodulators such as calcineurin inhibitors. In this report, we describe a case of segmental vitiligo treated with topical ruxolitinib in a 12-year-old patient.

Case report: A 12-year-old patient with vitiligo, diagnosed more than 2 years earlier, presented for evaluation. Dermatological examination revealed well-demarcated depigmented macules of varying sizes and irregular shapes, localized in the perioral and periorbital regions, the abdominal region, and on the extensor surfaces of the elbows. The lesions had clearly defined borders, without signs of erythema, infiltration, or desquamation. The skin surface was smooth and of normal texture. The patient was treated with topical ruxolitinib 1.5% cream applied twice daily. Complete repigmentation of the facial lesions was observed after 4 months of treatment.

Discussion: Topical ruxolitinib 1.5% cream, a Janus kinase (JAK) inhibitor, is the first treatment approved in several countries for patients aged ≥ 12 years with non-segmental vitiligo. Ruxolitinib 1.5% cream is also approved in the United States for the short-term and non-continuous chronic treatment of mild-to-moderate atopic dermatitis in non-immunocompromised patients aged ≥ 12 years whose disease is not adequately controlled with topical prescription therapies.

SECONDARY ANTIPHOSPHOLIPID SYNDROME WITHIN THE LUPUS SPECTRUM MIMICKING CHILBLAIN LUPUS ERYTHEMATOSUS

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Introduction: Antiphospholipid syndrome (APS) is a rare systemic autoimmune disease characterized by persistent antiphospholipid antibodies (aPL) and a broad clinical spectrum including thrombotic and non-thrombotic manifestations, as well as obstetric complications. APS may occur as a primary condition or as a secondary disorder in association with other autoimmune diseases, as in our case. Cutaneous involvement may manifest as chilblain-like acral lesions, mimicking chilblain lupus erythematosus (LE), a rare acral variant of chronic cutaneous LE.

Case Report: We report the case of a 37-year-old woman with a history of preeclampsia who presented with erythematous plaques on the extensor surfaces of the elbows and knees, painful swelling of the hand and finger joints, firm erythematous nodules involving the fingers, and subsequently chilblain-like plaques with nodular components on the lateral aspect of the left ankle. The lesions first appeared two years earlier and have gradually progressed over time. Laboratory evaluation revealed elevated inflammatory markers, hypocomplementemia (low C4), and persistent aPL positivity on repeated testing performed at least 12 weeks apart. Additional immunological findings included ANA positivity (1:160, speckled), positive ANCA by indirect immunofluorescence, and elevated anti-U1 snRNP antibodies. Histopathological examination of a skin biopsy demonstrated lymphocytic vasculitis with prominent vaso-occlusion. Based on obstetric morbidity, persistent aPL positivity, histopathological findings, and exclusion of alternative diagnoses, secondary APS within the lupus spectrum was diagnosed. Treatment with hydroxychloroquine, antithrombotic prophylaxis, and topical therapy led to gradual clinical improvement.

Conclusion: This case highlights the diagnostic complexity of chilblain-like acral lesions, emphasizing that such manifestations may represent APS-related cutaneous vasculopathy rather than true chilblain LE. A key diagnostic pitfall lies in differentiating these two conditions, which is essential to avoid misdiagnosis and ensure appropriate management.

TRICHOTILLOMANIA IN A 4-YEAR-OLD CHILD MIMICKING ALOPECIA AREATA

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Introduction: Trichotillomania is an obsessive-compulsive related disorder classified in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). It is characterized by self-induced, chronic, repetitive hair pulling resulting in nonscarring alopecia, particularly in pediatric patients, where it is frequently under-recognized.

Case presentation: We report the case of a 4-year-old boy presenting with a more than one-year history of a persistent alopecic patch on the scalp. Eight months earlier, the patient had been diagnosed with alopecia areata and treated with topical corticosteroids and calcineurin inhibitors for several months, without clinical improvement. Dermatological evaluation revealed an irregular, nonscarring alopecic area located on the vertex of the scalp. Routine laboratory investigations, including thyroid function tests, were within normal limits, and microbiological examinations were negative. Detailed heteroanamnesis obtained from the mother disclosed long-standing repetitive hair pulling and twisting before falling asleep. Correlation of clinical findings with behavioral history and exclusion of other causes of nonscarring alopecia led to the diagnosis of trichotillomania. Management included parental counseling and cognitive-behavioral therapy focused on habit reversal, without pharmacological treatment, resulting in progressive improvement and near-complete hair regrowth during follow-up.

