Abstract N°: 29

Atopic Dermatitis: Untangling the Autoimmunity Novel Insights in the Era of Targeted Therapies

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Atopic Dermatitis: Untangling the Autoimmunity Novel Insights in the Era of Targeted Therapies

Introduction & Objectives:

The story started in 2014 (Donald YM Leung, Emma Guttman-Yassky), when a team of researchers at Mount Sinai proved the basis of the autoimmune-directed nature of AD. This article review and meta-analysis will address in depth the driven autoimmune pathways of AD, and how the immunotherapy pipeline is moving forward in AD.

Materials & Methods:

Previously published data and observational studies were collected by retrieving published literature from PubMed, Google Scholar, and the Web of Science using “Atopic Dermatitis and Autoimmunity” recommendations and guidelines.

Results:

There has been a lot of progress in the last decade in understanding the immunopathogenesis of AD and ascertaining the consolidation of the two major previous hypotheses (inside-out and outside-in hypotheses) proposed by Silverberg NB and Silverberg JI in 2015. Implicating both theories to play parts—inflammation as the culprit and subsequent immune dysregulation. In AD, the damaged epidermal barrier is a crucial point that allows the penetration of potential allergens and/or pathogens to activate keratinocytes, the main immune scavenger cells and via cross-talk between both innate and adaptive immune system arrays with the release of different cascades of cytokines to drive the novel autoimmune process and contribute to the pathogenesis of AD.

Conclusion:

The understanding the new autoimmune novel nature of AD is pivotal and will help to map out more precise targeted immunotherapy to improve patients’ quality of life. Indeed, recent and current evidence suggests cytokine-targeted therapy (IL-13 and its inhibitors, tralokinumab and lebrikizumab) to play a crucial role and seem to be a possible treatment for patients with AD. However, more in-depth studies are needed to find the right autoimmunity pathway process in AD. This will help clear up the confusion and choosing the right targeted therapy, which began with Dupilumab in 2014, especially for patients with moderate to severe AD.

Abstract N°: 70

Clinical course of atopic dermatitis patients in Uzbekistan

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Introduction & Objectives: Atopic dermatitis (AD) is a chronic relapsing inflammatory skin disease that typically occurs in early childhood in individuals with a hereditary predisposition to atopic conditions. AD is characterized by age-specific phases, stages of disease, and morphological lesion features that define its clinical forms.

The pathogenesis of AD remains a topic of debate. Both exogenous (biological, physical, chemical) and endogenous factors (genetic predisposition, immune disorders, gastrointestinal tract issues, nervous system involvement) play a role in the development of the disease.

The clinical polymorphism of AD determines the diversity of its clinical forms, reflecting the staged nature of the process. To evaluate the complex symptomatology and the severity of clinical manifestations of AD, the SCORAD (Severity Scoring of Atopic Dermatitis) index and the POEM (Patient-Oriented Eczema Measure) scale are commonly used.

Objective was to examine the clinical course of AD, considering the SCORAD and POEM indices.

Materials & Methods: The study included 137 AD patients aged 10 to 65 years who received inpatient treatment. Among them, 59 (43.8%) were male, and 78 (56.2%) were female. All patients were diagnosed based on Hanifin & Rajka criteria.

Results:

The duration of the disease was as follows: less than 1 year were 23 patients (16.8%), from 1 to 5 years - 31 patients (22.6%), more than 5 years - 83 patients (60.6%)

A family history of atopy was noted in 65 patients (47.4%), while 72 patients (61%) did not report such a pattern.

Patients were divided into age groups: up to 18 years were 30 patients (21.9%), from 18 to 28 years - 45 patients (32.8%), from 29 to 39 years - 21 patients (15.3%), from 40 to 49 years - 11 patients (8.1%), over 50 years: 30 patients (21.9%)

Patients presented with the following associated conditions: anemia: 49 patients, gastrointestinal tract disorders: 27 patients, protozoan-parasitic infections: 12 patients, nervous system disorders: 14 patients, cardiovascular system disorders: 6 patients, endocrine system disorders: 6 patients, respiratory system conditions (e.g., bronchial asthma, seasonal rhinitis): 17 patients genitourinary system disorders: 12 patients, foot mycoses: 4 patients, combined pathologies were observed in 54 patients.

According to the SCORAD index & POEM Disease Severity were represented:

mild AD: 24 patients (18.8 ± 3.2 points), moderate AD: 46 patients (37.8 ± 3.4 points), severe AD: 25 patients (45.6 ± 3.3 points). The average POEM score was 16.45 ± 1.7 points.

Conclusion:

Our observations indicated a predominance of AD cases in young, working-age individuals (56%). The majority of patients (48%) exhibited a moderately severe course of the disease.

Abstract N°: 71

Janus kinase inhibitor in combination therapy for atopic dermatitis

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Introduction & Objectives:

Atopic dermatitis (AD) is a chronic recurring immuno-inflammatory skin condition characterized by a genotypic impairment in the skin's barrier function as well as innate and adaptive immunity. There is currently no specific therapy for AD, hence there is an ongoing need to find effective pathogenetic therapeutic methods. To date, abrocitinib, a type 1 janus kinase inhibitor, has been registered for the treatment of moderate to severe adult AD.

a comparative assessment of the effectiveness of abrocitinib combined with UVB-311 and abrocitinib monotherapy in the treatment of patients with moderate and severe adult atopic dermatitis. The average follow-up period was 4 months.

Materials & Methods:

the dermatological status and quality of life were assessed in 50 patients with moderate to severe AD who were prone to frequent relapses. The patients were treated at the clinic for skin and venereal diseases. Depending on the therapy, all patients were divided into two groups. The first group consisted of 25 patients receiving abrocitinib combined with UVB 311 phototherapy, at an induction dose of 200 mg/day followed in two weeks by a dose of 100 mg/day. The second group included 25 patients who received monotherpay of abrocitinib. Upon admission to the hospital and after two months of therapy, a comparative assessment of the DLQI and the severity of skin lesions by SCORAD index were performed, an evaluation level of IGE in bloodstream was performed as well.

Results:

after 2 months of therapy, the SCORAD index of the patients in the first and second groups decreased statistically differently (p=0.001) by 2.4 times and 1.6 times, respectively. The DLQI of patients in the first and second groups also decreased by 3.2 times 2.1 times, respectively (p=0.001).

Conclusion:

our results demonstrate the high clinical efficacy of the combined use of abrocitinib in the treatment of patients with atopic dermatitis. Abrocitinib at a dosage of 200 mg/day combined with UVB-311 nm in a short observational time showed higher clinical efficacy compared to monotherapy. The use of abrocitinib in combination therapy of AD significantly reduces the treatment time of patients. However, further studies are needed to assess the safety and efficacy of the drug in AD patients for longer time.

Abstract N°: 77

Efficacy and safety of lebrikizumab is maintained up to 3 years in patients with moderate-to-severe atopic dermatitis: ADvocate1 and ADvocate2 to ADjoin long-term extension trial

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Introduction & Objectives: Patients with moderate-to-severe atopic dermatitis (AD) suffer from flares and itch and require a long-term treatment strategy aimed at achieving disease control. In this regards, long-term data from advanced treatments is of great importance to inform clinical practice. Interleukin-13 (IL-13) is the key cytokine in AD; lebrikizumab (LEB) is a monoclonal antibody that binds with high affinity and slow off-rate to IL-13 thereby blocking its downstream effects with high potency. Here we report longer-term efficacy and safety from the ADjoin long-term extension study (NCT04392154) for up to 152 weeks (W) of continuous LEB treatment.

Materials & Methods: In ADvocate1&2, adults aged ≥18 years and adolescents aged 12-<18 years weighing ≥40 kg were randomized 2:1 to receive LEB 250 mg every 2W (LEBQ2W) monotherapy, with a 500 mg loading dose at baseline and W2, or placebo (PBO). After W16, pts receiving LEBQ2W who met protocol-defined response criteria (Eczema Area and Severity Index 75% improvement [EASI 75] or Investigator Global Assessment [IGA] score of 0/1 with ≥2-point improvement from baseline without rescue medication) were randomized 2:2:1 to receive LEBQ2W, LEB 250 mg every 4W (LEBQ4W), or PBO (LEB withdrawal). Pts who completed W52 of ADvocate1&2 were able to enroll in the ADjoin LTE and received the same treatment regimen as in the maintenance period of ADvocate1&2. Pts randomized to PBO (LEB withdrawal) during W16 to 52 of ADvocate1&2 received LEBQ2W in ADjoin and are not reported here. Intermittent use of topical rescue medications and short-term systemics was permitted in ADjoin.

Response rates are reported as observed, using all collected data regardless of rescue medication use for the LEBQ2W and LEBQ4W treatment arms in ADvocate1&2 and ADjoin. Efficacy was assessed through W100 of ADjoin using IGA 0/1 and EASI 75. Safety is reported from ADjoin enrollment up to the data cutoff of 24 April 2024.

Results: Overall, 291 pts in ADvocate1&2 achieved EASI 75 or IGA 0/1 at W16, were rerandomized, and entered the maintenance period until W52. Of these, 82 (LEBQ2W) and 99 (LEBQ4W) pts entered ADjoin; 76.8% (n=63) and 71.7% (n=71) completed W100 of ADjoin (152W of continuous LEB treatment). Among pts with IGA 0/1 at W16 in the LEBQ2W and LEBQ4W arms, respectively, 81.5% and 83.3% maintained IGA 0/1 at W52 (ADjoin W0) and 82.9% and 84.0% maintained IGA 0/1 at W152 (Figure 1a). Of pts who achieved EASI 75 at W16 of ADvocate1&2 in the LEBQ2W and LEBQ4W arms, respectively, 96.3% and 93.7% maintained EASI 75 at W52 and 90.5% and 94.1% maintained EASI 75 at W152 (Figure 1b). Of pts who achieved EASI 75 at W16 of ADvocate1&2 in the LEBQ2W and LEBQ4W arms, respectively,

80.0% and 81.1% achieved EASI 90 by W52 and 79.4% and 86.8% achieved EASI 90 at W152 (Figure 1c). Throughout ADjoin, 14.6% of pts receiving LEBQ2W and 24.2% receiving LEBQ4W used any rescue therapy. During ADjoin, 126/181 pts who received LEB reported adverse events (AEs), most of which were mild (n=53) or moderate (n=64) in severity (Table 1). Serious AEs were reported by 6 pts, no deaths occurred, and 5 pts had AEs that led to treatment discontinuation.

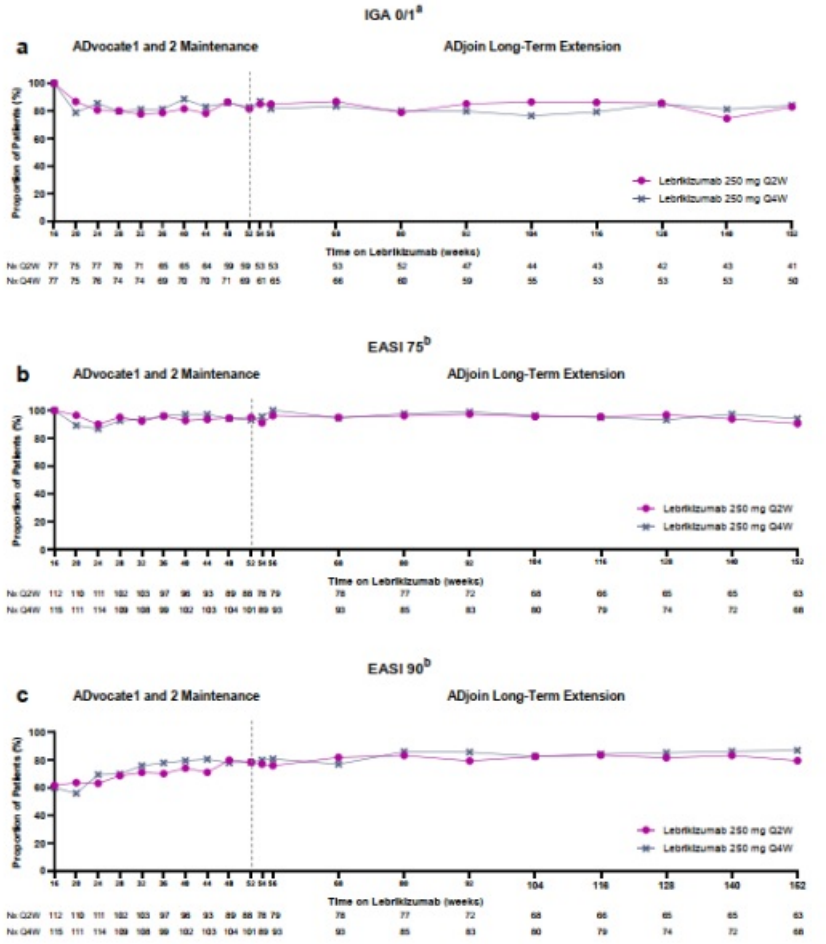
Conclusion: The majority of pts maintained clear or almost clear skin over 152W of continuous LEB treatment in both the LEBQ2W and LEBQ4W arms. The LEB safety profile was consistent with that of previous LEB studies in pts with moderate-to-severe AD.

Table 1. Overview of TEAEs in patients who met week 16 protocol-defined response criteria (IGA 0/1 or EASI 75) during weeks 16–52 of ADvocate1 and 2 and from enrollment in ADjoin for patients in the Q2W and Q4W treatment arms

	ADvocate1 and 2[a]		ADvocate1 and 2 → ADjoin[b]	
Overview of AEs, n (%)	LEB 250 mg Q2W (N=113)	LEB 250 mg Q4W (N=118)	LEB 250 mg Q2W (N=82)	LEB 250 mg Q4W (N=99)
TEAE	56 (49.6)	61 (51.7)	59 (72.0)	67 (67.7)
Mild	35 (31.0)	24 (20.3)	28 (34.1)	25 (25.3)
Moderate	17 (15.0)	31 (26.3)	28 (34.1)	36 (36.4)
Severe	4 (3.5)	6 (5.1)	3 (3.7)	6 (6.1)
SAE	2 (1.8)	2 (1.7)	3 (3.7)	3 (3.0)
Death	0	0	0	0
AEs leading to treatment discontinuation	1 (0.9)	2 (1.7)	2 (2.4)	3 (3.0)
Conjunctivitis cluster[c]	2 (1.8)	12 (10.2)	3 (3.7)	5 (5.1)
Keratitis cluster[d]	1 (0.9)	1 (0.8)	0	1 (1.0)
Infections[e]	23 (20.4)	36 (30.5)	38 (46.3)	45 (45.5)
Herpes infections	3 (2.7)	7 (5.9)	6 (7.3)	3 (3.0)
Skin infections	4 (3.5)	4 (3.4)	1 (1.2)	3 (3.0)
Parasitic infections	0	0	0	0
Potential opportunistic infections[f]	1 (0.9)	1 (0.8)	4 (4.9)	1 (1.0)
Injection site reactions[g]	0	1 (0.8)	1 (1.2)	0
Malignancies	0	0	0	0
Anaphylactic reactions	0	0	0	0
Eosinophilia[h]	0	0	1 (1.2)	1 (1.0)

[a]Pooled ADvocate1 and ADvocate2 modified safety population from week 16 through week 52 among patients who met week 16 protocol-defined response criteria (IGA 0/1 or EASI 75).
[b]Modified safety population from week 0 of ADjoin through to the data cutoff of 24 April 2024.
[c]Conjunctivitis cluster includes MedDRA PTs of conjunctivitis, conjunctivitis allergic, conjunctivitis bacterial, conjunctivitis viral, and giant papillary conjunctivitis.
[d]Keratitis cluster includes MedDRA PTs of keratitis, atopic keratoconjunctivitis, allergic keratitis, ulcerative keratitis, and vernal keratoconjunctivitis.
[e]Infections are defined using the MedDRA PTs from the Infections and Infestations system organ class.
[f]All potential opportunistic infections were assessed as not opportunistic based on the Winthrop et al (*Ann Rheum Disease*, 2015;74:2107-2116) criteria.
[g]Injection site reactions are defined using the MedDRA high level term of Injection site reactions excluding joint-related PTs.
[h]Eosinophilia is defined as MedDRA PTs of eosinophilia and allergic eosinophilia plus the following PTs under the high-level term of white blood cell analysis: eosinophil count abnormal, eosinophil count increased, and eosinophil percentage increased. No eosinophilic-related disorders were reported.
AE, adverse event; EASI, Eczema Area and Severity Index; IGA, Investigator Global Assessment; LEB, lebrikizumab; MedDRA, Medical Dictionary for Regulatory Activities; N, number of patients in the analysis population; n, number of patients in the specified category; PT, preferred term; Q2W, every 2 weeks; Q4W, every 4 weeks; SAE, serious adverse event; TEAE, treatment-emergent adverse event.

