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ABSTRACT BOOK

15th Georg Rajka International Symposium on Atopic Dermatitis

Melbourne, Australia

October 24–26, 2025

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Abstracts from 15th Georg Rajka International Symposium on Atopic Dermatitis

Melbourne, Australia
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Contents of this Abstract Book

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Welcome Address from ISAD 2025 General Chair

It is with great delight that we welcome you to the 15th Rajka Symposium for Atopic Dermatitis (AD) in Melbourne, Australia, the land of the Wurundjeri people of the Kulin Nation: 24-26 October 2025, the centenary year of Professor Georg RAJKA's birth. Dreaming for the Australian Aboriginal and Torres Strait Islander People recounts the creation of life and renewal, mirroring the stories of ISAD and of the evolving landscape of atopic dermatitis research and treatment. This meeting gives occasion to recall these histories, to reflect on current challenges still faced at environmental, social, personal, and molecular levels, and to reconsider strategic future directions for eczema research and care. Our symposium theme is therefore History, Memory, and Retelling. We will also highlight evolving understandings of risk determinants for AD and immunological pathways affecting AD development and persistence. The symposium will be valuable for all clinicians, researchers, residents, and students who wish to be current in atopic dermatitis research and management. We are privileged to have Professor Peter C. DOHERTY among our list of distinguished speakers. Together with Prof. Rolf ZINKERNAGEL, he was awarded the 1996 Nobel Prize in medicine for ground-breaking work on T cells. Melbourne, located in southeast Australia, was recently voted the world's most liveable city for 8 consecutive years. A cosmopolitan and multicultural city, it has become known for its coherent and unassuming fusion of European, Asian, and many other influences. Our conference venue will be the Grand Hyatt, located in central Melbourne within an easy walk of the sporting, shopping, and entertainment districts. We look forward to welcoming you to the great Southern Land, to a unique event for information exchange, learning, and both the creation and renewal of friendships for all those dedicated to improving the lives of those with atopic dermatitis.

Prof. John C. SU
MBBS, MEpi, MA, MSt, MBA, FRACP, FACD
RAJKA 2025 General Chair
Clinical Director of Dermatology at Eastern Health, Paediatric dermatologist at Murdoch Children's Research Institute, The Royal Children's Hospital and at Austin Health, Clinical Professor at Monash University
Melbourne, Australia

ISAD: Setting Atopic Dermatitis in a Global Health Perspective

From Doha to Melbourne: One Health, Equity and Access, and Memory Around G. Rajka's Centennial

Since our last gathering in Doha, the International Society of Atopic Dermatitis (ISAD) has continued to expand its collaborative mission across continents and disciplines. Our community has embraced an integrative approach to understanding atopic dermatitis (AD) as a complex, multisystem condition influenced by genetics, environment, and society.

A major outcome of this effort is the 2025 Allergy publication, "Examining Atopic Dermatitis Through the One Health Concept Lens," which situates AD within the One Health paradigm linking human, animal, and environmental well-being. This perspective broadens the scope of dermatology, connecting climate change, biodiversity loss, and microbiome diversity to the prevention and management of allergic skin disease.

Equity and Access: A Global Milestone

A significant achievement of ISAD was the inclusion of low-cost emollients in the 2025 WHO Essential Medicines Core List. This success underscores ISAD's advocacy for equitable access to basic dermatological care, ensuring that safe and effective skin barrier restoration is recognized as a universal need. It represents a milestone in translating scientific consensus into public health action.

Addressing Misinformation and Embracing Digital Innovation

The ISAD-OPENED Task Force has been active in launching a plan to counter misinformation on AD—an issue magnified by the rapid spread of unverified online content. Our ongoing initiatives promote transparency, patient education, and scientific accuracy in digital communication.

At the same time, ISAD-OPENED is exploring the transformative potential of artificial intelligence—not as a substitute for clinical expertise, but as an ally in building a patient-centered, data-informed approach to AD care. This reflects our vision of combining human empathy with digital intelligence.

A Centennial of Memory and Meaning

The 15th Rajka Symposium, hosted by Professor John Su in Melbourne, holds special symbolic weight as it marks the centennial of Georg Rajka's birth. The meeting's motto—"Memory, History, and Retelling"—invites us to revisit his pioneering work on pruritus in AD and to reflect on how memory connects scientific heritage with innovation. Through remembrance, we renew our collective curiosity and commitment to advancing the understanding and care of atopic dermatitis.