Conclusion: Trichotillomania in childhood may clinically mimic several conditions, including alopecia areata, tinea capitis, traction alopecia, telogen effluvium, and other causes of pediatric nonscarring alopecia. This case emphasizes the importance of recognizing trichotillomania as a distinct cause of pediatric nonscarring alopecia. Careful anamnesis and early identification of hair-pulling behaviors are essential to ensure appropriate behavioral management and to avoid unnecessary pharmacological or immunosuppressive treatments.

PLANT-INDUCED ACUTE ANNULAR CONTACT DERMATITIS IN A CHILD MIMICKING TINEA FACIEI

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Background: Plant-induced contact dermatitis is a common but sometimes underrecognized inflammatory reaction in children. Acute annular morphology may closely resemble dermatophyte infection, leading to misdiagnosis and unnecessary antifungal therapy.

Case Presentation: We report the case of an 8-year-old girl presenting with acute annular erythematous lesions on the right side of the face. According to heteroanamnesis, five days prior to presentation, she had direct contact with plant leaves involving the periorbital area, nose, and forehead, followed by outdoor sun exposure. Immediately after contact, the child experienced a burning sensation at the affected sites. Within 48 hours, well-demarcated annular erythematous plaques with mild peripheral scaling developed, strictly limited to the areas of exposure. Direct microscopic examination with potassium hydroxide (KOH) preparation was performed and was negative for fungal elements, thereby excluding tinea faciei.

Management and Outcome: Short-term topical anti-inflammatory therapy and supportive care were initiated. Marked clinical improvement was observed, with near-complete resolution within 7 days.

Conclusion: Plant-induced acute annular contact dermatitis may clinically mimic tinea faciei in pediatric patients. Careful exposure history and simple bedside testing, such as KOH examination, are essential for accurate diagnosis and rational management.

WHEN ECZEMA IS NOT ECZEMA – DERMOSCOPIC CLUES IN MAMMARY PAGET DISEASE

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Background: Mammary Paget disease (MPD) is an uncommon manifestation of underlying breast carcinoma, most frequently associated with ductal carcinoma *in situ* (DCIS). Clinically, it often mimics chronic eczema of the nipple–areolar complex, leading to delayed diagnosis. Imaging studies may remain negative in early stages, placing greater diagnostic responsibility on clinical and dermoscopic evaluation.

Case Presentation: A 57-year-old woman presented with a persistent unilateral erythematous, scaly, partially eroded plaque involving the right areola, accompanied by intermittent serous discharge and nipple retraction. The lesion had been treated for nearly one year as eczema and bacterial infection with topical corticosteroids and systemic antibiotics, without clinical improvement. Repeated mammography and breast ultrasound were unremarkable (BI-RADS 1–2). Polarized dermoscopy revealed an asymmetric lesion with a polymorphous vascular pattern, including irregular linear and serpiginous vessels over a pink-to-milky red background, focal dotted vessels surrounding erosions, and multiple white structureless areas. Shiny white streaks (crystalline structures) were visible under polarized light. Superficial erosions with serohemorrhagic crusts were present. Notably, there was absence of typical eczematous yellow scaling and absence of a regular dotted vascular pattern characteristic of inflammatory dermatoses. No melanocytic structures were identified. These dermoscopic findings raised suspicion for an intraepidermal malignant process. Biopsy confirmed mammary Paget disease. Subsequent surgical specimen demonstrated high-grade DCIS without dermal invasion (pTis), and HER2 overexpression (ER−, PR−, HER2+++). The patient underwent quadrant resection followed by adjuvant chemotherapy, radiotherapy and trastuzumab therapy.

Conclusion: Persistent unilateral “eczema” of the nipple–areolar complex unresponsive to appropriate therapy should prompt early dermoscopic evaluation and biopsy, even in the presence of normal imaging. Dermoscopy can reveal subtle malignant clues that facilitate earlier diagnosis and improve oncologic outcomes.

APPLICATION OF EXOSOME IN TREATMENT OF PERIORAL DERMATITIS

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Introduction: Perioral dermatitis is a common chronic inflammatory dermatosis localized around the mouth and nose. It most frequently occurs in women aged 20 to 50 years. This dermatosis is characterized by small erythematous micropapules and microvesicles. Treatment may be topical or oral, depending on the severity of perioral dermatitis. Topical therapy includes *metronidazole, erythromycin, and pimecrolimus*. Oral therapy includes *tetracycline, doxycycline, minocycline*.