Figure 1. Efficacy outcomes in patients receiving lebrikizumab Q2W or Q4W through 152 weeks



[a]In patients with IGA 0/1 at week 16 of parent study.
[b]In patients with EASI 75 at week 16 of parent study.
EASI, Eczema Area and Severity Index; IGA, Investigator Global Assessment; Nx, number of patients with non-missing values; Q2W, every 2 weeks; Q4W, every 4 weeks.

Abstract N°: 271

Impact of an Emollient Containing Nicotinamide on Moderate Atopic Eczema and Quality of Life in Paediatric Patients

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Introduction & Objectives: This study examines the efficacy of an emollient with an ancillary anti-inflammatory substance, nicotinamide, in improving eczema symptoms and associated quality of life, using SCORAD and CDLQI as key measures.

Materials & Methods: This prospective, open-label study was conducted in 11 NHS GP centres across the UK, involving 60 screened children aged 1 to 15 years with moderate atopic eczema. The product was applied over 4 weeks, with evaluations at baseline, 2 weeks, and 4 weeks.

Results: Significant improvements in total SCORAD scores were observed (p<0.0001). For the per-protocol population (n=41), mean total SCORAD decreased by 14.45 (n=40) at week 2 and by 18.67 (n=41) at week 4.

The CDLQI responses, for questions with initial baseline "Very much/quite a lot" responses over 10%, in the per-protocol population were:

How itchy, scratchy, sore or painful has your skin been?: "Very much/quite a lot" responses reduced from 80% at baseline to 22% at week 4, "not at all" responses increased from 0% to 24%.

How embarrassed or self-conscious, upset or sad have you been because of your skin? "Very much/quite a lot" responses reduced from 15% at baseline to 5% at week 4, with "not at all" responses increasing from 49% to 83%.

How much have you changed or worn different or special clothes/shoes because of your skin?: "Very much/quite a lot" responses decreased from 39% at baseline to 2% at week 4, with "not at all" responses rising from 32% to 59%.

How much have you avoided swimming or other sports because of your skin trouble?: "Very much/quite a lot" responses reduced from 24% at baseline to 7% at week 4; "not at all" responses increased from 44% to 73%.

If school time, how much did your skin problem affect your school work? If holiday time, has your skin problem interfered with your enjoyment of the holiday?: Combined responses for the two question options, "Very much/quite a lot" responses reduced from 22% at baseline to 5% at week 4; "not at all" responses increased from 32% to 59%.

How much has your sleep been affected by your skin problem?: "Very much/quite a lot" responses reduced from 44% at baseline to 5% at week 4; "not at all" responses increased from 22% to 51%.

How much of a problem has the treatment for your skin been?: "Very much/quite a lot" responses reduced from 39% at baseline to 10% at week 4; "not at all" responses increased from 22% to 61%.

Conclusion: The tested emollient containing nicotinamide, significantly reduced eczema severity and improved quality of life in paediatric patients over 4 weeks. These results highlight its potential as an effective treatment option for moderate atopic eczema, improving both clinical symptoms and quality of life outcomes in NHS GP settings.

Abstract N°: 281

Evaluation of an Emollient with Nicotinamide in Managing Moderate Atopic Eczema in Paediatric Patients: A Real-World GP Study

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Introduction & Objectives: Moderate atopic eczema is characterised by recurrent inflammation and itching, presenting substantial challenges in management. An emollient with an ancillary anti-inflammatory substance, nicotinamide, offers an alternative therapeutic option to conventional emollients and corticosteroids. This study evaluates its efficacy in real-world clinical settings.

Materials & Methods: A prospective, open-label study was conducted across 11 UK GP centres, involving 60 screened children (aged 1 to 15 years) diagnosed with moderate atopic eczema. Patients applied the emollient for 4 weeks, with SCORAD assessments used as the primary efficacy measure. Changes in total SCORAD scores, including individual symptom components, were assessed at baseline, 2 weeks, and 4 weeks after treatment.

Results: Significant improvements in mean SCORAD scores were observed at both 2 and 4 weeks ($p<0.0001$), and across all age groups. Improvements were also noted in individual SCORAD components. The number of clinical signs rated as moderate or severe (redness, swelling, dryness, oozing/crusting, lichenification, and excoriation) decreased after 4 weeks. Formal statistical analysis was undertaken for redness, dryness and swelling. Statistical significances were observed for all three; redness ($p=0.0030$), swelling ($p=0.0007$) and dryness ($p<0.0001$). Additionally, reductions in subjective symptoms of itch and sleeplessness were recorded, with a mean improvement of 3.0 (52.4%) in itch scores and 2.3 (37.8%) in sleeplessness scores over 4 weeks. Related adverse events were reported, including stinging, itching, erythema, and occasional worsening of eczema symptoms, which are expected reactions with any emollient.

Conclusion: The emollient containing nicotinamide demonstrated significant improvements in total SCORAD scores with a reduction in individual symptom severity (redness, swelling, dryness, itch, and sleeplessness), and reductions in the percentage of skin areas affected. These findings support its role as an effective treatment option for paediatric moderate atopic eczema and may help reduce reliance on topical corticosteroids in primary and secondary care settings.

Abstract N°: 349

Atopic dermatitis and sleep disorders

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Introduction & Objectives:

Atopic dermatitis is a chronic, recurrent, and pruritic skin condition that begins within the first five years of life in 90 % patients. Beyond its cutaneous manifestations, atopic dermatitis is associated with various comorbidities, among which sleep disorders hold a significant place. The relationship between atopic dermatitis and sleep disturbances has been demonstrated in numerous studies but has not yet been fully elucidated.

The aim of our study was to analyze the impact of atopic dermatitis on patients' sleep quality.

Materials & Methods:

This cross-sectional study was conducted over six months and included 120 patients with atopic dermatitis, recruited from dermatology consultations. Participants completed a structured questionnaire that collected clinical data, including age, sex, type and duration of atopic dermatitis, intensity of pruritus and pain, as well as an assessment of sleep quality using the Pittsburgh Sleep Quality Index. Statistical analysis was performed to determine correlations between clinical parameters and sleep disturbances.

Results:

A total of 120 patients participated in the study, of whom 65% were women. The mean age of participants was 28.4 ± 10.2 years, with a mean disease duration of 6.3 ± 4.1 years. Moderate to severe forms of atopic dermatitis accounted for 75% of cases, and 85% of patients reported moderate to severe pruritus (Visual Analog Scale ≥ 5).

Regarding sleep, 72% of patients had a PSQI score ≥ 5, indicating poor overall sleep quality. The most common disturbances were nocturnal awakenings (60%), followed by difficulties falling asleep (40%) and persistent morning fatigue (35%).

Among the clinical factors studied, a significant correlation was found between nocturnal pruritus and impaired sleep quality ($r = 0.62$; $p < 0.001$). Similarly, skin pain was associated with frequent awakenings ($r = 0.48$; $p = 0.002$). Finally, a comparative analysis revealed that women more frequently reported initial insomnia ($p = 0.03$), while men were more prone to early awakenings.

Conclusion:

Improving the management of sleep disorders in AD patients requires a multidisciplinary approach involving dermatologists, allergists, and sleep specialists. Special attention should be given to high-risk patients, particularly those with severe pruritus or psychiatric comorbidities.

Abstract N°: 356

Atopic dermatitis successfully treated with lebrikizumab in clinical practice

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Introduction: Atopic dermatitis (AD) is a chronic inflammatory skin disease associated with impaired quality of life and a substantial burden of disease. Lebrikizumab (LEB) is a monoclonal antibody that selectively binds with high affinity to interleukin (IL)-13, thereby blocking its downstream effects with high potency. LEB has demonstrated efficacy and safety in adults and adolescents ≥ 12 years with moderate-to-severe AD in randomized, placebo-controlled, phase 3 clinical trials.

Results: We report four cases of AD treated with LEB in clinical practice in Czech Republic. The first case is a 24-year-old woman, who presented AD from 4 weeks of age and multiple atopic comorbidities (severe bronchial asthma, polyvalent allergies and allergic rhinoconjunctivitis). In January 2024, the patient presented erythema on all extremities, generalized skin xerosis and oozing and she received the following treatments: cyclosporine 150 mg/day + amoxicillin/clavulanic acid, methylprednisolone 125 mg, levocetirizine, topical therapy, zolpidem, and prednisone. In September 2024, the patient started the treatment with LEB 250 mg + levocetirizine + topical therapy. Before the treatment, the following scores were reported: Eczema Area and Severity Index (EASI) 23.0, Dermatology Life Quality Index (DLQI) 19.0, and peak pruritus NRS score of 9.0; with an involvement of 80% BSA. After 16 weeks of LEB treatment, EASI score was 3.0, DLQI 2.0, POEM 2.0 and peak pruritus NRS 1.0; 5% BSA and the patient additionally reported an improvement in her dyspnoea, rhinitis and sleep. The second case is a 60-year-old woman, who presented AD since 1984 in combination with dermorespiratory syndrome. Prior treatments included dupilumab, baricitinib 4 mg/day, upadacitinib 30 mg/day (discontinued due to pulmonary embolism), and azathioprine 100 mg/day (discontinued due to ineffectiveness). In September 2024, the patient started treatment with LEB. Before the treatment, the following scores were observed: EASI 24.3, DLQI 18.0, sleep NRS 8.0, and peak pruritus NRS 8.0; with an involvement of 22% BSA. After only 12 weeks of LEB treatment the patient showed 100% improvement in all scores. The third case is a 24-year-old man, who presented AD since childhood with a mild form of bronchial asthma. Prior treatments included external combined treatments (emollients, corticosteroids and antibiotics) and cyclosporine. In September 2024, he started treatment with LEB. Before the treatment, the following scores were observed: EASI 36.8, DLQI 17.0, and peak pruritus NRS 8.0; involvement of 90% BSA. After 16 weeks of treatment, EASI was 4.4, DLQI 2.0, and peak pruritus NRS 1.0; 10% BSA. The fourth case is a 45-year-old woman, who was treated for her severe AD since 2019 and had to stop her prior treatments including baricitinib, cyclosporine, and upadacitinib due to lack of efficacy. In September 2024, she started treatment with LEB. Before the treatment, the following scores were reported: EASI 28.1, DLQI 24.0, and peak pruritus NRS 10.0; involvement of 70% BSA. After 16 weeks of treatment the patient showed significant improvements (EASI 2.4, DLQI 3.0, peak pruritus NRS 2.0; 15% BSA), including improvement of facial erythema.

Conclusions: These 4 clinical cases report similar effectiveness to the randomised clinical trials and therefore LEB may be an effective treatment for moderate-severe AD, even in comorbid patients and patients who have failed previous modern therapeutic agents.

Abstract N°: 437

Correlation Between Spontaneous Menorrhagia and Severe Atopic Dermatitis: Case report.

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Introduction & Objectives:

An important role in the pathogenesis of atopic dermatitis (AD) is played by type 2 inflammation, which is mediated by interleukin (IL)-4 and IL-13 [Kim K. et al. 2022]. In some studies, it is considered that proliferation of endometriotic stromal cells is also induced by locally produced IL-4 [OuYang Z., et al. 2008]. Thus, increasing recent evidence implicates disturbances of immune cells and their cytokine mediators in contributing to symptoms of abnormal uterine bleeding [Berbic M., et al. 2014].

Materials & Methods:

A case report.

Results:

A 22-year-old female patient complained of a generalized skin rash and severe pruritus (VAS 9). The patient had a medical history of AD, which was treated with topical steroids till 2022. It was also known that the patient had alopecia totalis five years before. Prick tests were negative. However, patch tests revealed a positive contact allergy to potassium dichromate and mercaptophenzidazole. Skin examination revealed severe lichenification of the neck folds, axial, and popliteal regions. Multiple red patches and combined macules were seen on the trunk, brachii, and thighs. Multiple excoriations and erosions were found. The patient's SCORAD was 52.4 and DLQI - 26. Subsequent laboratory examinations and chest X-ray were conducted, and the patient was treated with topical glucocorticosteroids and systemic cyclosporine 300 mg (4.28 mg/kg). This treatment was continued for approximately six months, resulting in a modest improvement in the patient's skin condition, as evidenced by a decrease in SCORAD to 31.8 and DLQI to 12. However, the patient experienced a recurrence of frontal head pain approximately one hour after the administration of cyclosporine, leading to the discontinuation of this medication. A multidisciplinary team decided to initiate the treatment with dupilumab. The patient's skin lesions had improved and exhibited clear skin. However, the patient reported experiencing dysmenorrhea and menorrhagia, indicating a disruption in her menstrual cycle. Consequently, a gynecologist was consulted to investigate the underlying cause of the bleeding. Ultrasound of the uterus revealed an atypical phase of the endometrium and diagnostic hysteroscopy was performed, resulting in a biopsy. Histological analysis revealed proliferation with atypia. The correlation of these symptoms with the initiation of dupilumab was established, and the results of several laboratory tests of female hormones and other endocrinological pathology were excluded. Given the initiation of the novel pharmaceutical agent, a discussion was held with the patient regarding the administration of the JAK inhibitor baricitinib at a dosage of 4 mg/day. After several months, bleeding from the genitalia ceased, alopecia started regressing and the patient reported none of adverse reactions.

Conclusion:

The present case demonstrates, following the discontinuation of dupilumab, the patient's symptoms and bleeding from the uterus regressed. In the literature, there are some cases of diffuse alveolar hemorrhage in patients with dupilumab [Tomoki T., et al. 2024]. However, the complete correlation between dupilumab and spontaneous metrorrhagia remains unknown and further case reports or clinical trials are necessary to comprehensively ascertain the impact of the IL-4 inhibitor on female hormones and the menstrual cycle.

Abstract N°: 630

Emotional hypersensitivity and atopic eczema: When Emotions Overtake the Skin

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Introduction & Objectives:

Atopic eczema, a chronic dermatological disease, is influenced by emotional factors such as stress and emotional hypersensitivity (EHS). These intense emotions can trigger or exacerbate symptoms. The importance of psychologically integrated management is emphasized by the significant impact of EHS on patients' quality of life and well-being.

Materials & Methods:

An innovative questionnaire, the Q-EHS, was developed to assess EHS. The aim of this study was to characterize the interactions between HES and atopic eczema, to assess differences according to gender and disease severity, and to suggest appropriate interventions. The risk of depression was assessed using the WHO questionnaire. Multivariate linear regression was performed to assess the relationship between HES-Q and the explanatory variables age, severity as assessed by POEM, depressive risk, regular thinking about eczema, level of knowledge about the disease.