Looking Forward

As ISAD enters its next chapter, our focus remains clear: to foster collaboration, equity, and innovation through shared knowledge among all stakeholders and within a One Health perspective. The journey from Doha to Melbourne exemplifies how memory, science, and empathy can together guide the future of our field.

Enjoy the meeting!

Alain TAÏEB
President ISAD
Bordeaux, France

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LAST PROGRAM UPDATE

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Friday, October 24, 2025 — History, Memory, and Retelling

Time (UTC+11/AEST)	Program	Speaker	
	Welcome addresses		
12:55	Acknowledgement of Country	*Indigenous Welcome*	
13:00	Centennial of Georg RAJKA Birth	*Suzanne RAJKA*	▶
13:05	Welcome to Melbourne	*John C. SU*	
13:10	Welcome to Australia	*Adriene LEE*	
13:15	ISAD President Address	*Alain TAÏEB*	
13:40	Reporting from the OCAD Meeting	*Roberto TAKAOKA*	
13:50–15:05 UTC 02:50–04:05	**Session 1** — **Innate and Adaptive Immunity*** *Chairs: Magdalena TRZECIAK, Anne R. HALBERT*		
13:50	T Helper 2 (Th2) Cells in AD – Learning from Inborn Errors of Immunity	*Cindy MA*	KL1
14:15	Atopic Dermatitis Presentations in Inborn Errors of Immunity	*Amir H. ABDUL LATIFF*	IL1
14:30	Can Peripheral T Cell Immunophenotypes in AD be Useful to Predict Systemic Treatment Response?	*Margitta WORM*	IL2
14:50	Comparative Transcriptomic Profiling of Asian AD and Psoriasis Reveals Candidate Molecular Targets for Precision Therapy	*Chang Ook PARK*	OL1
15:05–16:35 UTC 04:05–05:35	**Session 2** — **Regulation of T Cell Immunity & Systemic Immunity and Immune Crosstalk** *Chairs: Dirk-Jan HIJNEN, Jason FOK*		
15:05	Skin-Resident Lymphocyte Diversity and Function - Implications for AD	*Laura MacKAY*	KL2
15:30	Basophils: A Paradigm of Skin Neuroimmune Crosstalk	*Fang WANG*	IL3
15:50	High-dimensional Immune Profiling of AD Reveals a Dysfunctional OX40+ Regulatory T Cell Subset	*Dong Hun LEE*	OL2
16:05	Keratinocyte-Specific Progranulin Deficiency in Psoriasiform or AD Inflammation	*Sung-Eun CHANG*	OL3
16:20	Basophil Response Patterns Reveal Divergent Effects of Dupilumab and Abrocitinib in AD	*Wenjing JIANG*	OL4
16:35–17:05 UTC 05:35–06:05	**Poster Session 1 – Visit Exhibits and Coffee Break**		
17:05–18:00 UTC 06:05–07:00	**Session 3** — **Skin Barrier and Phenotypes** *Chairs: Kyu-Han KIM, Linda MARTIN*		
17:05	Skin Barrier Research in AD in the Era of Biologics	*Eung Ho CHOI*	KL3
17:30	Clinical and Molecular Heterogeneities of AD	*Wei LI*	IL4
17:55	Topical Sulforaphane Ameliorates AD by Enhancing Keratinocyte Barrier Function	*Shan WANG*	OL5
19:00–22:00	**Welcome Reception** — **Carlton Gardens, Melbourne Gallery in the Melbourne Museum**		