Material and methods: Exosomes represent an innovative therapy that shows promising results due to their anti-inflammatory and regenerative effects. They are microscopic vesicles containing proteins, lipids and genetic material. Their primary function is to act as carriers of active components, thereby accelerating regenerative processes at the cellular level. The application of exosomes using a microneedling technique may reduce inflammation and may regenerate tissue, leading to improvement of the symptoms of perioral dermatitis.

Aim: To present the efficacy and improvement of perioral dermatitis after the application of exosomes using microneedling. We present the case of a 43-year-old female patient clinically diagnosed with perioral dermatitis.

Results: The application of exosomes using microneedling significantly improved the condition of the patient with perioral dermatitis. The first results were observed 3 weeks after the application of exosomes. The results obtained are highly positive and open the possibility for broader use of this relatively new and innovative therapy in our dermatological practice.

EXACERBATION OF PSORIASIS AFTER CHEMOTHERAPY (CYSPLATIN AND DOCETAXEL) IN A PATIENT WITH SQUAMOUS CELL CARCINOMA OF THE LUNG

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Introduction: Psoriasis is a chronic autoimmune skin disease that may be aggravated by various factors, including medications. In patients with pre-existing psoriasis, different oncologic therapies can cause exacerbations due to immune modulation, direct toxic effect on keratinocytes, or increased antigen presentation. Squamous cell carcinoma of the lung is a common malignant disease in smokers and is often treated with combination chemotherapy that includes platinum derivatives (such as cisplatin) and taxanes (such as docetaxel). Cisplatin rarely induces psoriasiform eruptions, whereas docetaxel has been documented to be associated with the development or exacerbation of psoriasis in patients with NSCLS, most likely by induction of keratinocyte apoptosis and a subsequent inflammatory cascade. The combination of cisplatin and docetaxel is standard in some regimes for advanced lung SCC; however, literature regarding its effect on psoriasis is limited and mainly based on isolated cases involving taxanes. This case highlights the importance of a multidisciplinary approach and preventive skin monitoring in high-risk patients.

Case report: We present the case of a 65-year-old male smoker, with a 20-year history of moderate plaque psoriasis (PASI<5), controlled with topic therapy, who was diagnosed with squamous cell carcinoma of the lung. Combination chemotherapy with cisplatin 110 mg and docetaxel 120 mg was initiated. After the first cycle, the skin lesions remained stable (mild plaques on the elbows and knees). After the second cycle, worsening occurred – erythematous plaques with silvery scales appeared on the scalp, hands, feet, forearms, elbows, knees, sacral region, accompanied by intense pruritus, desquamation, and pain. Nails were also affected. The PASI score increased to 20. Chemotherapy was continued with a reduced dose without further exacerbation. The patient was treated with topical therapy, resulting in mild improvement of the condition.

Conclusion: This case represents a rare but clinically important complication – moderate exacerbation of psoriasis following combined therapy of cisplatin and docetaxel in a patient with squamous cell carcinoma of the lung. The mechanisms involve a synergistic effect: immunogenic cell death induced by cisplatin and direct keratinocyte toxicity caused by docetaxel. In patients with a history of psoriasis and risk factors (smoking, age >60 years), dermatological monitoring during therapy is essential, as well as a multidisciplinary approach (oncologist, dermatologist, rheumatologist). Early detection allows continuation of oncologic therapy and significantly improves the patient's quality of life.

CONTACT URTICARIA INDUCED BY PARA-PHENYLENEDIAMINE EXPOSURE AFTER HENNA DYE

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Introduction: Contact urticaria and contact dermatitis are skin reactions that occur after direct contact with external substances, including allergens and irritants. Henna itself rarely causes allergic reactions, but adding para-phenylenediamine (PPD) in commercial preparations significantly increases the risk of developing allergic contact reactions. Based on its pathophysiology, contact dermatitis is divided into two types: irritant (non-allergic) and allergic contact dermatitis. Allergic contact dermatitis is a type IV immune reaction (delayed hypersensitivity) that occurs after prior skin sensitization.