Results:

1201 French patients (758 females (63.11%), 443 males [36.8%]) with medically confirmed atopic eczema. There was no gender difference in severity (mild: 804, [66.7%] moderate/severe: 397). A significantly higher percentage of women (39.71%) are at risk for depression than men (30.54%), with a statistically significant difference (p = 0.002). Women experienced very intense emotions, much more often than men (13.98% vs. 4.51%); 19.66% of women admitted to "feeling other people's emotions as their own" vs. 4.71% of men. 31.27% of women (vs. 15.31% of men - P-value: 0.001) say they are "very sensitive, with a high impact" in situations of pressure or uncertainty. Vigilant and constantly on the alert, 32.19% of women are often preoccupied by potential dangers (vs. 18.28% of men - P value: 0.001). Nearly one in four atopic women report being highly affected by criticism, with significant mood swings (19.13% vs. 6.77% of men - P value: 0.001). To escape intense emotional stimuli, 59.5% of women (vs. 43.79% of men, P-value: 0.001) feel the need for solitude; moreover, 60.48% of atopic women admit to ruminating often or very often, with an impact on their daily life (vs. 42% of men, P-value: 0.001).

In multivariate analysis: Thinking about it often (β= 1.67, [1.07; 2.28], p <0.0001), Being a woman (β=2. 35, [1.8; 2.9], p <0.0001), depressive risk (β=3.72, [3.15; 4.29], p <0.0001) were associated with higher HES-Q scores. Severity (β=- =0.04, [-0.54 ; 0.63], p= 0.8881) or age (β=0.0, [-0.02; 0.02], p= 0.719) were not associated with HES-Q score.

Conclusion:

This study highlights the cross-sectional influence of HES in patients with atopic eczema. The lack of a significant correlation between clinical severity and HES scores underlines the predominant role of emotional and psychosocial factors. Women appear to be particularly vulnerable to the dimensions of HSE, requiring specific management strategies, including stress management tools, rumination reduction and social support.

Q-HSE is proving to be an essential tool for better understanding and managing HSE in atopic patients. It highlights specific psychosocial needs that, when addressed, can improve quality of life and alleviate disease symptoms.

Abstract N°: 681

Antipruritic effect of Azathioprine in Atopic Dermatitis. A case report.

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Antipruritic effect of Azathioprine in Atopic Dermatitis. A case report.

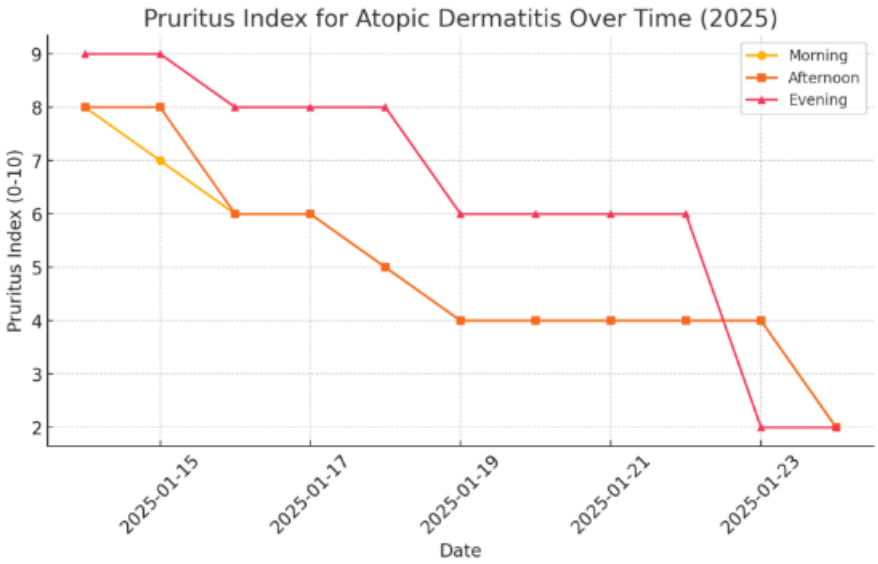
Introduction & Objectives: Atopic dermatitis (AD) is a chronic inflammatory skin disease characterized by genetic predisposition, impaired epidermal barrier function, and immune dysregulation. It affects 15-20% of children and up to 10% of adults, with 80% of cases presenting during infancy. Due to persistent pruritus, moderate to severe cases significantly impact the quality of life.

The management of AD requires a multifaceted approach, including basic skin care, topical treatments, and systemic therapies such as cyclosporine A, methotrexate, and azathioprine. While azathioprine is frequently used, its efficacy in addressing AD-associated pruritus requires further investigation.

This study utilizes the Prurindex (PI) score as a diagnostic measure to explore the dynamics of pruritus in AD patients undergoing azathioprine treatment.

Materials & Methods: An 18-year-old male patient, diagnosed with atopic dermatitis and experiencing symptoms for over 17 years, was included in this study. Diagnostic evaluations included PI scores (0-10) recorded at different times of the day, comprehensive blood analyses including complete blood count (CBC) and biochemical assessments, and immunological testing for total IgE. The patient was treated with azathioprine (50 mg twice daily for 10 days) while undergoing continuous monitoring of PI scores in the morning, afternoon, and evening.

Results: During the 10-day treatment period, there was a notable reduction in pruritus severity, as indicated by the PI scores. The morning PI score declined from 8 to 2, reflecting a 75% reduction, while the afternoon and evening scores similarly dropped from 8 to 2 (75%) and 9 to 2 (77.8%), respectively. The most significant improvement occurred in the evening, suggesting that treatment timing may be a critical factor in optimizing symptom relief. A steady decrease in symptoms was observed starting January 18, reaching peak improvement by January 23-24. Additionally, total IgE levels dropped substantially from 215.62 IU/mL to 19 IU/mL, highlighting azathioprine’s immunomodulatory potential.



Conclusion: Azathioprine can rapidly and significantly relieve pruritus symptoms and significantly reduce IgE levels, indicating its effectiveness in treating immune-related pruritus. This result supports azathioprine as a potential effective option for treating immune-mediated pruritus, but it still needs to be combined with individual patient conditions and regular monitoring to optimize the treatment effect.

Abstract N°: 695

Prevalence and Associated Factors of Topical Corticosteroid Phobia among Caregivers of Children with Atopic Dermatitis: A Multicenter Cross-sectional Study

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Introduction & Objectives:

Topical corticosteroid (TCS) use is a mainstay in the management of atopic dermatitis (AD); however, topical corticosteroid phobia (TCP) among caregivers can lead to low adherence, affecting disease control and quality of life in pediatric AD. This stidy aimed to determine the prevalence of TCP and identify factors associated with TCP among caregivers of children with AD in Vietnam.

Materials & Methods:

This cross-sectional study was conducted across four major hospitals in Ho Chi Minh City and included 260 caregivers of pediatric patients with AD. Participants completed a Vietnamese-adapted visual analog scale and a TCP questionnaire assessing fears related to the efficacy, safety, compliance, and quality of life effects of TCS.

Results:

There was a high prevalence of TCP, with 92.3% of caregivers reporting some level of fear, which was classified as mild (32.3%), moderate (27.7%), high (23.5%), or extreme (8.8%). Increased TCP was significantly associated with caregivers employed in healthcare, frequent information seeking, younger children, and higher AD severity ($p<0.05$).

Conclusion:

TCP is widespread among caregivers of children with AD and is linked to caregiver and child characteristics. Targeted educational interventions addressing TCP may improve adherence to and the clinical outcomes of pediatric AD management.

Abstract N°: 845

Eczema Herpeticum in a Child with Atopic Dermatitis: A Rare but Life-Threatening Complication

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Introduction & Objectives:

Eczema herpeticum is a severe skin infection caused by herpes simplex virus type 1 or 2 (HSV-1/2), primarily affecting individuals with atopic dermatitis, who appear to have reduced immunity to herpes infections. It manifests as vesicles and erosions with hemorrhagic crusts over eczematous areas, often accompanied by systemic symptoms such as fever, lymphadenopathy, and malaise. This condition typically results from HSV-1 superinfection due to compromised skin barriers in atopic dermatitis, though HSV reactivation may also contribute.

Materials & Methods:

We report the case of a 10-year-old female who presented with a widespread, intensely pruritic eruption of monomorphic, dome-shaped, grouped 2–3 mm vesicles on an erythematous base, along with "punched-out" erosions covered with hemorrhagic crusts, evolving over one week. The patient exhibited generalized malaise, grade 1 obesity, a history of nonspecific prurigo, and atopic status. Laboratory findings revealed elevated total IgE (1886 IU/mL; N < 100 IU/mL) and positive HSV-1 IgM and IgG serology. Bacteriological examination identified Staphylococcus aureus in the skin lesions.

The differential diagnosis included impetigo, eczema coxsackium, primary varicella, disseminated herpes zoster, widespread molluscum contagiosum, acute generalized exanthematous pustulosis, dermatitis herpetiformis, cellulitis, and erysipelas.

Two punch biopsies were performed: one from an erosion with a hemorrhagic crust and another from the unaffected skin of the posterior left thigh, for histopathological evaluation and direct immunofluorescence.

Results:

Histological analysis identified multinucleated giant cells with intranuclear inclusion bodies (Cowdry type A) within the epidermis. The epidermis showed ballooning degeneration of keratinocytes and intraepidermal vesicle formation, while the dermis exhibited a perivascular lymphocytic and eosinophilic infiltrate. Direct immunofluorescence did not reveal immunoreactant deposition within the epidermis or at the dermo-epidermal junction.

Treatment included 1 gram of Acyclovir, divided into five daily doses for five days, followed by 200 mg/day for an additional 14 days. Oral corticosteroids were administered, along with topical emollients, dermatocorticoids for atopic dermatitis, and fusidic acid for secondary bacterial infection. The patient showed significant improvement, with lesion resolution.

Conclusion:

This case highlights a rare yet potentially fatal complication of atopic dermatitis, with a mortality risk arising from systemic viremia, bacteremia, and fungal infection, potentially leading to multiorgan failure. With the widespread use of systemic antiviral therapy, mortality rates have significantly declined. Early recognition and prompt intervention are crucial to preventing severe complications and ensuring favorable patient outcomes.

Abstract N°: 975

Povidone-iodine induced post-surgical irritant contact dermatitis localized outside of the surgical incision area: Case report

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Introduction & Objectives: Polyvinylpyrrolidone-iodine (PVP-I), also known as povidone-iodine, is one of the most widely used antiseptics in surgery and is a key adjunct in preventing post-operative wound complications. However, in rare cases, the use of PVP-I can lead to wound issues, including allergic contact dermatitis. Our objective through this case report is to highlight the potential for hypersensitivity reactions to PVP-I even in patients without a known history of allergies.

Materials & Methods: We present a case of allergic contact dermatitis caused by povidone-iodine in a 51-year-old patient.

Results: The patient presented with an erythematous, warm, and pruritic plaque on the left lower limb. Three days earlier, he had undergone total prosthesis of the contralateral limb, and 10% povidone-iodine solution (Betadine) had been applied under a cotton bandage. patch test confirmed povidone-iodine as the causative agent. The patient improved with systemic antihistamines and topical corticosteroids.

Conclusion: Although PVP-I has the least irritant and allergic potential among available antiseptics, incidents of hypersensitivity reactions to it are sporadically reported and remain largely under-evaluated. There are no standard preoperative tests to screen for allergies in patients without an allergy history. We therefore recommend a simple patch test with PVP-I to screen all patients prior to elective surgery, preventing dermatological complications and reducing morbidity.

Abstract N°: 979

Delgocitinib cream formulation development for Chronic Hand Eczema (CHE): insights from patient preference and skin penetration studies

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Introduction & Objectives:

Chronic Hand Eczema (CHE) is an inflammatory skin disease associated with significant physical and psychosocial burdens and limited approved treatment options. Delgocitinib cream 20 mg/g (2%) is a non-steroidal topical pan-Janus kinase (JAK) inhibitor formulated for application on hands and does not contain parabens, perfumes, or penetration enhancers. It was well tolerated with minimal systemic exposure and has demonstrated efficacy versus cream vehicle in adults with moderate to severe CHE in DELTA 1 (NCT04871711) and DELTA 2 (NCT04872101). To support the initial development of the delgocitinib cream formulation, two studies assessed (1) patients' preference for formulation and (2) delgocitinib skin penetration.

Materials & Methods:

The Patient Preference Market Research Study (PPMRS) was conducted as 'Hall test-style' group sessions with patients with CHE, in which five early formulation options (no active substance) were tested simultaneously (3 light creams, 1 lipid cream, and 1 ointment). Formulation characteristics of consistency/feel, application, and appearance were tested.

Skin penetration was assessed in an *in vivo* dermal Open Flow Microperfusion study (OFM) in pigs. Four probes at each of two application sites were inserted within the dermis of two pigs. A single dose of delgocitinib cream formulation was applied to the skin surface (10 mg/cm2) of the application sites and OFM samples were collected in 3-hour intervals for 12 hours.

Results:

In the PPMRS, 74 adults with CHE were included, of those 54% were female and 79% were 18-54 years. Overall, 49% of the patients had been diagnosed with CHE for ≥15 years (23% for 10-14 years), with 77% reporting CHE impacted their lives to a "moderate" or "very large" extent. The treatment features being considered most important by patients were quick absorption (58%), not being sticky (43%), and not being greasy (42%). One of the light cream samples performed the best according to perception of consistency/feel (62%), application (77%), and appearance (69%), and was the most preferred product overall among the 5 samples. Based on these results, this formulation was selected to further guide development of delgocitinib cream. Demographic factors, e.g., age, disease history, spot/whole hand application, and impact on quality of life, did not influence product preference.

In the OFM, it was shown that delgocitinib distributed into the dermis. The mean (standard deviation) OFM concentration based on the area under the curve (AUC) over the 12 hours sampling time was 121 (102) nM.

Conclusion:

Delgocitinib cream is well-suited to patients with CHE, as it was developed based on preferences of patients with CHE and was shown to deliver the active substance to the site of inflammation within the dermis. The cream was developed without skin penetration enhancers which may contribute to the negligible systemic exposure seen in later clinical delgocitinib studies.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1049

Treatment of oral dermatitis: a comprehensive method of reducing the impact of various pathogenetic and trigger factors on facial skin in wartime conditions.

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Introduction & Objectives: The importance of studying the effectiveness of oral dermatitis therapy is determined by the growing prevalence of this dermatosis and difficulties in its treatment. This problem becomes especially urgent under conditions of emergency or war, when the possibility of providing medical care to patients in the usual way disappears, moreover, routine skin care becomes impossible or significantly complicated. The principle of facial skin care includes several mandatory stages: adequate but not aggressive cleansing, moisturizing, nutrition, and protection. Emollients are considered a background medical technology for oral dermatitis, used in most clinical patients, and combined with various types of local and systemic therapy. Our objective was to study the clinical effectiveness, safety, and tolerability of the complex therapy of oral dermatitis, with elements of the application of methods that are widely used in the practice of cosmetologists.

Materials & Methods: For three months, 32 patients with oral dermatitis of moderate severity, aged 18 to 40, were under our clinical observation. Along with pimecrolimus application 2 times per day for one month therapy, daily after washing facial area (if the patient had access to warm water) to maintain optimal hydration on the skin of the face, and oral irritated location in particular, soothing cream with restorative, softening, antipruritic, antibacterial and cooling components was applied. It contained substances that help restore the skin: Omega-6 fatty acids (evening primrose oil and grape seed oil), soothing licochalcone A (licorice root extract), decanediol with antibacterial action, and Menthoxypropanediol with a cooling effect. The medicine was also used before going down to the shelter or directly while in the shelter to protect sensitive areas of the skin from hypothermia and irritation.

Results: After 20 procedures, 24 out of 32 patients experienced decreased hyperemia, swelling, and itching in the places of rashes. On the 21st day of treatment, we observed a significant clinical improvement in 29 patients, objectively - the skin was moisturized, itching and redness were absent. After the end of the main therapy, within 2 months of using the cream in the prescribed regimen, no significant exacerbations of oral dermatitis were observed in the patients.