Saturday, October 25, 2025 — History, Memory, and Retelling

Time (UTC+11/AEST)	Program	Speaker	
08:35–10:00 UTC 21:35–23:00	**Session 4**	**Georg RAJKA Centennial session** *Chairs: Alain TAÏEB, John C. SU*	
08:35	100 Years from the Birth of Georg Rajka – AD over a Century	*Alain TAÏEB & Johannes RING*	KL4
09:00	Remembering the 1988 International Symposium on AD in Oslo, Norway	*Roberto TAKAOKA*	IL5
09:10	Towards Personalised Therapy and Potential Disease Modification	*Peter SCHMID-GRENDELMEIER*	IL6
09:35	New Systemic Therapies for AD	*Amy S. PALLER*	IL7
10:00–10:30 UTC 23:00–23:30	**Poster Session 2 – Visit Exhibits and Coffee Break**		
10:30–12:00 UTC 23:30–01:00	**Session 5**	**Epidemiology and Outcome Research** *Chairs: Peter SCHMID-GRENDELMEIER, Shyamali DHARMAGE*	
10:30	Primary Prevention of AD	*Carsten FLOHR*	KL5
10:50	Skin Lipids in the Development of AD and Food Allergy	*Adrian LOWE*	IL8
11:10	Running Remote Eczema Trials - Opportunities and Risks	*Kim S. THOMAS*	IL9
11:30	The Impact of Data Source on Global Trends in AD Prevalence	*Sheng-Pei WANG*	OL6
11:45	Global, Regional and National Burdens of AD in Adolescents and Young Adults Aged 10-24 Years from 1990 to 2021: a Trend Analysis	*Zhixuan LI*	OL7
12:00–13:30	**Lunch and Visit Exhibits + Skin Matters with GlobalSkin & the GADA**		
13:30–15:00 UTC 02:30–04:00	**Session 6**	**Itch and Prurigo*** *Chair: Diana PURVIS*	
13:30	Georg RAJKA: Contributions to Understanding AD, Prurigo, and Itch	*Laurent MISERY*	KL6
13:40	Itch and Pain in AD and Prurigo Nodularis	*Laurent MISERY*	IL10
14:05	Known and Novel Regulators of Itch Cytokine IL-31 in Type 2 Disease	*Marlys FASSET*	IL11
14:30	AD Predisposes Dupilumab Related Conjunctivitis in Prurigo Nodularis Patients	*Piotr K. KRAJEWSKI*	OL8
15:00–15:30 UTC 04:00–04:30	**Poster Session 3 – Visit Exhibits and Coffee Break**		
15:30–16:00 UTC 04:30–05:00	**Session 7**	**Potential Novel Pathways** *Chairs: Yoko KATAOKA, Fang WANG*	
15:30	EGFR-mediated Autophagy by Betacellulin Improves AD Pathogenesis	*Ge PENG*	OL9
15:45	Context-Dependent Roles of Necroptotic Signalling in Cutaneous Inflammation: Implications for AD Pathogenesis and Therapeutic Targeting	*Holly ANDERTON*	OL10
16:00–16:20 UTC 05:00–05:20	**Session 8**	**What's New from the Industry** *Chairs: Chia-Yu CHU, George A. VARIGOS*	
16:00	Achieving Minimal Disease Activity with JAK iInhibition in AD (AbbVie)	*Gayle L. ROSS*	SL1
16:15	Lilly's Commitment to Dermatology	*William ROMERO GALLARDO*	SL2
16:20	DELTA TEEN Phase 3 Trial for Delgocitinib Cream, a non steroidal pan-JAK inhibitor, Demonstrates Efficacy and Safety in Adolescents with Moderate to Severe Chronic Hand Eczema	*Teodora FESTINI*	SL3
19:30–22:30	**President's Dinner** Local Organizing Committee Cultural Invitation: Peter C. DOHERTY	**Arts Centre Melbourne**	

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Sunday, October 26, 2025 — History, Memory, and Retelling