Case presentation: We present a case of a 16-year-old patient with inflammatory changes on the palms following henna application to another person. On her palms, more prominently on the palmar surfaces, numerous erythematous changes were observed, with the presence of papules and vesiculobullous lesions, partially ruptured, with serous exudate, and formation of yellowish, honey-colored crusts. The skin was edematous with signs of irritation and inflammation. Fissures were also visible, particularly in the area of the flexor creases of the fingers. At her primary care center, the patient was treated with oral antihistamines and topical corticosteroid therapy, with no significant improvement.

Conclusion: The clinical history, symptoms, and the localization of the lesions in the patient were the main factors that led us toward the diagnosis of allergic contact dermatitis caused by henna. Henna is a pigment prepared from the leaves of the plant *Lawsonia inermis*. Henna itself rarely causes allergic reactions. However, in the manufacturing process of hair dyes, it may be combined with PPD to enhance the darkening effect of the color and accelerate drying, creating "black henna" that may be a potent allergen. Para-phenylenediamine is an aromatic amine that was synthesized in Germany by Hofmann in 1833, with the aim of developing a substance with good antioxidant and dyeing properties. It is found in various products, including rubber, printer toners, photographs, and footwear, although the main and currently most relevant sources are tattoos with henna and hair dyes. In the case of hair dye, PPD gives very good cosmetic results. However, it also easily penetrates the skin, leading to sensitization and subsequent development of allergic contact dermatitis. Considering the potential for severe skin reactions and long-term consequences, early recognition of henna-related contact dermatitis and timely diagnosis are of critical importance for appropriate treatment and prevention of re-exposure.

LINEAR PAN-SCLEROTIC MORPHEA

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Linear pan-sclerotic morphea (LPSM) is a rare, potentially severe subtype of localized scleroderma, most commonly occurring in children. It is characterized by progressive linear fibrosis with potential involvement of the skin, subcutaneous tissue, fascia, muscles, and underlying bone structures. Unlike systemic sclerosis, LPSM is not associated with internal organ involvement; however, due to its potential for rapid progression, it may result in significant functional impairment, contractures, and permanent aesthetic sequelae. Early diagnosis and timely initiation of therapy are essential to prevent irreversible damage and disability.

We present the case of a 13-year-old girl with a gradually progressive hypopigmented linear lesion on the left upper extremity, showing proximal extension over several months. Clinical examination, serial photographic documentation, and dermatological assessment were suggestive of LPSM. An extended laboratory, immunological, and infectious disease evaluation was performed. Serological testing for *Borrelia burgdorferi* revealed isolated IgM positivity without IgG seroconversion, which, after careful clinical correlation, was interpreted by an infectious disease specialist as a false-positive result.

Early and intensive local immunosuppressive therapy was initiated, consisting of a potent topical corticosteroid in combination with a calcineurin inhibitor, with gradual modification of the therapeutic regimen according to clinical response. During follow-up, significant regression of the sclerotic changes was observed, without further progression or development of new lesions.

This case highlights the importance of early clinical recognition, accurate differential diagnosis, and an individualized therapeutic approach in pediatric patients with suspected LPSM. Prompt intervention and careful long-term follow-up are crucial for disease stabilization and prevention of permanent functional and aesthetic complications.

TISSUE EXPANSION TECHNIQUE AS MODERN METHOD OF CHOICE FOR TREATMENT OF POST-BURN SCARRING AND CONTRACTURE – CASE REPORT

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Introduction: Post-burn scarring and contractures remain a major reconstructive challenge, often leading to functional impairment and cosmetic deformity. Traditional methods including skin grafting or local flaps may provide coverage but frequently result in color mismatch, secondary contracture, or limited durability. Tissue expansion has emerged as a modern technique of choice, offering the advantage of replacing scarred tissue with adjacent, well-vascularized skin of similar texture and color. Codvilla, who attempted to lengthen femur tissue in the hip area, first reported tissue expansion technique for medical purposes in 1905. This technique is based on the fact that all living tissues respond in a dynamic fashion to the mechanical stresses placed on them.

Case presentation: We present the case of a 36-year-old woman with a severe elbow contracture due to serious burn trauma to her arm. At our Department, the patient presented with restricted extension and difficulty performing daily activities. According to the medical history, the patient experienced limited flexion and impaired arm movement for a prolonged period, accompanied by psychological distress due to a hypertrophic scarring. After a detailed medical history and physical examination, the most appropriate aesthetic option was considered. A silicone tissue expander was placed subcutaneously in the upper arm region adjacent to the scar. Over a period of 10 weeks, gradual expansion was achieved, followed by excision of the contracture and advancement of the expanded skin flap. Postoperatively, the patient regained a full range of motion at the elbow, with excellent color and texture match of the reconstructed area. At 12-month follow-up, there was no recurrence of contracture, and the patient reported significant improvement in function and self-confidence.