Conclusion: The use of this soothing cream significantly improves the condition of the skin and can be recommended for the treatment of patients with atopic dermatitis, primarily in a short-term stabilizing regimen along with the appointment of topical pimecrolimus application, as well as in a supportive regimen with a long-term application after achieving remission.

Abstract N°: 1062

Variability of several proinflammatory genes and atopic dermatitis phenotypes in Czech adult AD patients

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Introduction & Objectives:

The etiopathogenesis of atopic dermatitis is complex, involving elements of barrier dysfunction, alterations in cell mediated immune responses, IgE mediated hypersensitivity, and environmental factors. Loss of function mutations in filaggrin as well as other genetic changes have also been identified which may alter the skin's barrier function, resulting in an atopic dermatitis phenotype. In a pilot study, several polymorphisms in five proinflammatory were associated with some phenotypes of the AD patients (genotype-phenotype study).

Materials & Methods:

In total, 89 unrelated AD Czech (Caucasian) patients were genotyped in the five proinflammatory genes polymorphisms (ATG M235T , ATG G-6A, TNF alpha +A238G, TNF beta Fok1, Il-6 C-174G and IL-6 A-596G). Genotyping was performed using PCR and restriction analysis. As phenotypes, sex, age and characteristics of personal and family history of atopy, aero and food allergies and other complex diseases were evaluated.

Results:

No association with any AD phenotype for angiotensinogen gene polymorphisms were observed. For TNF beta Fok1 polymorphism, a significant difference was observed in the allelic frequencies between patients with and without food allergy [OR for minor - B1- allele was 2.08, 95% confidential interval (CI) 1.09-3.96, P=0.02, sensitivity 0.438, specificity 0.728, power test 0.573]. On the opposite, the B2 allele was associated with aeroallergy (OR 2.5, 95% CI 0.20-5.21, P=0.02, sensitivity 0.714, specificity 0.500, power test 0.573). Allela G of IL-6-174 polymorphisms as well as the G allele of IL-6 -596 polymorphisms were associated with family history of thyreopathy (OR 2.97, 95% CI 1.15-7.71), P = 0.02, sensitivity 0.60, specificity 0.665, power test 0.525 and OR 3.48, 95% CI 1.31-9.22, P=0.01, sensitivity 0.65, specificity 0.652, power test 0.657, respectively). The difference between AD patients with and without thyreopathy is significant even when double genotype of both IL-6 polymorphisms is associated (P=0.01).

Conclusion:

Detection of some genotype/ alleles in proinflammatory genes in adult persons with atopic dermatitis seems to be a promising way for finding of other proinflammatory clinically valid gene biomarkers for the disease.

Abstract N°: 1101

Peripheral blood eosinophilia during the treatment of atopic dermatitis (AD) with dupilumab – an analysis of 39 patients

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Introduction & Objectives:

Dupilumab is a human monoclonal antibody that inhibits IL-4 and IL-13 signaling. This drug is highly effective in the treatment of bronchial asthma and atopic dermatitis (AD). Dupilumab may cause a transient increase in peripheral blood eosinophils (Eo) by blocking their migration into tissues. This phenomenon has been observed mainly in patients treated with dupilumab for severe bronchial asthma. It is also observed during the treatment of AD. An increase in the number of peripheral blood eosinophils may be a potential component of the pathomechanism of eosinophilic organ inflammation and systemic vasculitis.

Materials & Methods:

The data of 39 patients aged 6 to 66 years treated with dupilumab as a part of the Polish National Health Fund drug program for AD treatment from March 2023 to September 2024 were retrospectively analyzed. Eosinophil counts were assessed at baseline and at weeks 4, 8, 12, 16, 20, 24 and 28 of treatment. Eosinophilia was defined as eosinophil count ≥ 500 cells/µL and severe eosinophilia as Eo > 5000 cells/µL.

Results:

The study included 39 patients with severe AD treated with dupilumab. The mean age of the patients was 23.6 years (±14.7), with adults accounting for slightly more than 50% of the study group (N=20). The baseline mean total eosinophil count was 600 cells/µL (±520) and 800 cells/µL (±830) at the end of the observation period. During treatment, the highest mean eosinophil count was observed at 1000 cells/µL (±1370) during the eighth week of therapy. Eosinophilia was present in 46.15% of patients prior to initiation of treatment, and 50.00% of patients were present at subsequent checkpoints; 48,39%; 56,25%; 43,75%; 50,00%; 47.06% and 37.50% showing a downward trend. During the entire follow-up period, severe eosinophilia (6300 cells/µL) occurred transiently in one patient without systemic symptoms at only one checkpoint.

Conclusion:

During treatment of severe AD with dupilumab, an increase in the number of peripheral blood eosinophils is observed, as in patients treated for asthma. Due to its potential consequences, this phenomenon should be the subject of further research in the long term observation.

Abstract N°: 1114

"Investigating the Impact of Filaggrinol on Enhancing Skin Barrier Function in Atopic Dermatitis Patients"

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Introduction & Objectives: Atopic dermatitis (AD) is a multifactorial, genetically determined inflammatory skin condition characterized by intense pruritus, chronic relapsing course, and age-specific features in localization and morphology of lesions. It affects approximately 20% of children and 2-3% of adults, highlighting its significance in public health. Mutations in the FLG gene, which encodes the structural protein filaggrin, are the primary risk factor for the development of atopic dermatitis. This study aims to evaluate the clinical effectiveness of the filaggrinol containing emollient in improving skin barrier function and to investigate its impact on the expression of filaggrin in keratinocytes.

Materials & Methods: Tape stripping (TS) technique will be used to obtain keratinocytes from the stratum corneum. The study will include 60 patients with mild to moderate AD who are receiving standard therapy with moisturizing emollients and topical corticosteroids. A comparative group will be established, matched for gender, age, and diagnosis, using standard treatment with a vehicle cream. Clinical outcomes will be assessed using the Patient-Oriented Eczema Measure (POEM), Eczema Area and Severity Index (EASI), Elman Scale, and Skindex. We will analyze the expression of filaggrin in keratinocytes collected from the third strip at baseline and after 4 weeks of treatment, followed by immunohistochemical analysis.

Results: We anticipate that applying the filaggrinol-containing emollient will lead to an increase in the expression of endogenous filaggrin in the treated keratinocytes compared to baseline levels, as measured by immunohistochemical analysis. Clinical outcomes will be evaluated to determine improvements in pruritus and overall skin condition.

Conclusion: Investigating new emollients containing filaggrinol could represent a promising therapeutic strategy for managing atopic dermatitis. This study is particularly significant as it seeks to clarify whether the expression of filaggrin truly increases with therapy, thereby contributing to personalized dermatological care and improving the quality of life for patients.

Abstract N°: 1218

Evaluation of the effect of botulinum toxin injection in aggravating or improving seborrheic dermatitis symptoms: A prospective, single-arm clinical trial

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Introduction & Objectives:

Considering the proven therapeutic effect of botulinum toxin and the pathophysiology of seborrheic dermatitis, conflicting hypotheses have been put forward regarding the effect of injection of this toxin on the improvement or exacerbation of seborrheic dermatitis. Because of the lack of consistent studies investigating this relationship, we decided to conduct this study to investigate the effect of local botulinum toxin injection on sebum production and improvement or worsening of seborrheic dermatitis lesions.

Materials & Methods:

This study was a prospective, single-arm clinical trial that involved the injection of botulinum toxin into 20 patients with complaints of skin wrinkles and simultaneous symptoms of seborrheic dermatitis. The trial was conducted at a dermatology clinic between March 2019 and March 2021. Two important characteristics of these patients were seborrheic dermatitis on the face or scalp and a referral for botulinum toxin injection to remove facial wrinkles. The Seborrheic Dermatitis Area and Severity Index (SDASI) was used to determine the severity of symptoms.

Results:

In study of 20 patients with an average age of 40 years, despite the decrease in the average scores of all examined criteria of seborrheic dermatitis symptoms in study, 1 month after botulinum toxin injection, no significant effect of using this toxin was seen on the improvement of patients' symptoms (p value >0.05).

Conclusion:

Despite the emphasis of many studies on the effectiveness of botulinum toxin in reducing the activity of sebaceous glands, the use of botulinum toxin as a therapeutic modality for control the symptoms of seborrheic dermatitis is not suggested by this study. Conducting studies in which the location and technique of injection and the follow-up intervals of patients in them are based on the standard of other studies, are the suggestions made by comparing the results and method of the current study with other studies.

Abstract N°: 1296

Ruxolitinib versus Roflumilast: A Meta-analysis of the Comparative Efficacy of Two Topical Therapies for Atopic Dermatitis

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Ruxolitinib versus Roflumilast: A Meta-analysis of the Comparative Efficacy of Two Topical Therapies for Atopic Dermatitis

Introduction & Objectives: Atopic dermatitis (AD) is a chronic inflammatory skin condition that significantly impacts quality of life. Nonsteroidal topical therapies for AD have been increasingly utilized in clinical practice. This study aims to compare the efficacy of topical roflumilast (0.15% QD) and topical ruxolitinib (1.5% BID).

Materials & Methods: PubMed, MEDLINE, Embase, LILACs, Web of Science, CENTRAL, and Clinicaltrials.gov were searched from inception till November 2024. English-language studies evaluating approved doses of ruxolitinib or roflumilast for AD were included. Efficacy was assessed using proportion of patients achieving treatment success (TS), defined as an IGA score of 0/1 with a ≥2-point improvement from baseline, or EASI-75. A random-effects meta-analysis using logit-transformed proportions was performed to compare the relative efficacy of ruxolitinib and roflumilast, expressed as risk ratios (RR).

Results:

Overall, 13 trials with 4,278 patients (59.3% female, mean age 30.81 years) were included. At baseline, participants had a mean EASI score of 9.62, with most (74.3%) classified as having moderately severe AD. At week 4, ruxolitinib was twice as likely as roflumilast to achieve TS (RR, 2.08; 95% CI 0.99-4.33) and EASI-75 (RR, 2.05; 95% CI 1.48-2.82). Compared to controls, ruxolitinib demonstrated greater efficacy in achieving TS (RR, 4.31; 95% CI 1.42-13.02) and EASI-75 (RR, 4.05; 95% CI 3.11-5.28), while roflumilast was also effective but to a lesser extent (TS: RR, 2.14; 95% CI 1.69-2.70; EASI-75: RR, 1.98; 95% CI 1.65-2.37). At week 8, ruxolitinib maintained efficacy over controls in achieving TS (RR, 4.42; 95% CI 3.32-5.88) and EASI-75 (RR, 2.69; 95% CI 1.42-13.02).

Conclusion: This study suggests that topical ruxolitinib (1.5%, twice daily) is more effective than roflumilast (0.15%, once daily) in achieving TS and EASI-75 in patients with mild-to-moderate AD. Nonetheless, treatment decisions should be individualized and consider differences in mechanism, dosing, and safety profiles. Further studies with comparisons to established therapies (i.e. topical corticosteroids) are needed to optimize AD treatment protocols.

Figure 1. Random effects model demonstrates an effect size of 4.31 in the number of participants achieving treatment success at week 4 following ruxolitinib 1.5% twice daily compared to control.

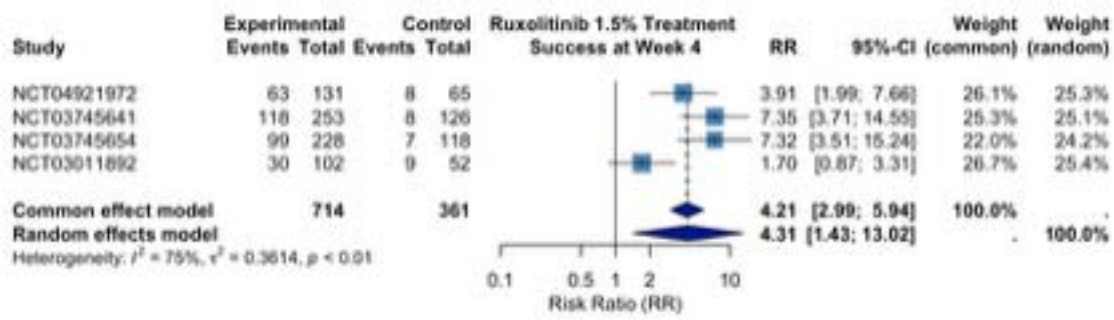


Figure 2. Common effects model demonstrates an effect size of 4.05 in the number of participants achieving EASI-75 at week 4 following ruxolitinib 1.5% twice daily compared to control.

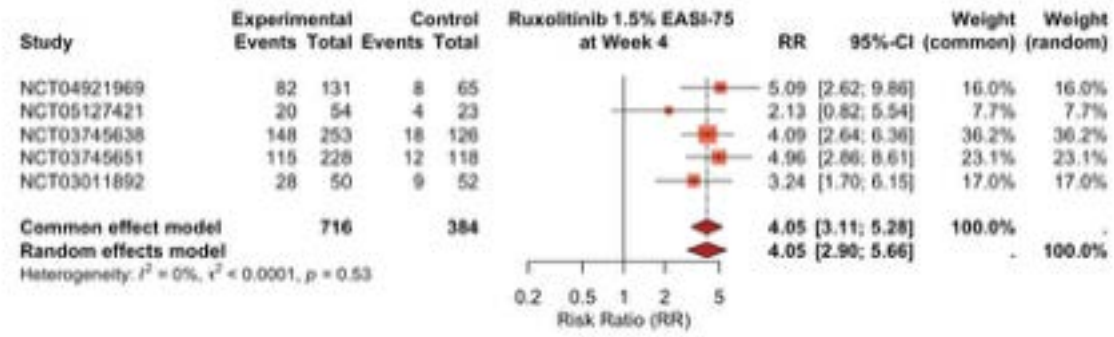


Figure 3. Common effects model demonstrates an effect size of 2.14 in the number of participants achieving treatment success at week 4 following roflumilast 0.15% once daily compared to control.

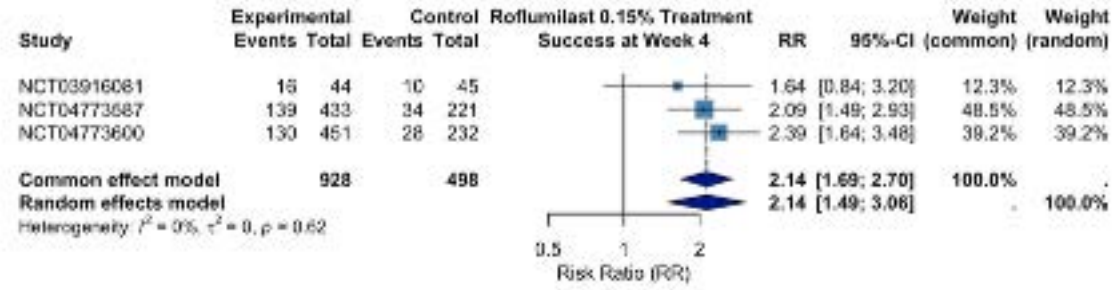
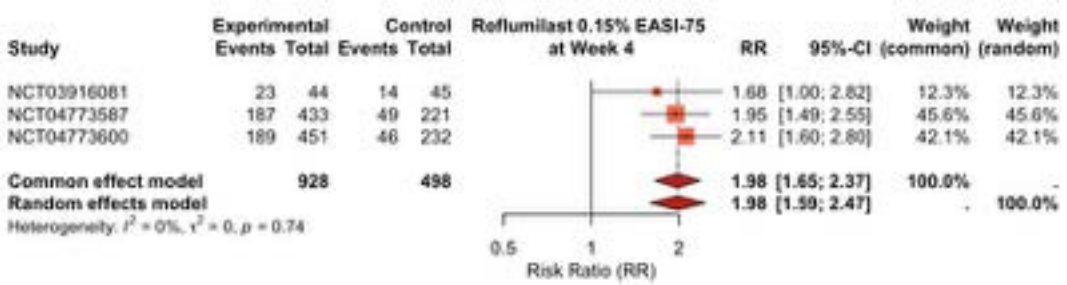


Figure 4. Common effects model demonstrates an effect size of 1.98 in the number of participants achieving EASI-75 at week 4 following roflumilast 0.15% once daily compared to control.