Time (UTC+11/AEST)	Program	Speaker	
08:30–10:00 UTC 21:30–23:00	**Session 9** — **Exposome and Microbiome** *Chairs: Lin MA, Pablo FERNANDEZ-PEÑAS*		
08:30	Skin metagenomics and Metatranscriptomics to Advance AD Research	*John COMMON*	KL7
08:50	Skin Environmental and Microbial Crosstalk in AD Pathogenesis	*Xu YAO*	IL12
09:10	Predict to Prevent - Harnessing the Skin Microbiome to Transform AD Care	*Claudia TRAIDL-HOFFMAN*	IL13
09:30	Voluntary Exercise Modulates the Gut Microbiota and Improves Skin Inflammation in a Mouse Model	*Wanchen ZHAO*	OL11
09:45	Predicting Malassezia Sensitization in AD and other Dermatoses Using Clinical and Immunological Markers: a Machine Learning Approach	*Wanjin KIM*	OL12
10:00–10:30 UTC 23:00–23:30	**Poster Session 4 – Visit Exhibits and Coffee Break**		
10:30–12:00 UTC 23:30–01:00	**Session 10** — **Systemic and New Therapies for Atopic Dermatitis** *Chairs: Yong-Kwang TAY, Li-Chuen WONG*		
10:30	Cannabinoids in AD - Exploring New Treatment Horizons	*Ji-Hyun LEE*	KL8
10:55	Efficacy and Safety of Ruxolitinib Cream in Adults with Moderate AD: Results From TRuE-AD4, a Phase 3b, Randomized, Double-Blind, Vehicle-Controlled Study	*Andreas WOLLENBERG*	OL13
11:10	Real-world Analysis for Long-term Treatment of Moderate-to-Severe AD with Adjusting Doses of Dupilumab	*Huibin YIN*	OL14
11:25	Real-world Efficacy of Dupilumab and Clinical Predictors of Treatment Response in AD - a Polish Multicenter Retrospective Study	*Weronika ZYSK*	OL15
11:40	Application of Real-world Effectiveness Outcomes of Upadacitinib to Canadian Treat-to-target Criteria for AD: a Retrospective Multicenter Analysis of 1 Year Data	*Jensen YEUNG*	OL16
12:00–13:00	**Lunch and Visit Exhibits**		
13:00–14:30 UTC 02:00–03:30	**Session 11** — **Complications and Comorbidities of Atopic Dermatitis** *Chairs: Roberto TAKAOKA, Dedee MURRELL*		
13:00	Infectious Complications and Comorbidities of AD	*Andreas WOLLENBERG*	KL9
13:25	Disease-specific Comorbidities in AD	*Katrina ABUABARA*	IL14
13:45	Elucidating the Long-Term Comorbidity Spectrum and Trajectories of AD	*Yi XIAO*	OL17
14:00	The Risk of Venous Thromboembolism in AD: A Population-Based Cohort Study	*Lina IVERT*	OL18
14:15	Dupilumab-associated Ocular Surface Disease in AD has a Distinct Tear Profile	*Chia-Yu CHU*	OL19
14:30–15:50 UTC 03:30–04:50	**Session 12** — **Pediatric AD and Comparative Dermatology** *Chairs: Ellis HON, Anousha YAZDABADI*		
14:30	Managing Children with Moderate-to-Severe AD and Complications of Therapy	*Sébastien BARBAROT*	KL10
14:55	Paediatric AD - Syndromes and Mimickers	*Sandipan DHAR*	IL15
15:15	AD in Veterinary Practice	*Rebecca BASSET*	IL16
15:35	High Efficacy of 1% Benvitimod Cream in Pediatric Patients with AD: a Post-hoc Analysis of a Phase III Trial	*Jianzhong ZHANG*	OL20
15:50–16:20 UTC 04:50–05:20	**Poster Session 5 – Visit Exhibits and Coffee Break**		
16:20–17:25 UTC 05:20–06:25	**Session 13** — **Atopic Dermatitis in Diverse Skin Types** *Chairs: Kin Fon LEONG, Lena LY*		
16:20	AD in Africa: Advancing Research, Care, and Equity in Diverse Skin Types	*Erere OTROFANOWEI*	KL11
16:40	Diagnostic Challenges of AD in the Elderly African Population: a Case Series Highlighting Mismanagement and Clinical Mimics	*Gloria Elisante MASENGA*	OL21
16:55	Exploratory Study of Skin Microbiome among Black Skin Children with AD in Urban and Rural Areas in Mali	*Lamissa CISSÉ*	OL22
17:10	Real-world Management of AD in Sub Saharan Africa	*Fahafahantsoa RAPELANORO RABENJA*	OL23
17:10	**Closing Ceremony**		
17:10	Best Poster/Presentation Awards, Local Best Posters	*John C. SU*	
17:20	Next Rajka Symposium: Beijing, China	*Lin MA*	
17:25	Closing Remarks	*Alain TAÏEB & John C. SU*	

KEYNOTE LECTURE ABSTRACTS (KL)

KL.1
T HELPER 2 (TH2) CELLS IN ATOPIC DERMATITIS – LEARNING FROM INBORN ERRORS OF IMMUNITY

Cindy S. MA
Human Immune Disorders Laboratory, Garvan Institute of Medical Research, School of Clinical Medicine, Faculty of Medicine and Health, UNSW, Sydney, Australia