Conclusion: Our case report emphasizes tissue expansion as a modern and effective option for treating post-burn scarring and contracture of the elbow. By utilizing local, well-vascularized skin, the technique achieves durable functional release and superior aesthetic outcomes, making it a preferred reconstructive strategy in selected patients. Tissue expansion has become a modern reconstructive option, providing adjacent skin of similar texture and elasticity for both functional release and cosmetic restoration.

BEYOND THE INTESTINAL GLUTEN-INTOLERANCE: A CLINICAL CASE OF DERMATITIS HERPETIFORMIS IN A 10-YEARS-OLD BOY

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Dermatitis herpetiformis, also known as Morbus Duhring, is an autoimmune skin dermatosis first described by the American dermatologist Louis Duhring. Van der Meer further contributed in portraying Morbus Duhring by identifying a key immunological feature: granular IgA deposits at the dermo-epidermal junction. The prevalence in Europe ranges from 11.2 to 75.3 per 100,000 people, with higher incidence in adult males carrying the HLA DQ2 and DQ8 haplotypes. Dermatitis herpetiformis is rarely reported in pediatric patients, and when present, it is often misdiagnosed as atopic dermatitis. Direct immunofluorescence (DIF), considered the diagnostic gold standard for dermatitis herpetiformis, typically demonstrates granular IgA–epidermal transglutaminase 3 immunocomplex deposition along the dermoepidermal junction and/or within the dermal papillae

Case report. We present a clinical case of a pediatric patient diagnosed with dermatitis herpetiformis at the University Clinic for Dermatology in Skopje. Since early childhood, the patient presented with mild itchiness and had been clinically diagnosed and treated according to the national guidelines for atopic dermatitis in children. Over the time, the skin changes evolved into papular exanthemas and vesicular eruptions, primarily affecting the patient's elbows and knees. No medical history of coeliac disease (gluten-sensitive-enteropathy) was reported at the time of examination. To confirm Morbus Duhring, a perilesional skin biopsy was performed, along with a potassium iodide (KI) path test. Given the consistent dermopathological findings, the patient was diagnosed with dermatitis herpetiformis, initially recommend gluten-free diet and later on treated with Betamethasone dipropionate cream (0.5 mg/1g) for topical application at sites of itchiness once every other day, and Tacrolimus monohydrate cream (0.33%) once daily.

Conclusion: This clinical case highlights the importance of considering Morbus Duhring in the differential diagnosis of chronic pruritic dermatoses in children. Accurate diagnosis, followed by the timely initiation of gluten-free diet and adequate topical treatment can significantly improve clinical outcomes and quality of life.

TRICHOSCOPY AS A TOOL FOR DIAGNOSIS AND TREATMENT MONITORING OF LICHEN PLANOPILARIS

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Introduction: Lichen planopilaris (LPP), a morphological variant of lichen planus, is a rare, chronic, inflammatory skin condition that can result in difficult-to-treat cicatricial alopecia. Its typical manifestation is multiple areas of alopecia on the central scalp, accompanied by perifollicular erythema, hyperkeratosis, pruritus, or pain. Three variants of LPP are recognized: classic LPP, frontal fibrosing alopecia (FFA), and Graham-Little-Piccardi-Lassueur syndrome. A fourth variant, fibrosing alopecia in a pattern distribution (FAPD), has been described in cases of androgenetic alopecia in which lesions identical to those seen in LPP were found. Early diagnosis and intervention are critical, as advanced stages with permanent follicular scarring are challenging to treat. Histopathologic examination is considered the gold standard diagnostic method. Here, we present a case of LPP where trichoscopy was a highly effective tool for diagnosis and treatment monitoring.