Abstract N°: 1407

Efficacy of Laser Therapy in Patients with Atopic Dermatitis: A Scoping Review

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Introduction & Objectives

Atopic dermatitis (AD), commonly known as eczema, is a prevalent chronic inflammatory skin condition that significantly impacts patients' quality of life, prompting ongoing research into alternative treatment approaches such as phototherapy. This scoping review examines the efficacy and suitability of phototherapy, particularly laser-based treatments, for managing AD. AD is characterized by persistent itching, redness, and inflammation, posing considerable challenges in dermatological care. While conventional treatments are widely used, their effectiveness varies, and they often come with side effects. As a result, researchers have explored alternative approaches, including narrow-band ultraviolet B (NB-UVB) phototherapy and various laser therapies.

Materials & Methods

A comprehensive literature search was conducted in September 2023 across three databases: EMBASE, Ovid MEDLINE, and Web of Science. The inclusion criteria encompassed original, English-language studies published between 2013 and 2023 that investigated phototherapy for AD. Excluded were non-human studies, dissertations, reviews, books, recommendations, opinions, policies, guidelines, and non-full-text articles.

Results

The search identified 27 relevant studies. Among laser therapies, two emerged as promising for the long-term management of AD: the 308-nm excimer laser and the picosecond- and nanosecond-domain Nd:YAG lasers. The 308-nm excimer laser was effective in reducing scratching behaviors in dermatitis mice across three studies. Picosecond- and nanosecond-domain Nd:YAG lasers facilitated deeper penetration of topical peptides and accelerated skin barrier recovery, though direct studies involving AD patients or animal models were lacking.

Despite these findings, no studies assessed the efficacy of these laser therapies across different patient populations, leaving a gap in understanding their long-term effectiveness. Additionally, while several studies explored AD at the molecular level—identifying potential therapeutic targets such as CADM1, filaggrin, HDAC, TGFβR1, JNK, c-Src, IL-1β, and TSLP—no direct correlation with laser therapy was established.

Conclusion

Laser therapies, particularly the 308-nm excimer laser and picosecond- and nanosecond-domain Nd:YAG lasers, show potential as treatment options for AD. However, further research is needed to determine their long-term efficacy and applicability across diverse patient populations. Future studies should focus on evaluating the impact of laser therapy on symptom management, inflammation reduction, and overall quality of life in AD patients.

Abstract N°: 1424

No meaningful body weight gain in adults with moderate-to-severe atopic dermatitis treated with dupilumab for 1 year

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Introduction /Objectives: Changes to body weight, particularly weight gain resulting from long-term medication use, may impact treatment decisions for patients with atopic dermatitis (AD). Weight gain has been associated with certain AD therapies, such as Janus kinase inhibitors.1 The limited evidence on weight gain in adults with moderate-to-severe AD receiving dupilumab treatment is conflicting.2–4The objective of this particular study is to evaluate the impact of dupilumab + topical corticosteroid (TCS) treatment for 1 year compared with placebo + TCS on changes to body weight (gain/loss) in adults with moderate-to-severe AD**.**

Methods: LIBERTY AD CHRONOS (NCT02260986) was a 1-year, randomized, placebo-controlled, phase 3 trial of adults with moderate-to-severe AD.5 This analysis included patients from CHRONOS treated with dupilumab 300 mg every 2 weeks (q2w) + TCS (n = 110) or placebo + TCS (n = 315). Mean and median change in body weight (kg) from baseline at Week 52 and the proportion of patients with clinically meaningful change in body weight (defined as ≥5% difference from baseline) are reported. Data are presented as observed; all statistics are descriptive.

Results: Body weight measures were similar between patients in both treatment arms from baseline to Week 52. Mean (standard deviation, SD) body weight at baseline was 73.0 kg (17.5) for patients randomized to dupilumab q2w + TCS and 75.0 kg (18.6) for those randomized to placebo + TCS. There was a slight increase in mean (SD) body weight after 52 weeks that was consistent across treatment arms (dupilumab q2w + TCS: +1.5 kg [4.5]; placebo + TCS: +0.9 kg [4.3]). Likewise, median (interquartile range) body weight was similar at baseline between patients randomized to dupilumab q2w + TCS (71.5 kg [59.8–83.4]) or placebo + TCS (73.1 kg [62.0–85.0]), which continued up to Week 52 (dupilumab q2w + TCS: +1.2 kg [−0.3 to 2.7]; placebo + TCS: +1.0 kg [−1.3 to 3.0]). Over the study period, the proportions of patients with clinically meaningful weight increase were similar between treatment groups (dupilumab q2w + TCS: 30.0%; placebo + TCS: 28.6%), while the proportion of patients with clinically meaningful weight decrease was lower in the dupilumab group compared with the placebo group (dupilumab q2w + TCS: 9.1%; placebo + TCS: 18.4%).

Conclusion: In this 1-year, randomized, placebo-controlled, phase 3 trial, dupilumab q2w + TCS treatment did not result in meaningful weight gain compared with placebo + TCS in adults with moderate-to-severe AD. These findings provide further clarity on this topic to guide shared decision-making between clinicians and patients.

Abstract N°: 1430

Dupilumab Consistently Reduces CCL-17 (TARC) in Patients with Atopic Dermatitis Across All Age Groups

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Introduction & Objectives: C-C motif chemokine 17 [CCL17; also known as thymus and activation-regulated chemokine (TARC)], is a key chemokine for attracting inflammatory cells into the target tissue, including Th2 lymphocytes and eosinophils. In atopic dermatitis (AD), CCL17/TARC is primarily secreted from keratinocytes, and serum CCL17/TARC levels are known to be correlated with severity of disease. Elevated levels of CCL17/TARC (collected by skin tape strips) has been shown to precede the development of childhood AD. Skin biopsies in AD patients treated with dupilumab have shown marked local reductions in expression of type 2 inflammatory pathway genes, including CCL17/TARC. The objective of this study is to determine the effect of dupilumab treatment on serum CCL17/TARC levels across all age groups.

Materials and methods: We report serum CCL17/TARC (human TARC Quantikine ELISA kit; R&D Systems) levels from patients with moderate-to-severe or severe AD enrolled in the following randomized, double-blind, placebo-controlled phase 3 studies, receiving approved dupilumab dose regimens: LIBERTY AD PRESCHOOL (aged 6 months to 5 years; NCT03346434 part B); LIBERTY AD PEDS (aged 6 to 11 years; NCT03345914); LIBERTY AD ADOL (aged 12 to17 years; NCT03054428); LIBERTY AD SOLO1 (aged 18 years or older; NCT02277743); LIBERTY AD SOLO2 (aged 18 years or older; NCT02277769). Both LIBERTY AD PRESCHOOL and LIBERTY AD PEDS studies allowed concomitant TCS use.

Results: There was a significant reduction, compared to placebo, in median percentage change from baseline in serum CCL17/TARC (pg/mL) in the combined dupilumab-treated arm across all age groups over 16 weeks (P<0.0001 at all the time points measured). At Week 16, reductions in serum levels of CCL17/TARC were about 80% from baseline across all age ranges. Reductions in serum CCL17/TARC levels were greater than 60% from baseline as early as after the first dose in all age ranges (P<0.0001 vs placebo).

Conclusions: Across all age ranges, dupilumab treatment demonstrated rapid and sustained reduction of serum CCL17/TARC levels after the first dose. Serum CCL17/TARC levels likely reflect skin CCL17/TARC levels and could be associated with leukocyte infiltration in lesional skin.

Abstract N°: 1432

Impact of dupilumab treatment on seasonal disease severity in adults with moderate-to-severe atopic dermatitis

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Introduction & Objectives: Seasonal trends in atopic dermatitis (AD)-related healthcare visits vary by geographical location and climate. Changes in temperature, moisture, and allergen exposure contribute to disease fluctuation. Long-term treatment strategies for AD should strive to reduce seasonal flares or exacerbations. We examined seasonal trends in AD severity and report the effect of dupilumab treatment on adults with moderate-to-severe AD across seasons.

Materials & Methods: LIBERTY AD CHRONOS (NCT02260986) was a global, 1-year, randomized, double-blind, phase 3 trial of adults with moderate-to-severe AD. Patients were treated with dupilumab 300 mg every week (qw), every two weeks (q2w), or placebo qw, all with concomitant topical corticosteroids (TCS). In this post hoc analysis, the proportion of patients per severity category of Investigator Global Assessment (IGA) score (range 0–4) by season was compared between patients receiving dupilumab 300 mg q2w + TCS (n = 79) or placebo qw + TCS (n = 234) for 1 year across 10 countries in the Northern Hemisphere. Meteorological seasons were defined as winter (December 1 – February 28/29), spring (March 1 – May 31), summer (June 1 – August 31), and fall (September 1 – November 30). Sensitivity analyses confirmed that season of enrollment was balanced across treatment arms and disease seasonality was independent of treatment length. *P* values are based on chi-square tests or Monte Carlo simulations of the Fisher exact test, based on sample size. All *P* values are nominal, and no adjustments have been made for multiple testing. Data are presented as observed.

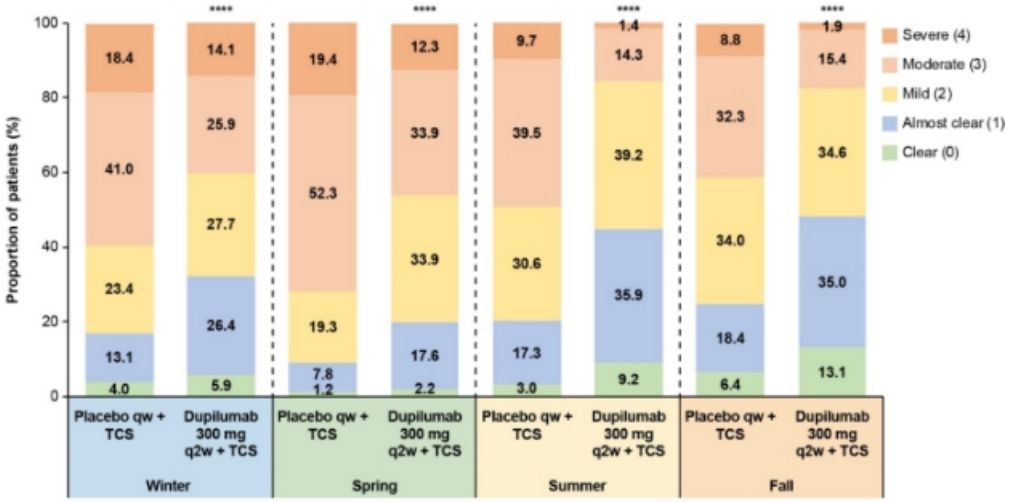
Results: The proportion of patients in both treatment arms with clear or almost clear IGA scores (≤1) was lowest in Spring (9%/20%, placebo vs dupilumab). The proportion of patients with clear or almost clear disease increased through summer (20%/45%; placebo vs dupilumab) and fall (25%/48%; placebo vs dupilumab), before beginning to decline again in winter (17%/32%; placebo vs dupilumab). Overall, IGA scores indicated significantly better outcomes for patients receiving dupilumab treatment vs placebo across all seasons

($P < 0.0001$ for each season).

Conclusion: Across the Northern Hemisphere, clinically assessed disease severity in adult patients with moderate-to-severe AD was greatest in the late winter and early spring months. The proportion of adults with clear or almost clear AD was greater in patients receiving dupilumab than those who received placebo across all seasons, supporting the need for continued therapy to maintain disease control.

Figure 1. Proportion of patients by IGA severity score, season, and treatment for patients in the Northern Hemisphere.

Figure. Proportion of patients by IGA severity score, season, and treatment for patients in the Northern Hemisphere.



Percentages are based on the total number of patients with data available. ****$P < 0.0001$ vs placebo qw + TCS.

Abstract N°: 1457

Cardiovascular risk in patients with atopic dermatitis.

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Introduction & Objectives: Atopic dermatitis (AD) is a chronic inflammatory skin condition that significantly impacts patients' Quality of Life (QoL). While it is primarily characterized by recurrent episodes of pruritus and eczematous lesions, patients with AD often exhibit lifestyle patterns that contribute to cardiovascular risk (CVR). These include increased sedentary behavior, poor dietary habits, and high levels of psychological stress. The aim of this study was to analyze cardiovascular risk in patients with AD.

Materials & Methods: A cross-sectional study was designed to include patients with AD. Through clinical interviews, sociodemographic variables and lifestyle factors (sedentary behavior, smoking, and alcohol consumption) were collected. Anthropometric parameters (BMI) were obtained through physical examination. The severity of AD was assessed using the EASI, SCORAD, DLQI, NRS itch, and sleep scales. Hemodynamic parameters were measured using the IEM Mobil-O-Graph device and I3 software. Analytical parameters (cholesterol, HDL, LDL, triglycerides, glucose and insulin) were analyzed following the protocol of the Clinical Analysis Unit of the hospital.

Results: A total of 50 patients were included, of whom 50.47% (26/50) were women, with a mean age of 38.3±15.3 years. Comorbidities were present in 60% (30/50) of patients, with 90% (27/30) having rhinoconjunctivitis and 66.7%(20/30) having asthma. A total of 23.5% (12/50) were smokers, with an average consumption of 9–10 cigarettes per day. Alcohol consumption was reported by 30% (15/50), with a mean intake of 1–2 standard drinking units. Patients spent an average of 7.38±2.38 hours per day sitting, which is more than two hours above the Spanish average. Regarding adherence to the mediterranean diet, 33.3% (17/53) had low adherence, 62.8% (32/53) had moderate adherence, and 10% (1/53) had high adherence. The disease was classified as moderate, with EASI 18.3±10.5, SCORAD 49.2±16.4, DLQI 10.8±6.8, NRS itch 7.1±2.9, and NRS sleep 4.2±4.1. Elevated systolic blood pressure (SBP) (>130 mmHg) was observed in 62.50% (30/48) of patients, while elevated diastolic blood pressure (DBP) (>80 mmHg) was noted in 52.08% (25/48). Total cholesterol levels were also high (>200 mg/dL) in 35,42%(17/48) of patients. Finally, higher SBP and DBP values were associated with a poorer quality of life, as assessed by DLQI (r=0.18, p=0.02; r=0.34, p=0.02).

Conclusion: More than half of the patients had pathological SBP and DBP values, indicating a potential increased CVR. Elevated BP levels were associated with poorer QoL. Total cholesterol was also high in one third of patients, suggesting metabolic alterations. Contributing factors included a sedentary lifestyle, and low adherence to the Mediterranean diet. These findings highlight the need for lifestyle interventions and cardiovascular monitoring in AD patients.

Abstract N°: 1521

Efficacy and Safety of Abrocitinib in Elderly with Atopic Dermatitis: A Prospective Study

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Introduction & Objectives:

Atopic dermatitis (AD) in the elderly is a newly recognized clinical subtype. Treating moderate-to-severe AD in this population is challenging due to comorbidities and deteriorating body functions. To assess the efficacy and safety of abrocitinib monotherapy in elderly with moderate-to-severe AD over 12 weeks.

Materials & Methods:

Conducted at Guangzhou Dermatology Hospital from March 2023 to January 2024. Patients (60 years and older) with moderate-to-severe AD were treated with abrocitinib 100 mg/d, SCORAD, EASI, IGA, DLQI, POEM, ADCT and PP-NRS changes were recorded at weeks 2, 4, 8, 10, and 12. Blood counts, IgE, hepatic and renal function, D-dimer, lipids, and cardiac enzyme levels were monitored at weeks 0 and 12.