Inborn errors of Immunity (IEI) are a heterogenous group of disorders caused by loss- or gain-of-function in germline genes that are essential for an intact immune system. As such, affected individuals are susceptible to severe, recurrent opportunistic bacterial, viral and/or fungal infections. However, the spectrum of disease extends beyond infectious susceptibility to include autoimmune, malignant and allergic manifestations. The latest update from international union of immunological societies (IUIS) IEI committee reports on over 550 IEIs. The term primary atopic disorders (PADs) have been used to reference the collection of ~50 IEIs that present with allergic manifestations such as early onset, treatment resistant eczema, eosinophilia, food anaphylaxis. These conditions link specific genes and pathways to atopic disease. In particular, the pathways involved in the generation of CD4+ T cells that overly produce the Th2 cytokines interleukin (IL)- 4, 5 and 13 and the production of immunoglobulin E (IgE), the Ig isotype underlying the majority of allergic diseases. Our lab is interested in studying these lymphocyte subsets in PAD to provide insights into more common allergies experienced by the general population.

KL.2
SKIN-RESIDENT LYMPHOCYTE DIVERSITY AND FUNCTION - IMPLICATIONS FOR AD

Laura MACKAY
University of Melbourne, Australia

Abstract summary not available at the time of printing

KL.3
SKIN BARRIER RESEARCH IN ATOPIC DERMATTIS IN THE ERA OF BIOLOGICS

Eung Ho CHOI
Department of Dermatology, Yonsei University Wonju College of Medicine, South Korea

Atopic dermatitis (AD) is a multifactorial disorder arising from genetic predisposition, skin barrier dysfunction, and immune dysregulation. Although biologics and JAK inhibitors have revolutionized the management of moderate-to-severe AD, the role of the skin barrier remains fundamental. Loss-of-function mutations in Filaggrin (FLG), deficiency of ceramide, and increased stratum corneum (SC) pH are critical determinants of barrier impairment, which not only drive disease onset and persistence but also initiate the atopic march. Biomarkers such as transepidermal water loss (TEWL) and natural moisturizing factors (NMF) in infancy can predict AD development, underscoring the prognostic importance of barrier assessment. Experimental and clinical studies indicate that maintaining an acidic SC environment enhances lipid-processing enzymes, stabilizes microbial homeostasis, and lowers the risk of flares. A careful interpretation of clinical trials suggests that early application of mildly acidic moisturizers may reduce the likelihood of AD development. Furthermore, preservation of barrier function may attenuate systemic allergic progression, complementing the efficacy of targeted immunotherapies. This lecture will integrate mechanistic insights with clinical data to reaffirm the central role of barrier research and management in the biologic era.

KL.4
100 YEARS FROM THE BIRTH OF GEORG RAJKA – ATOPIC DERMATITIS OVER A CENTURY

Johannes Ring[1], Alain TAÏEB[2]
[1]*Technical University of Munich, Germany,* [2]*University of Bordeaux, France*

Atopic dermatitis (AD) has likely existed for over 2,000 years, though its prevalence rose dramatically in the late 20th century. More precise definitions appeared at the end of the 19th century (Brocq, Besnier), with "allergy" introduced by von Pirquet in 1906, "atopy" by Coca and Cooke in 1923, and eczema included under this term in 1933 (Sulzberger, Wise). When Georg Rajka (1925–2013) began his work in the 1950s, AD attracted little attention. His doctoral thesis set the foundation for a lifelong dedication to the disease. He made major contributions to clinical characterization, itch research, and understanding of allergic mechanisms in AD. Key discoveries during his lifetime—the identification of IgE (1966), the Th1/Th2 paradigm (1988), and the presence of IgE receptors on epidermal dendritic cells—transformed the field. The recognition of filaggrin mutations (2006) clarified the role of barrier dysfunction and established the modern triad of dry skin (barrier defect), allergy (Th2 skewing), and psychoneurogenic inflammation (itch) as the basis of AD pathophysiology. Therapeutic progress was slow for decades after the introduction of topical corticosteroids (1952), followed by calcineurin inhibitors around 2000. Since 2016, biologics such as dupilumab and kinase inhibitors have ushered in a new era of targeted treatment. Rajka was not only a researcher but also a visionary organizer. From 1979, he established the Atopic Dermatitis Symposia, where key milestones such as the Hanifin–Rajka Diagnostic Criteria and SCORAD were presented. These meetings evolved into the Georg Rajka Symposium on Atopic Dermatitis, held worldwide—from Davos (1999) to Doha (2024) and Melbourne (2025). The International Society of Atopic Dermatitis (ISAD), founded in 2012, continues his legacy, awarding the Georg Rajka Medal since 2014 to outstanding young researchers, traditionally presented by his wife, Susanne Rajka. Despite remarkable advances, AD remains partly enigmatic, and the pursuit of a true cure continues—a reflection of Georg Rajka's enduring spirit of inquiry.