Case presentation: A 33-year-old otherwise healthy female presented for evaluation due to significant hair shedding, scalp erythema, persistent scalp pain, and pruritus lasting more than 4 months. She had initially been treated with 5% topical minoxidil foam and 2% ketoconazole shampoo. Physical examination revealed an alopecic area in the centroparietal scalp. Trichoscopy showed perifollicular hyperkeratosis and polytrichia with perifollicular scales or erythema and target-pattern blue-gray dots. A scalp biopsy was performed at the site of involvement, revealing a scarring alopecia with polytrichia, perifollicular fibrosis, perifollicular lymphocytic infiltrate, and loss of sebaceous glands, confirming the diagnosis of LPP. Treatment with topical tacrolimus and clobetasol was started. Three weeks later, the patient had mild improvement, with alleviation of erythema and pain, but residual mild itching remained. After 3 months, a significant increase in hair density was observed in the previously alopecic scarred area, with resolution of scalp pruritus. No signs of active inflammation were observed on trichoscopy at 3-month follow-up.

Discussion: LPP is an uncommon scalp disease for which diagnosis remains challenging. Trichoscopic findings of LPP include absence of follicular openings, perifollicular scaling, milky-red areas, and blue-gray dots in a target pattern. Perifollicular scaling (casts) is considered the most characteristic trichoscopic feature of LPP. This case report emphasizes that trichoscopy can improve the accuracy of the clinical diagnosis of LPP and is a tool for monitoring treatment effectiveness.

DEMOGRAPHICS, CLINICAL CHARACTERISTICS, AND TREATMENT PATTERNS IN PATIENTS WITH PSORIASIS: INSIGHTS FROM THE MACEDONIAN PSORIASIS REGISTRY

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Psoriasis is a chronic immune-mediated inflammatory disease characterized by significant variability in clinical presentation and associated comorbidities. We aimed to describe the baseline demographic and clinical characteristics of patients with psoriasis enrolled in the Psoriasis Registry at the University Clinic for Dermatology in Skopje.

This study included ambulatory or hospitalized patients with psoriasis, treated at the University Clinic for Dermatology in Skopje.

Baseline demographic, clinical, and comorbidity data were collected and analyzed, along with PASI scores, treatment modalities, and follow-up assessments. In total, 138 patients were enrolled.

The mean age at diagnosis was 42 years, with a median disease duration of 86 months and a mean body mass index of 29 kg/m^2. The male-to-female ratio was 82:56. A positive family history of psoriasis was reported in 62% of the participants. A total of 48 patients (35%) were documented to have comorbidities, and 52 (38%) had psoriatic arthritis. Plaque psoriasis was the most common subtype (61%), and the most frequently affected body regions were extremities, followed by the trunk and scalp. The mean PASI score at baseline was 9.4.

Conventional systemic therapies were prescribed to 37% of patients, with neotigasone and methotrexate being the most commonly used agents. Biologic therapies were prescribed to 17 (12%) patients, with secukinumab being the most commonly used. In addition, 71% of the cohort received phototherapy.

Our clinical registry provides valuable insights into the demographics, clinical characteristics, and treatment patterns of patients with psoriasis in Macedonia. These findings emphasize the need for real-world data to guide regional psoriasis management strategies and resource planning.

ALLERGIC CONTACT DERMATITIS TO 2-HYDROXYETHYL METHACRYLATE IN A 31-YEAR-OLD HAIRDRESSER: A CASE REPORT

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HEMA (2-Hydroxyethyl methacrylate) is a well-recognized acrylate monomer widely used in gel nail systems, dental materials, adhesives, and industrial products. In recent years, allergic contact dermatitis (ACD) caused by acrylates has increased, particularly among workers in the beauty industry.

We report a case of occupational ACD to HEMA in a 31-year-old female hairdresser who presented with a two-month history of progressive periungual skin changes affecting both hands. Dermatological examination revealed fissures (rhagades) and hyperkeratotic changes localized over the proximal nail folds bilaterally, accompanied by mild erythema and scaling. The patient reported frequent occupational exposure to nail cosmetic products and occasional application of gel nails without consistent protective glove use. Patch testing with the European baseline series and an extended acrylate series demonstrated a strong positive reaction (++) to HEMA at 48 and 72 hours, confirming the diagnosis of allergic contact dermatitis. No other clinically relevant sensitizations were identified. The patient was advised to avoid exposure to acrylate-containing products and to implement strict protective measures. Topical corticosteroid therapy and regular emollient use were initiated. Marked clinical improvement was observed within six weeks following exposure avoidance.

This case highlights the importance of considering acrylate allergy in patients presenting with chronic periungual dermatitis, particularly in individuals with occupational exposure in the beauty sector. Early recognition and targeted patch testing are essential to prevent chronic disease progression and occupational impairment.