Results:

Of 15 patients, 12 patients (80.00%) completed the study (age 65.00 [64.00, 78.00]). The differences in clinical efficacy scores showed statistical significance (all $P < 0.05$). By the 12th week, 66.70% (8 patients) reached SCORAD75 and EASI75. 41.70% (5 patients) reached IGA0/1, 83.30% (10 patients) attained PP-NRS ≤4, and all accomplished DLQI ≤5, POEM ≤7, and ADCT ≤7. One case each of abnormal AST, D-dimer, and cardiac enzyme levels normalized upon follow-up.

Conclusion:

Abrocitinib was effective and safe for elderly patients with moderate-to-severe AD over 12 weeks.

Abstract N°: 1525

Effectiveness and safety of age-based dosing of abrocitinib in children and adolescents with moderate to severe atopic dermatitis: a two-center, prospective real-world study in China

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Introduction & Objectives:

Abrocitinib have been approved for patients with moderate to severe atopic dermatitis (AD), but its effectiveness and safety in adolescents, especially children is not established in both clinical trial and real-world studies. We aimed to analyze real-world data of abrocitinib in the treatment of children and adolescents.

Materials & Methods:

We prospectively enrolled children and adolescents with moderate to severe AD from two centers, who were stratified based on age groups (< 6 years, 6-11 years, 12-17 years) and treated with oral abrocitinib at dosages of 25, 50, or 100 mg daily accordingly. The study assessed various parameters, including the eczema area and severity index (EASI), scoring of atopic dermatitis (SCORAD), investigator's global assessment (IGA), numerical rating scale (NRS)-itch, sleep-loss scores, children dermatology quality of life index (CDLQI)/DLQI, and safety at baseline and at weeks 2, 4, and 12 of treatment.

Results:

This study included 28 children and adolescents with moderate to severe AD (4 patients aged <6 years, 9 aged 6-11 years, and 15 aged 12-17 years). All patients combined exhibited a rapid and significant improvement in the clinical signs and symptoms of AD following the initial follow-up visit. By week 12, EASI-50, EASI-75 and EASI-90 responses were achieved by 100%, 60.7% and 25.0% of all patients combined, respectively. 57.2% of all patients combined achieved IGA 0/1, and 85.7% had a reduction in NRS-itch score of at least 4 points. The sleep-loss score and CDLQI/DLQI score were reduced by 78.8% and 78.5% of all patients combined, respectively. Similar trends in the data were observed across various age groups, including patients aged < 6 years, 6-11 years, and 12-17 years. Two adolescents (7.1%) experienced mild adverse events, including Kaposi's varicelliform eruption and nausea, with no occurrence of serious adverse events throughout the treatment period.

Conclusion:

The real-world application of age-based dosing of abrocitinib revealed favorable efficacy and well-tolerated safety profiles in treating moderate to severe AD among children and adolescents.

Abstract N°: 1600

Development of a new Atopy Patch Test for Atopic Dermatitis

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Introduction & Objectives:

Atopic dermatitis (AD) is a common chronic inflammatory skin disease with a complex and not fully understood pathomechanism. AD is frequently associated with allergic sensitizations to environmental allergens, particularly house dust mites (HDM), which have the highest prevalence among AD patients. Identifying specific allergens that trigger cutaneous inflammation is crucial for personalized management. The atopy patch test (APT) has been a valuable diagnostic tool for identifying allergen sensitization in AD; however, it is currently commercially unavailable, limiting its clinical utility. To address this gap, we aimed to develop a new APT for HDM and evaluate its reliability in detecting HDM sensitization in AD patients.

Materials & Methods:

First, the *Dermatophagoides pteronyssinus* allergen was obtained from commercially available prick test material through lyophilization. The resulting antigen solution was then incorporated into **vaseline cholesterinatum**, forming an ointment suitable for application in a patch test setting. To determine the minimal irritant dose, a series of preliminary tests were conducted. A final test concentration of 4% was selected and applied to both healthy volunteers and AD patients with a documented positive response to HDM in the late APT in previous years.

Results:

After testing on healthy subjects (HS), the new APT yielded consistent results for all individuals. The test was all negative on HS, while we managed to show positive APT results on AD patients who were previously tested positive with the old APT. The negative APT results on AD patients (who had positive result with the old test) did not undermine the sensitivity or effectiveness of our test in detecting sensitization, however further tests are necessary to be conducted. Overall, the results demonstrated that the new APT may be able to effectively confirm sensitizations in AD patients, with no localized side effects.

Conclusion:

Since the management of AD focuses on reducing exacerbating factors, identifying clinically relevant sensitizing allergens is crucial. This underscores the importance of reliable allergen-sensitization tests. Given the unavailability of the previous APT, there is a clear need for an alternative. In this study, we developed a new APT formulation that shows promise in effectively detecting allergen sensitizations in AD patients.

Abstract N°: 1791

A Novel Multidisciplinary Dermatological Care Model for Managing Patients with Acne and Atopic Dermatitis: Consensus Guidance for Pharmacists

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[10]Loblaw , Calgary, Canada
[11]Beacon Dermatology, Calgary , Canada
[12]Clinic One Three Eight, Vancouver, Canada
[13]Dermapure, Vancouver, Canada
[14]MAPflow Inc, Oakville, Canada
[15]University of Waterloo, Waterloo, Canada
[16]Sobeys, Chilliwack, Canada
[17]Shoppers Drug Mart, Toronto, Canada
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Introduction & Objectives: Acne and atopic dermatitis (AD) are common dermatological conditions with significant impact on patients' quality of life. Both conditions require long-term management, often involving a combination of prescription medications, over-the-counter (OTC) products, and lifestyle modifications. Recent legislation has expanded pharmacists role in these conditions. To address care gaps and enhance long-term management, four national panels (in British Columbia, Ontario, Alberta, and Quebec), comprising 22 dermatologists and pharmacists, convened to develop a collaborative framework. Their goal was to formally define how pharmacists can support mild to moderate acne and AD management collaboratively with community dermatologists, ultimately optimizing patient outcomes.

Materials & Methods: Key questions were identified based on current patient journey gaps in acne and AD care, focusing on patient initial assessment, follow-up, communication, and multidisciplinary collaboration between the dermatologist and pharmacist.

Results: Using the Nominal Group Technique (NGT) in two voting rounds, eight consensus recommendations emerged:

Pharmacists should:

1. Educate patients on prescription therapies and minimizing side effects.
2. Offer guidance on evidence-based skincare, including non-comedogenic products, sunscreens, and barrier-supporting moisturizers.
3. Recommend emollients to maintain skin hydration, crucial for AD.
4. Detect and address potential drug-drug interactions.
5. Demonstrate proper topical medication application to prevent side effects.
6. Assess adherence to treatments and intervene early to boost compliance.
7. Clarify safety and long-term use of treatments, particularly biologic and targeted therapies.
8. Collaborate proactively with dermatologists and other primary care providers, sharing updates as well as potentially adjusting topical treatments based on patient response or initiating for mild clinical presentation of acne and/or AD.

Conclusion: Given the absence of a unified pharmacy framework for dermatological care in Canada, this consensus guidance provides a novel blueprint for multidisciplinary management of acne and AD by the pharmacist in collaboration with the dermatologist, ultimately supporting better patient experiences and outcomes. **

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1828

Mobile Health Applications and Telemonitoring in Atopic Dermatitis: A Systematic Literature Review of Self-Management and Clinical Outcomes

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Introduction & Objectives:

Atopic dermatitis (AD) is a common and complex skin condition that requires continuous disease monitoring and personalised education. Effective management is often challenged by factors such as geographical disparities, pandemics, limited healthcare resources, and shortages of specialists, particularly in underserved areas. Mobile health (mHealth) applications offer potential solutions by facilitating remote patient monitoring, enhancing self-management, improving treatment adherence, and optimising professional-patient communication. While these technologies are not intended to replace in-person consultations, they serve as complementary tools to enhance disease management at home.

This review aims to evaluate the effectiveness of mobile health (mHealth) applications and telemonitoring interventions in enhancing self-management, treatment adherence, and clinical outcomes in patients with atopic dermatitis (AD). Additionally, it seeks to identify key features and limitations of existing eczema apps and highlight gaps in validation, standardisation, and quality assurance.

Materials & Methods:

A systematic literature review was conducted following PRISMA guidelines and the five-stage framework for scoping reviews outlined by Arksey and O'Malley. A comprehensive search was performed across MEDLINE, EMBASE, PubMed, and the Cochrane Central Register of Controlled Trials to identify original research articles and clinical trials assessing the effectiveness of mobile health apps and electronic monitoring devices in the management of AD.

Results:

A total of forty-one studies met the inclusion criteria. Thirty-eight studies reported a reduction in Dermatology Life Quality Index (DLQI) and Patient-Oriented Eczema Measure (POEM) scores, while all studies showed that mobile applications improved adherence to treatment. Additionally, six studies demonstrated an improvement in SCORAD, indicating clinical improvement in disease severity.

The review also identified substantial variability in eczema app functionalities. While 80% of apps provided educational information, only 45% included a symptom-tracking function, and 20% featured medication reminders.

Many studies highlighted that despite their potential, eczema apps often lack robust validation and quality assurance mechanisms, emphasising the necessity for standardised guidelines to support clinicians in recommending high-quality digital tools for patients and caregivers.

Conclusion:

mHealth applications and telemonitoring offer valuable opportunities for improving AD management through enhanced patient education, treatment adherence, and disease tracking. However, significant heterogeneity in app quality and the lack of regulatory oversight necessitate further standardisation and clinical validation. Future research should focus on optimising digital interventions to ensure safe, effective, and personalised patient care. As trends in mHealth interventions for chronic disease management continue to evolve, emerging technologies are likely to transform healthcare delivery, particularly benefiting rural and underserved populations by improving access to dermatological care and self-

management support.

Abstract N°: 1932

The effect of omega-3 polyunsaturated fatty acids on the clinical course of atopic dermatitis.

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Introduction & Objectives:

Atopic dermatitis (AD) is a chronic inflammatory skin disease with a high prevalence and a tendency to severe recurrent course, which worsens the quality of life and increases treatment costs. Pathogenesis includes genetic predisposition and disruption of the skin barrier. Current therapy is often insufficiently effective, which actualizes the search for new approaches. Research points to the importance of nutrient status, especially omega-3 PUFAs with anti-inflammatory properties, the deficiency of which aggravates symptoms. Personalized nutrient correction can optimize treatment, reduce the frequency of exacerbations and improve the quality of life of patients, especially with resistant forms of AD.

Materials & Methods:

The study included 20 patients aged 15 to 35 years diagnosed with moderate AD. The main clinical manifestations were skin itching of varying intensity, sleep disorders, polymorphic rashes, and increased dryness of the skin. After the acute phase of the disease had been relieved, the patients were recommended an additional dietary supplement containing omega-3 polyunsaturated fatty acids (2400 mg of fish oil obtained from Far Eastern salmon species) for one month. This therapy was aimed at achieving long-term control over the symptoms of the disease and improving the clinical course of AD.

Results:

The results of the study demonstrate the potential benefit of additional omega-3 fatty acids as a maintenance therapy for patients with moderate AD. The use of the supplement contributed to improved control over the symptoms of the disease and had a positive effect on the overall clinical course of AD. No exacerbations of AD were recorded. Good tolerability of the therapy was noted.

Conclusion:

Thus, this study confirms the potential clinical significance of nutritional support using omega-3 PUFA in the complex treatment of atopic dermatitis. The observed improvement in symptom control and the absence of exacerbations indicate the possibility of optimizing therapy and improving the quality of life of patients. Further studies with a larger sample are needed to confirm the obtained data and determine the optimal dosage and duration of administration.

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 1934

Assessment of risks of nutritional deficiency in children with atopic dermatitis.

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Introduction & Objectives:

Atopic dermatitis (AD) is a common chronic inflammatory skin disease in children, making it a significant public health problem. Due to the role of food allergy (FA) in the development of AD, children are prescribed strict elimination diets that exclude the main food allergens, which, however, is not always the optimal solution for each patient, requiring an individual approach. And the consequence of such unjustified diets in children is a violation of the nutritional status and the development of protein-energy deficiency.

Materials & Methods:

The study included 32 children aged 6 months to 5 years with confirmed AD, who had been following a strict elimination diet for three months. The diagnosis of AD was based on the results of allergy tests (determination of specific IgE antibodies, skin scratch tests), anamnesis data, clinical picture, and results of the diagnostic elimination diet. To assess the actual nutrition of the children, three-day food diaries (2 days on weekdays and 1 day off) were used, which were filled in by parents starting at least 4 weeks after the start of the elimination diet. Parents were provided with detailed instructions on filling in the diaries, including recommendations on portion size assessment and sample menus.

Results:

It was found that 78% of children (n=25) had increased levels of specific IgE antibodies to food allergens, indicating food sensitization. In 31% (n=10), the diagnostic elimination diet, which involved excluding suspected foods, led to a positive clinical effect. In this regard, these children were recommended a therapeutic elimination diet, compliance with which demonstrated a positive correlation with an improvement in the course of AD. The remaining 22 children were not recommended a therapeutic elimination diet, since the diagnostic elimination diet therapy did not give positive results, even in the presence of confirmed food sensitization. Analysis of food diaries revealed the prevalence of deficiency of essential macronutrients: calorie deficiency was observed in 87.5% of children, protein deficiency in 56.2%, fat deficiency in 62.5%, and carbohydrate deficiency in 46.9%.

Conclusion:

Thus, the weight deficit observed in young children with AD is mainly due to alimentary factors. In particular, 87.5% of patients were found to have a caloric deficit in their diet, mainly due to insufficient consumption of fats and proteins, and less often carbohydrates. This emphasizes the need for a personalized approach to diet correction that takes into account the individual needs and preferences of the child. The decision to prescribe a therapeutic elimination diet should be based not only on the positive results of an allergological examination, but also on the clinical picture of the disease, as well as on the results of diagnostic elimination diet therapy, in order to minimize the risk of developing protein-energy deficiency.

When conducting diet therapy, systematic monitoring of the quantitative and qualitative composition of the diet is necessary to prevent nutrient deficiencies and the development of nutritional insufficiency.

Abstract N°: 1936

Controlling atopic dermatitis through lifestyle modification

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Introduction & Objectives:

Atopic dermatitis (AD) is characterized by high prevalence and is one of the most common chronic inflammatory skin diseases in pediatric practice, especially in young children and infants. Standard treatment protocols for AD include topical glucocorticosteroids, calcineurin inhibitors, and antihistamines. Current pharmacotherapy for AD is often insufficiently effective to achieve long-term control of the disease, especially in moderate and severe forms. At the same time, long-term use of topical corticosteroids and other drugs may be accompanied by undesirable side effects. In this regard, the relevance of non-pharmacological treatments increases, in particular, lifestyle modification, including rational skin care and avoidance of triggers.

Materials & Methods:

To evaluate the effectiveness of lifestyle modification in controlling AD symptoms, we conducted an observational study involving 30 children aged 3 to 9 years with a diagnosis of moderate AD. All patients had clinical manifestations characteristic of AD, such as skin itching of varying intensity, sleep disorders, polymorphic rashes, and dry skin. After achieving remission induced by standard therapy, all children were recommended to use a complex of emollients for daily skin care for 3 months and normalize the elimination lifestyle. The effectiveness of this approach was assessed based on the dynamics of clinical symptoms, the SCORAD index, and the assessment of quality of life (CDLQI) before and after a 3-month period of emollient use.