KL.5
PRIMARY PREVENTION OF ATOPIC DERMATITIS

Carsten FLOHR
Chair in Dermatology & Population Health Science - St John's Institute of Dermatology - King's College London, London, United Kingdom

Atopic dermatitis (AD) is a chronic, relapsing inflammatory skin disorder that often begins in early childhood and significantly impacts quality of life. Primary prevention aims to reduce the risk of disease development in predisposed individuals, especially those with a family history of atopy. This lecture explores current evidence and strategies for the primary prevention of atopic dermatitis, with a focus on modifiable environmental and lifestyle factors. Key topics include the role of skin barrier enhancement through early and consistent emollient use in neonates, the influence of microbiome development, and the timing and diversity of dietary introductions during infancy. The lecture also discusses the potential impact of maternal diet and probiotic use during pregnancy and lactation, as well as the avoidance of environmental triggers such as tobacco smoke and air pollution. Through a critical review of the current evidence, we will examine which interventions show the most promise

and which remain inconclusive. The aim is to equip healthcare providers with practical, evidence-based recommendations to counsel families on risk-reducing strategies for AD in early life, ultimately contributing to a broader approach to allergic disease prevention.

KL.6
GEORG RAJKA: CONTRIBUTIONS TO UNDERSTANDING AD, PRURIGO, AND ITCH

Laurent MISERY[1,2]

[1] French Expert Center on Pruritus and Department of Dermatology, Venereology and Allergology, University Hospital of Brest, Brest, France, [2] French Society of Human Sciences on the Skin

Fred Wise (1881-1950) and Marion Sulzberger (1895-1983) are often credited with introducing the term atopic dermatitis (AD) to dermatology in 1933. However there were several precursors who describe this disease under other names. Among them, Ernest Besnier (1831-1909) described diathesis prurigo, which would later be named Besnier prurigo from 1892 to the 1970s. In 1980, Jon Hanifin (1939-) and Georg Rajka (1925-2013) proposed the first widely used set of diagnostic criteria for AD. Hanifin and Rajka also recognized several synonyms for AD such as atopic eczema, Besnier prurigo, and infantile eczema. In 1975, Georg Rajka made clear that he understood AD as a skin disease due to an abnormal pruritus threshold with secondary inflammation and barrier defects. His theory, based on experiments using trypsin as itch elicitor is a more elaborated version of Jacquet's theory of 1904 that pruritus precedes inflammation in AD. With the knowledge we have today, these ideas take on a special flavour. I would like to thank Prof. Alain Taieb for bringing this matter to my attention and for providing me with historical documents.

KL.7
SKIN METAGENOMICS AND METATRANSCRIPTOMICS TO ADVANCE ATOPIC DERMATITIS RESEARCH

John COMMON[1,2]

*[1]Newcastle University, [2]A*STAR Skin Research Labs*

Atopic dermatitis is a complex, inflammatory skin condition shaped not only by immune dysregulation and barrier impairment but also by the dynamic activity of the skin microbiome. Metagenomics has mapped compositional shifts in skin communities relevant to AD, but DNA-based profiles provide only a static view of potential function. To capture real-time microbial activity, we established a robust, non-invasive workflow that couples skin metagenomics with metatranscriptomics and applied it across multiple body sites in healthy volunteers. This dual-omic approach revealed marked divergence between genomic representation and transcriptional output, demonstrating that active microbes and pathways cannot be reliably inferred from DNA abundance alone. We observed site-specific transcriptional programs and in vivo activity, including metabolic flux shifts, osmotic-stress responses, and bacteriocin-mediated microbe–microbe interactions, that were not evident from metagenomic data alone. These healthy-skin data define a functional baseline and technical foundation for future studies in AD. By integrating DNA (who is present) with RNA (what they are doing), this framework is poised to uncover activity signatures associated with disease state, flare dynamics, and treatment response, and to inform biomarker discovery and targeted microbiome interventions. Moving beyond descriptive surveys, integrated metagenomics–metatranscriptomics provides a practical route to translate skin microbiome science toward precision approaches in AD without over-interpreting composition alone.

KL.8
CANNABINOIDS IN ATOPIC DERMATITIS - EXPLORING NEW TREATMENT HORIZONS

JiHyun LEE

Department of Dermatology, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, South Korea

Therapeutic interest in cannabinoids has increased owing to their modulation of the cutaneous endocannabinoid system. Accumulating evidence suggests potential efficacy across diverse inflammatory dermatoses—including psoriasis, acne, and pruritus—and possibly in select cutaneous malignancies. This talk will introduce the therapeutic effects of key cannabinoids—including cannabidiol (CBD), cannabigerol (CBG), and cannabichromene (CBC)—in inflammatory skin diseases, particularly atopic dermatitis (AD). CBD, a Cannabis sativa component, engages the endocannabinoid system. In DNCB-induced AD (BALB/c, NC/Nga), topical CBD (0.7/7 mg/kg) improved scores, thinned epidermis, reduced mast cells and suppressed TSLP, IL-4/13 and IL-6, IL-1β, IL-18/33. CB2R, elevated in human/murine AD, declined after treatment. Blots showed inhibition of JAK1/2, TYK2, STAT1/3/6 and NF-κB; in NC/Nga CBD also reduced pruritus, NLRP3, and PAR2, indicating convergence on JAK/STAT and PAR2–NF-κB. CBG dampened CCL26, IL1B, IL6, TNF in vitro and improved AD in vivo with broad cytokine reductions and modulation of JAK1/2, TYK2, STAT1/2/3/6 and NF-κB. CBC (0.1 mg/kg) improved BALB/c AD, lowering severity, thickness, mast cells, and cytokines, with reduced JAK1/2 and STAT1/2/3/6. Taken together, these cannabinoids (CBD, CBG, and CBC)are promising therapeutics for AD modulation; clinical evaluation is needed to substantiate benefit and operationalize precision use.

KL.9
INFECTIOUS COMPLICATIONS AND COMORBIDITIES OF AD

Andreas WOLLENBERG

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AD patients are more susceptible to secondary skin infections, which tend to generalize. Staph. aureus has the highest clinical relevance, but Malassezia furfur and Herpes simplex virus are also important. The Th-2 dominated inflammatory microenvironment formed by thymic stromal lymphopoietin (TSLP), IL-4 and IL-13 downregulates several antimicrobial peptides of the skin (e.g. cathelicidin LL-37, dermcidin and human b-defensins HBD-1, HBD-2 and HBD-3). Modern sequencing techniques have broadened the understanding of the microbial key players in AD as being part of the larger skin microbiome. The Staph. aureus-driven loss of diversity of the cutaneous microbiome is significantly associated with flares of AD, but not if patients have followed a proactive therapy regimen before the flare. In up to 90% of AD patients, even the non-lesional skin is extensively colonized by S. aureus. This has encouraged the use of topical antiseptics or augmenting the bathing routine with potassium permanganate or common household bleach. Many commensal bacteria, such as S. epidermidis, produce inhibitors that decrease S. aureus growth. S. aureus is a major trigger of AD, as inflammation is sustained and augmented through the release of exotoxins with superantigenic properties. These superantigens enhance T-cell activation in the skin, leading to an increased expression of IL-31. Scratching favours binding of S. aureus to keratin, and ceramidase produced by S. aureus worsens the skin barrier defect. Impetiginization is the clinical hallmark of the human body's fight against the maximal dysbalance of the skin microbiome. Malassezia furfur is a lipophilic yeast detectable as