Results:

Initially, after achieving remission (before the start of emollient therapy), the mean SCORAD index value was 18.1 ± 2.3, which corresponded to moderate AD severity. Assessment of quality of life using the CDLQI questionnaire revealed a very strong impact of the disease on the lives of patients, as evidenced by the mean CDLQI value of 12.2 ± 3.6 points. With regular use of emollients, all patients showed positive dynamics on the 3rd day of therapy, such as reduced itching and dry skin, improved sleep, and a decrease in the area of skin lesions. After 3 months of therapy, the mean SCORAD index value significantly decreased, amounting to 1.4 ± 0.3 ($p < 0.05$), which corresponded to clinical remission. The CDLQI value also demonstrated a significant improvement, amounting to 2.7 ± 0.9 points ($p < 0.05$), indicating a minimal impact of the disease on quality of life. During the observation period, exacerbations of AD were recorded in 2 patients, associated with acute respiratory viral infection and psychoemotional stress, respectively. These exacerbations were stopped using standard therapy.

Conclusion:

Thus, regular use of emollients may be an effective strategy to achieve long-term control of AD symptoms in children and reduce the need for pharmacological agents.

Abstract N°: 1940

Atopic dermatitis: more than skin deep eczema

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Atopic dermatitis: more than skin deep eczema

Introduction & Objectives:

Atopic dermatitis (AD) is a common condition known for its allergic associations. However, less is known about its association with other non-allergic conditions.

Our objective was to study the comorbidities of AD through a prospective study conducted over 5 months.

Materials & Methods:

This is a cross-sectional study that recorded all cases of AD who consulted our dermatology department over a period of five months, from January to May 2023. We focused on studying the associated conditions within this sample.

Results:

61 patients with atopic dermatitis aged between 4 months and 55 years were included. The mean age of onset was 52 months, and the sex ratio (male/female) was 1,17. Six patients were asthmatic (9.8%), 21 patients had allergic rhinitis (34%), 10 patients had allergic conjunctivitis (16.4%), and 8 patients were being followed for urticaria (13.1%). Contact dermatitis was noted in 5 patients (8.2%) with positive and relevant patch tests in two cases, and food allergies were associated in 6 cases (9.8%). We noted an association with a history of interatrial communication (IAC) in 3 patients (4.9%), gastroesophageal reflux disease (GERD) in 2 patients (3.2%), and anemia in one patient (1.6%). Neuropsychiatric disorders were also noted in 8 patients (13.1%), one of whom had epilepsy, while the others complained of anxiety or irritability. Among the dysimmune conditions, there was one patient being followed for vitiligo (1.6%) and two patients being followed for thyroid disorders (3.2%). Recurrent infections were observed in one patient (1.6%), with no underlying immunodeficiency identified. Bacterial infections, specifically impetigo, were noted in 9 patients (14.7%), viral infections in 2 patients (3.2%), fungal infections in 3 patients (4.9%), and scabies in 2 patients (3.2%).

Our series is consistent with the literature, which highlights the frequent associations between AD and allergic, infectious, and dysimmune manifestations. We report less frequent associations with neuropsychiatric disorders, particularly epilepsy. Furthermore, the risk of GERD observed in 2 patients appears significant according to the literature. The association with IAC described in our study has not been previously reported to our knowledge.

Conclusion:

Understanding the comorbidities associated with atopic dermatitis is crucial for optimizing disease management and adopting a holistic approach to patient care. Further studies are essential to elucidate the pathophysiology of these associations, which could improve clinical outcomes and treatment strategies.

Abstract N°: 1942

Cannabis-induced Contact Dermatitis

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Introduction & Objectives:

The consumption of cannabis is being legalized in many countries, with growing interest in its medical use. It is therefore important for clinicians to be aware of its side effects and to remain vigilant regarding the emergence of adverse effects, which appear to have increased significantly in recent years.

Case presentation:

A 23-year-old man, with no notable medical history, presented with a three-day history of a pruritic rash on the face extending to the trunk and upper limbs. Clinical examination revealed erythematous-vesicular lesions, some of which were oozing and impetiginized, located on the beard area and the scalp margin. Significant bilateral periorbital edema restricted eye opening. Additionally, the examination noted the presence of allergic rhinitis and conjunctivitis. There was no mucosal involvement or associated systemic symptoms. Complete blood count, renal and liver function tests were normal. Viral serologic tests for hepatitis B and C viruses, and HIV were negative. Histological examination of skin biopsy showed spongiosis without keratinocyte necrosis, associated with a moderate dermal inflammatory infiltrate, consistent with a diagnosis of eczema. The patient reported no use of topical products, specific exposures, or suspected medication intake. However, after a thorough interview, the patient revealed a history of cannabis consumption two days before the onset of the rash. Topical corticosteroids and antihistamine treatment was started. The discontinuation of cannabis use, along with the prescribed treatments, led to complete resolution of the rash. The diagnosis of cannabis-induced contact dermatitis was suspected. The route of exposure is most likely direct through the cigarette, with airborne exposure via smoke, given the significant involvement of the eyelids. However, a systemic route via inhalation cannot be ruled out. Patch tests using the European baseline series were conducted, with negative results. One month later, the patient returned with a recurrence of the same symptoms, following re-exposure to the same substance, cannabis. Based on the positive reintroduction test, the diagnosis of allergic contact dermatitis induced by cannabis was confirmed.

Conclusion:

Given the increased consumption of cannabis in recent years, our case underscores the importance of investigating cannabis use in patients presenting with an eczematous skin eruption of unknown etiology.

Abstract N°: 2008

Lichenoid contact dermatitis to parfum : a case report

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Introduction & Objectives:

Allergic contact dermatitis (ACD) is a delayed-type hypersensitivity reaction classified as type IV according to Gell and Coombs. Classically, in the acute phase, it presents as a polymorphic eruption characterized by erythema, papules, and vesicles. “Dry” eczema presents as erythematous, slightly scaly lesions that may progress to lichenification. However, ACD exhibits clinical polymorphism and can sometimes present with non-eczematous lesions. We report a case of ACD presenting with a combination of pigmented, lichenoid, and purpuric features.

Case presentation:

A 70-year-old man with no medical history, working as a copper craftsman, presented with a pruritic pigmented eruption that had been evolving for 20 years. Pruritus was exacerbated by the use of certain personal hygiene products and cleaning agents for copper instruments used by the patient. Clinical examination revealed multiple pigmented lesions with a reticulated pattern on the limbs, shoulders, and décolleté. The lesions were scaly, with a lichenoid appearance in some areas and a purpuric background on the thighs. Complete blood count, renal and liver function tests were normal, along with the total IgE levels. The skin biopsy revealed a mildly acanthotic epidermis with parakeratotic hyperkeratosis and mild spongiosis. The dermis showed a band-like lymphocytic inflammatory infiltrate associated with numerous melanophages and lymphocyte exocytosis, characteristic of an interface dermatitis appearance. Patch testing showed positivity for Fragrance Mix (++) and Lauryl polyglucose (++). A retrospective focused history confirmed the relevance of the test, revealing symptom exacerbation with the use of fragranced products, supporting the diagnosis of ACD. Allergens avoidance led to slow clinical improvement, observed over 9 months of follow-up.

Discussion:

ACD is a prevalent condition in dermatology, typically diagnosed based on characteristic eczematous lesions, including erythema, edematous bases, vesicles, and, in more severe forms, bullous formation, often accompanied by intense pruritus. However, the diagnosis can be more challenging in the presence of non-eczematous lesions. The most commonly observed non-eczematous variants of ACD include erythema multiforme-like, purpuric, lichenoid, and pigmented forms. A comprehensive patient history is critical in these cases. Skin biopsy can be instrumental in guiding the diagnosis but primarily serves to rule out differential diagnoses. In the present case, the biopsy was repeated three times to exclude the possibility of mycosis fungoides. Both the detailed anamnesis and biopsy findings must be supplemented by patch testing to confirm the diagnosis. These atypical clinical presentations of ACD remain rare and difficult to diagnose. Our case is particularly notable for the co-occurrence of lichenoid, pigmented, and purpuric lesions in a single patient.

Conclusion:

ACD can present with non-eczematous lesions, which warrant recognition and awareness.

Abstract N°: 2095

Efficacy and safety of anti-OX40 antibodies in the treatment of moderate-to-severe atopic dermatitis: A systematic review and meta-analysis of RCTs

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Introduction & Objectives:

Atopic dermatitis (AD) has a significant impact on sleep, mental health, and work productivity. Treatment options for moderate-to-severe AD face limitations, as many patients either do not respond adequately or cannot tolerate available therapies. Recent studies suggest that blocking the OX40–OX40 ligand axis may represent a promising therapeutic approach for T cell–mediated diseases. The aim of this study is to evaluate the therapeutic potential of anti-OX40 antibodies (abs) by assessing their efficacy and safety in the treatment of moderate-to-severe AD through a comprehensive systematic review and meta-analysis.

Materials & Methods:

PubMed, Embase, Cochrane, and Web of Science databases were searched from inception through January 2025 for studies comparing anti-OX40 abs to placebo in patients with moderate-to-severe AD. A total of 864 articles were screened in accordance with the PRISMA guidelines. The primary outcomes of interest were any adverse events, and the proportion of patients achieving a 50% (EASI-50) and 90% (EASI-90) reduction in the Eczema Area and Severity Index (EASI) score from baseline at week 16. A restricted maximum likelihood random-effects model with risk ratios (RR) and 95% confidence intervals (CI) was employed. Prespecified subgroup analyses were performed based on the specific anti-OX40 abs used in the study (Amlitelimab, Rocatinlimab, and Telazorlimab). Heterogeneity was assessed using the Cochrane's Q chi-square test and the I^2 statistic. Statistical significance was defined as a p-value<0.05. The analysis was performed using R software (version 4.4.2).

Results:

Five double-blind, placebo-controlled, phase 2 randomized trials were included, involving 1,279 patients, of whom 943 (73.7%) were randomized to receive treatment with an anti-OX40 abs. The mean age in this study was 37.3 ±14.1 years, with 46.3% female patients.

At week 16, a significantly higher percentage of patients with anti-OX40 treatment achieved EASI-50 (RR 1.82; 95% CI 1.60-2.08; p<0.001; I^2=16.3%) and EASI-90 (RR 4.25; 95% CI 2.82-6.43; p<0.001; I^2=0%) compared to those receiving placebo.

Regarding the occurrence of any adverse effects, there was no statistically significant difference between patients receiving anti-OX40 therapy and those receiving placebo (RR 1.06; 95% CI 0.98-1.13; p=0.144; I^2=26.8%).

Conclusion:

In patients with moderate-to-severe AD, the use of anti-OX40 abs demonstrated effectiveness in achieving EASI-50 and EASI-90 at week 16 compared to placebo. Additionally, anti-OX40 was considered safe, as no significant difference was observed in the occurrence of adverse effects between patients receiving this therapy and those receiving placebo. These

findings suggest that anti-OX40 abs may represent a promising therapeutic strategy for moderate-to-severe AD.

Abstract N°: 2111

Safety and efficacy of twice-daily 1% benvitimod cream in children aged 2 to 17 years with atopic dermatitis: Results from the phase 3 study

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Introduction & Objectives:

Atopic dermatitis (AD), a chronic inflammatory skin disorder characterized by intense pruritus, with onset usually occurring in childhood. In this study, 272 participants aged ≥2 years with moderate-to-severe AD were randomized to receive twice-daily (BID) applications of benvitimod cream 1% (TAP1503, BEN, an aryl hydrocarbon receptor modulator) cream for 8 weeks. A subset of 142 were children aged 2-17 years old. Here, we report safety and efficacy of BEN cream use this patient population. This is the first and only phase III clinical study in China to use BEN for treating AD and the first to focus on Chinese children.

Materials & Methods:

The TAP1503 study is a randomized, double-blind, parallel group, vehicle-controlled Phase III clinical study (CTR20231413), which conducted in more than 30 sites in China. Patients were randomized 2:1 to apply 1% BEN cream, or vehicle BID for 8 weeks. 272 adults and children aged 2 years and older with moderate to severe AD were included. All patients fulfilled the Hanifin and Rajka criteria for AD for at least 1 year (≥18 years), at least 6 months (≥12 to <18 years), or at least 3 months (≥2 to <12 years). Inclusion criteria required affected BSA of 5-35% and IGA ≥3 points at baseline and screening. Safety and tolerability were assessed by the frequency and severity of treatment-emergent adverse events (TEAEs). Disease control was measured by the proportion of patients achieving EASI75 and an IGA score of 0/1, data are reported as observed.

Results:

Among the 272 randomized patients, 142 were 2–17 years old. In this pediatric subset, the baseline mean (SD) BSA was 14.72% (8.2%), and the mean (SD) EASI score was 11.35 (5.3). After 8 weeks of treatment, the EASI75 response rate in the 2–17 age group was substantially higher in those receiving BEN cream 1% compared with the vehicle (69.2% vs 31.0%, p< 0.001).

In the subgroup aged 7–11 years (N=52), the EASI75 response rate reached 83.9% vs 19.2% (BEN vs vehicle, p< 0.001)).

In the subgroup aged 2-
17 years, more participants achieved IGA response in benvitimod group (61.5% vs 28.5%, p<0.001) and even higher IGA res ponse rate was achieved in 7-11 age subgroup (73.3% vs 23.1%, p< 0.001). In all age subgroups, the incidence of TEAEs was similar to that in the vehicle group (51.4% vs 43.2%). The most frequent adverse events included folliculitis, contact dermatitis, and application site reactions, majority which were mild-to-moderate. Treatment discontinuation rates due to adverse effects were comparable between 1% BEN and vehicle groups (4.4% vs 3.4%).

Conclusion:

In this Chinese cohort of children with moderate-to-severe AD, BEN cream 1% demonstrated a favorable tolerability

profile and robust efficacy. These findings are consistent with similar safety outcomes observed in adolescents and adults, suggesting that 1% BEN cream may be a promising treatment option for pediatric AD in China.

Abstract N°: 2222

Five-year real-world drug survival of dupilumab for patients with moderate-to-severe atopic dermatitis: A multicenter retrospective study

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Introduction & Objectives:

While our group previously reported two-year drug survival of dupilumab for moderate-to-severe atopic dermatitis (AD), there is limited real-world evidence regarding persistence of dupilumab in the long-term beyond this time point. We conducted a 5-year multicenter retrospective review of adult patients with AD who initiated dupilumab.

Materials & Methods:

Our retrospective multicenter study from 3 institutions in Canada included adult patients with moderate-to-severe AD who received dupilumab treatment. All patients who initiated dupilumab prior to November 15, 2019 were included, up to a maximum follow-up of 5-years with data lock occurring on November 15, 2024. Both patient-reported and physician-assessed clinical adverse events (AEs) were recorded at each follow-up. Reasons for treatment discontinuation and estimated time until treatment discontinuation were recorded at each follow-up. A Kaplan-Meier curve was generated to estimate drug survival. Patients who discontinued dupilumab for reasons other than effectiveness/safety were censored, while patients lost to follow-up were censored.

Results:

A total of 160 patients were included in this analysis (mean age: 45.5 [range: 18-88] years; female gender: 53.1% [85/160]). In a nonresponder imputation (NRI) analysis at 5 years, 55.6% (89/160) achieved Investigator Global Assessment (IGA) score of 0/1, with 43.8% (32/73), 39.7% (29/73), and 28.8% (21/73) achieving 75%, 90%, and 100% improvements in Eczema Area and Severity Index (EASI75, EASI90, and EASI100, respectively). In an observed cases (OC) analysis at 5 years, 97.8% (89/91) achieved IGA 0/1, with 94.1% (32/34), 85.3% (29/34), and 61.8% (21/34) achieving EASI75, EASI90, and EASI100, respectively. There were 38.8% (62/160) of patients who experienced at least one AE in total while on dupilumab, with the most common AEs between 4 to 5 years being ocular surface disease (3.4%, 4/117), paradoxical head/neck dermatitis (1.7%, 2/117), and herpes simplex (0.9%, 1/117). In total, there were 45 (28.1%) treatment discontinuations (drug-related reason [n=31]: lack of efficacy [n=17]; adverse event [n=14]; non-drug related reason [n=14]). Common AEs requiring treatment discontinuation included ocular surface disease (17.8%, 8/45), paradoxical head/neck dermatitis (4.4%, 2/45), and injection site reaction (4.4%, 2/45). The overall probability of drug survival for dupilumab was 86%, 82.7%, 81.3%, 79.9%, and 79.9% at 1 year, 2 years, 3 years, 4 years, and 5 years,

respectively.

Conclusion:

Our Canadian real-world study demonstrated a 5-year dupilumab drug survival of 79.9% (n=160 at baseline); this is slightly superior to that observed from an Italian real-world study (n=709 at baseline), which demonstrated a dupilumab drug survival of 71.5% at the same time-point. Our NRI and OC analyses demonstrate that for patients who continue dupilumab up to 5 years, a high proportion of patients achieve IGA 0/1 (NRI: 55.6%, 89/160; OC: 97.8%, 89/91). At 5 years, reasons for treatment discontinuation include lack of efficacy (37.8%, 17/45) and AEs (31.1%, 14/45), with the most common AE leading to treatment discontinuation being ocular surface disease (17.8% [8/45] of all treatment discontinuations). Our results indicate that dupilumab maintains a high level of retention up to 5 years and provides sustained control of moderate-to-severe AD. Study limitations include its retrospective nature.

Abstract N°: 2271

Age-specific effects of atopic dermatitis on patient's quality of life: a comparative study

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Age-specific effects of atopic dermatitis on patient's quality of life: a comparative study

Introduction & Objectives:

Atopic dermatitis (AD) is a chronic skin disease causing pruritus, barrier dysfunction, and immune dysregulation. It significantly impairs health-related quality of life (HRQoL) due to persistent symptoms and psychological burden. While AD is common in young adults, it increasingly affects the elderly, where aging modifies its impact through skin changes and comorbidities.

This study compares AD's impact on HRQoL in young adults (18–25 years) and elderly patients (≥65 years) using SF-36 and DLQI, assessing physical, mental, and social burdens to identify age-related differences.

Materials & Methods:

Study Design and Participants

A cross-sectional study of 80 AD patients:

• Group A: 40 patients (18–25 years)

• Group B: 40 patients (≥65 years)

Inclusion: Confirmed AD diagnosis, ability to complete questionnaires.

Exclusion: Severe systemic or dermatological conditions affecting HRQoL.

Data Collection

\1. Questionnaires:

o SF-36: Assesses physical, emotional, and pain-related domains.

o DLQI: Evaluates AD's impact on daily life, relationships, and work.

\2. Clinical Examination: Lesion severity, pruritus intensity, complaints.

\3. Statistical Analysis: t-tests compared SF-36 and DLQI scores, Pearson correlation assessed AD severity and HRQoL.

Results:

Demographic Data

• Young Patients (Group A): Avg. age 21.4 ± 2.1 years, 55% female (22 individuals).

• Elderly Patients (Group B): Avg. age 68.5 ± 3.4 years, 60% female (24 individuals).

HRQoL Differences

SF-36 Scores:

• Young patients: Social functioning 62.3 ± 5.1, mental health 58.7 ± 4.8.

• Elderly patients: Physical functioning 45.2 ± 6.3, bodily pain 42.8 ± 5.5.

DLQI Scores:

• Young patients: DLQI 14.8 ± 3.2, 70% emotional distress & social limitations.

• Elderly patients: DLQI 13.1 ± 3.7, 62.5% poor sleep, 67.5% treatment concerns.

Clinical Differences

Young Patients:

• 65% acute AD episodes, 75% severe itching, 70% social stigma.

Elderly Patients:

• 80% chronic lesions, 75% worsening from comorbidities, 65% difficulty in self-care

Conclusion:

AD impairs HRQoL in both age groups, but in different ways:

• Young adults: More psychosocial distress.

• Elderly patients: More physical limitations & chronic symptoms.

Findings highlight age-specific treatment needs:

• Young patients need psychological support & social adaptation.

• Elderly patients require optimized physical care & comorbidity management.

EADV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 2314

An Effective Approach to Managing Atopic Dermatitis and Prurigo Nodularis with Dupilumab in Elderly Patients

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Introduction & Objectives:

Atopic dermatitis (AD) is a chronic, inflammatory skin disorder characterized by pruritus and eczematous lesions, while prurigo nodularis (PN) is characterized by the development of pruritic nodules. The coexistence of these two conditions can worsen symptoms, leading to increased pruritus and extensive skin involvement. Dupilumab, a monoclonal antibody targeting the interleukin-4 and interleukin-13 pathways, has demonstrated efficacy in treating AD, but its role in managing both AD and PN simultaneously is still in the early stages of research. This study presents two cases in which dupilumab demonstrated significant improvement in managing both conditions.

Materials & Methods:

We present two elderly patients, aged 72 and 85, diagnosed with atopic dermatitis and prurigo nodularis. PN was confirmed histopathologically, while AD was diagnosed according to the Hanifin and Rajka criteria. Both patients had previously undergone topical and systemic corticosteroid therapy without satisfactory improvement. They were then started on dupilumab therapy, following the standard dosing regimen. Clinical assessments were performed to evaluate symptom progression and response to treatment.

Results:

Both patients showed significant improvement following the initiation of dupilumab therapy. The first patient, aged 72, had a SCORAD score of 62.85 and a DLQI of 17 at baseline, which decreased to a SCORAD of 5.4 and a DLQI of 0 after 6 months. The second patient, aged 85, presented with a SCORAD score of 60.9 and a DLQI of 14 at the start of therapy, which improved to a SCORAD of 0 and a DLQI of 0 at the 6-month follow-up.

Both patients experienced significant relief from pruritus, a reduction in prurigo nodules, and improvement in eczematous lesions. This led to enhanced quality of life, including better sleep and reduced emotional distress. The significant improvements in SCORAD and DLQI scores further support the effectiveness of dupilumab in managing the simultaneous occurrence of both atopic dermatitis and prurigo nodularis. These findings highlight dupilumab's potential as a safe and effective treatment, particularly for elderly patients with complex, coexisting dermatologic conditions.

Conclusion:

Dupilumab is an effective and safe treatment for patients with both atopic dermatitis and prurigo nodularis, particularly in those unresponsive to conventional therapies. Significant improvements in pruritus, skin lesions, and quality of life support its use in managing these complex cases. Furthermore, dupilumab is a beneficial treatment for elderly patients, offering a safe option where other therapies may be less suitable. Further research is necessary to explore its long-term effects and broader applicability.

Abstract N°: 2341

Analytical Changes in Patients Treated with Upadacitinib: A 52-Week Follow-Up Study

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Introduction & Objectives:

Upadacitinib, a selective JAK inhibitor, has been associated with changes in hematological, lipid, and hepatic parameters in clinical trials. Reported alterations include decreases in absolute neutrophil count (ANC) and absolute lymphocyte count (ALC), dose-dependent increases in lipid parameters, and elevations in liver enzymes (Gamma-glutamyl transferase, GGT, and alanine aminotransferase ALT). However, the long-term real-world impact of these changes remains uncertain. This study aims to evaluate the analytical changes in patients treated with upadacitinib over 52 weeks.

Materials & Methods:

We conducted a prospective observational study including AD patients who initiated upadacitinib for the first time. Hematological, lipid, and hepatic parameters were monitored at baseline and throughout the 52-week follow-up period. Changes in ANC, ALC, hemoglobin, lipid profile, and liver enzymes were analyzed.

Results:

After 52 weeks of treatment, 21 AD patients were included. Mean age of the patients was 27.33 (11.57 SD) years, being 42.9% (9/21) of them female. No significant changes were observed in ANC (3.68 vs 3.30, p=0.46), ALC (2.54 vs 2.77, p=0.25), or liver enzyme levels compared to baseline, ALT (23.75 vs 31.5, p=0.30), GGT (25.00 vs 34.17, p=0.14). Changes in total cholesterol were observed, (178.33 vs 197.42 p=0.011), however no other significant changes were reported in any other lipid parameters; LDL (109.00 vs 117.56, p=0.26), HDL (67 vs 75, p=0.10). No cases of severe cytopenia, significant lipid alterations requiring intervention, or drug-induced liver injury were detected.

Conclusion:

In this real-world cohort, upadacitinib treatment did not lead to significant analytical changes over 52 weeks. These findings suggest that routine laboratory monitoring, while recommended, may not frequently detect clinically relevant alterations. Further studies with larger populations are warranted to confirm these results.

EA DV SYMPOSIUM PRAGUE 22-24 MAY 2025

Abstract N°: 2372

factors influencing atopic dermatitis treatment

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Introduction & Objectives:

Atopic dermatitis (AD) is a chronic skin condition predominantly affecting children, with its severity often influenced by various environmental and behavioral factors. This study aims to evaluate the impact of these factors on symptom exacerbation and treatment resistance in children under the age of 16 diagnosed with AD.

Materials & Methods:

This cross-sectional study included 85 pediatric patients. Factors assessed included housing conditions, breastfeeding practices, the age of solid food introduction, exposure to irritating textiles, washing methods, bathing frequency, cleaning products used, tobacco exposure, allergens (mites, animal hair, pollen), the presence of domestic animals, sweating, stress, emollient use, improper use of topical corticosteroids, frequent use of broad-spectrum antibiotics, and cases of contact dermatitis or skin irritations. Biological analyses included measurements of vitamin D levels, total IgE levels, and a complete blood count (CBC), along with C-reactive protein and allergy tests.

Results:

The mean age of the study population was 3 years, with the majority (53.6%) falling within the 2–6-year age group. All participants met the Hanifin and Rajka diagnostic criteria, ensuring population homogeneity.

In terms of geographical distribution, 58.8% of the children lived in urban areas, while 41.2% resided in rural settings. Additionally, 81.2% of the participants were not from consanguineous marriages, reducing potential genetic predisposition. Parental education levels varied, with 62% being illiterate, 21% having completed primary education, 13% secondary education, and only 4% higher education.

Regarding breastfeeding, 83.5% of the children had been breastfed, with 58.8% exclusively breastfed. Conversely, 22.7% of mothers had not breastfed their children, including 4 cases where breastfeeding lasted less than three months. Dietary diversification at 6 months was observed in 49.1% of cases, while 30.9% had introduced solid foods before this age.

Passive smoking exposure was identified in 29% of the children, a known aggravating factor. Moreover, 23.5% of the participants had contact with animals during their early years, predominantly cats in urban areas and livestock in rural areas.

Regarding living conditions, 73.9% of homes were well-ventilated, with at least one window per room, while 26.4% were poorly ventilated. Dust presence was reported in 41.8% of households, another potential exacerbating factor.

Preliminary findings revealed significant correlations between environmental and behavioral factors and disease severity. Notably, tobacco exposure, the presence of domestic animals, and improper use of topical corticosteroids were associated with symptom aggravation and treatment resistance. Additionally, patients with severe forms of AD frequently exhibited low vitamin D levels and elevated total IgE levels.

Conclusion:

This study highlights the multifactorial nature of atopic dermatitis and underscores the predominant role of environmental

and behavioral influences in exacerbating symptoms and hindering treatment efficacy. Addressing these factors, coupled with educating families on preventive measures and optimal treatment strategies, could enhance management outcomes for pediatric patients. Further research is warranted to validate these findings and refine therapeutic approaches.

Abstract N°: 2381

Factors associated with poor control of atopic dermatitis: a cross-sectional study.

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Introduction & Objectives: Atopic dermatitis (AD) is a chronic inflammatory skin disease with a fluctuating course and a significant impact on quality of life. Poor disease control is associated with clinical and psychosocial factors that may influence treatment response. The Atopic Dermatitis Control Tool (ADCT) is a validated patient-reported tool to assess disease control. This study aims to identify factors associated with poor AD control based on ADCT scores.

Materials & Methods: A cross-sectional study was conducted on adults patients diagnosed with AD attending for the first time at a tertiary care hospital. Sociodemographic, clinical, and treatment-related data were collected. AD control was assessed using the ADCT scale, with a score of ≥7 indicating poor control. Associations between ADCT scores and factors such as age, sex, atopic history, disease severity and comorbidities were analyzed.

Results: A total of 257 patients were included, with a mean age of 37.57 years (SD 20.396), of whom 54.47% were female. A total of 64.2% patients had an ADCT score ≥7, indicating poor disease control. Patients with poor AD control more frequently had prurigo phenotype (P = 0.0087), genital involvement (P = 0.0031), buttock involvement (P = 0.0265), and affected family members (P = 0.0382). Additionally, patients with poor disease control showed a greater impact on quality of life, as measured by higher DLQI scores (10.47 vs. 2.67, P < 0.001), greater pruritus intensity according to the NRS itch scale (7.21 vs. 2.62, P < 0.001), and more severe sleep disturbances, as reflected in the NRS sleep scale (4.44 vs. 0.96, P < 0.001).

Conclusion: Poor AD control is associated with distinct clinical features (prurigo phenotype, genital and buttock involvement), greater pruritus, sleep disturbances, and a significant impact on quality of life, emphasizing that clinician-assessed disease severity alone does not fully capture the burden of AD.

Abstract N°: 2401

Serum vitamin D level in children with atopic dermatitis.

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Introduction & Objectives:

Atopic dermatitis (AD) is a chronic relapsing inflammatory skin disease with intermittent flares and debilitating effects on the patient's quality of life. The pathology of AD involves a complex interplay of dysfunctions of immune response, genetic and environmental factors. The role of vitamin D in atopic dermatitis (AD) among children has actively been covered in the scientific literature, which is also confirmed by numerous experimental research into the influence of vitamin D on the functions of immune cells. There is much interest in the potential role of vitamin D deficiency in the development of AD However, currently existing findings on the influence of vitamin D on the incidence and severity of AD remain rather controversial.

Materials & Methods:

70 children aged from 6 months to 8 years with varying AD severity took part in the research. The children were clinically diagnosed with AD based on mandatory and additional criteria. The severity of the disease was determined with the Scoring Atopic Dermatitis index (SCORAD) being the most validated and commonly used in clinical research. The severity of AD is divided into mild AD with SCORAD < 25, moderate AD with SCORAD > 25, and severe AD with SCORAD > 50. Determination of the level of the total IgE was carried out by means of the enzyme immunoassay. Determination of the concentration of 25 (OH) D in the blood serum was carried out by the enzyme immunoassay as well. For the primary analysis in this study, we categorized the serum 25(OH)D levels into three clinically relevant ranks identified by the Endocrinology Society Clinical Practice Guidelines which are deficient (<20 ng/mL), insufficient (21-29 ng/mL), and sufficient (>30 ng/mL).

Results:

The study revealed that 25,7% of the children had a mild AD, 34,3% of them had a moderate AD, and 40 % of the children had severe AD. It was determined that all patients had different levels of the total IgE (from normal to very high values – 60 – 2300 me/ ml). Meanwhile, a linear correlation with a probability of 0.99 was determined between the severity of the disease and the level of the total IgE. The optimal concentration of 25 (OH) D3 in blood serum (> 30 ng / ml) was not detected in any child with AD. At the same time, 70% of the children had a significant deficiency of vitamin D (<20 ng / ml), and 30% of the children had values of this indicator corresponding to the insufficient . According to the score of SCORAD, the level of serum 25 (OH) D in patients with severe AD was significantly lower than that in patients with mild AD. The study revealed an inverse correlation between the severity of AD and the level of serum 25 (OH) D, as well as between the level of total IgE and the level of serum 25 (OH) D. It is interesting to note that there was no correlation revealed between the age and gender of the children and the studied parameters.

Conclusion:

All children with AD had a deficient and insufficient serum vitamin D level. Meanwhile, the severity of the disease was associated with lower levels of the vitamin D, which may explain the frequency of secondary infection in patients with severe AD. There is a need for additional research to evaluate the impact of vitamin D treatment on the outcome of AD children.