a commensal in more than 90% of all human beings. Several AD patients are mounting Th2 responses against this agent. There is a clinically relevant cross-reactivity between the fungal and the human superoxide dismutase, nicely explaining a "molecular mimicry" mechanism as basis for prolonged immune responses in some patients. Though there is no evidence for recommending a general anti-fungal treatment of AD patients, antifungal therapy shows beneficial effects in AD patients with a head-and-neck distribution of their AD lesions and a detectable IgE-mediated sensitization against Malassezia furfur. Disseminated viral infections of eczematous skin lesions with the Herpes simplex virus known as eczema herpeticum are a hallmark of an underlying AD. The depletion of plasmacytoid dendritic cells, a failure of upregulation of the antimicrobial peptide LL-37 and an unmasking of the entry receptor nectin-1 by lesional spongiosis are considered relevant factors for the pathogenesis of eczema herpeticum. Almost all eczema herpeticum patients belong to the extrinsic subtype of AD. Similar disseminated infections with the coxsackie virus known as eczema coxsackium or with the vaccinia virus known as eczema vaccinatum are somewhat similar but clinically distinguishable. The comorbidities of AD patients are clinically distinctive and largely based on shared factors in the pathogenesis of these diseases, which is predominantly in association with a Th-2 skewed immune system. The association of AD with allergic rhino-conjunctivitis and allergic bronchial asthma is known since many years and the basis of the classical atopic triad. Large scale analysis of huge patient cohorts has identified many less known associated skin diseases: Vitiligo, chronic idiopathic urticaria, bacterial skin infections, viral Infections, alopecia areata, allergic contact dermatitis and toxic-irritative dermatitis are cutaneous comorbidities. Psychic disorders such as depression, anxiety disorders, ADHS and suicidality have also been shown, as well as eosinophilic oesophagitis, polyposis nasi, inflammatory bowel disease, food allergy, oral allergy syndrome, rheumatoid arthritis and ankylosing spondylitis. The dermatologist caring for AD patients must be trained to recognize the key symptoms of relevant infectious complications, as well as those of relevant comorbidities of AD to properly diagnose and either treat them himself or refer his patients to an appropriate specialist.

KL.10
MANAGING CHILDREN WITH MODERATE-TO-SEVERE AD & COMPLICATIONS OF THERAPY

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Moderate-to-severe pediatric atopic dermatitis (AD) remains a therapeutic challenge despite advances in pathophysiological understanding. Emollients and topical corticosteroids remain the backbone of therapy, but new topical PDE4 and JAK inhibitors provide corticosteroid-sparing options. Biologics targeting IL-4Rα and IL-13 have demonstrated robust efficacy and reassuring safety in pediatric populations. Adverse events such as dupilumab-associated conjunctivitis or facial erythema appear less frequent in children than in adults. Agents blocking IL-31 or OX40/OX40L represent promising future options, though pediatric safety data are still very limited. Oral JAK inhibitors show rapid efficacy in adolescents, but long-term safety requires confirmation. Shared decision making with families and clear treatment goals—including pruritus relief, sleep improvement, and quality of life—are central to management. A treat-to-target framework offers structured, individualized, and goal-oriented care for children with AD.

KL.11
AD IN AFRICA: ADVANCING RESEARCH, CARE, AND EQUITY IN DIVERSE SKIN TYPES

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Atopic Dermatitis (AD) (Amahumani -Uganda; i-Eczema- SA; Hazatra- Malagasy; Kiguma- Tanzania) is a chronic inflammatory skin condition affecting millions globally, but its impact on African populations remains underrepresented in research, clinical training, and policy frameworks. This presentation addresses the unique challenges and opportunities surrounding AD in Africa, focusing on inclusive dermatological research, culturally competent care, and equitable health systems. We examine the clinical manifestations of AD in richly pigmented skin, explore systemic barriers to diagnosis and treatment (including the role of social media in perpetuating misdiagnosis and disinformation), and emphasize the urgent need for African-led research initiatives. We will present significant gains made through efforts by organizations such as the ISAD, ISD, and IEC in bridging the global gap. Through case studies and policy analysis, we propose actionable strategies for international dermatologists and stakeholders to foster equitable skin health across the continent. By reframing AD as a global equity issue, this session calls for collaborative efforts to ensure that skin tone no longer determines the quality of care received.

INVITED LECTURE ABSTRACTS (IL)

IL.1
AD PRESENTATIONS IN INBORN ERRORS OF IMMUNITY

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Inborn errors of immunity were historically known as primary immunodeficiencies (PID), given their dominant presentation of recurrent infections. However, several of these PID were also noted to present with immune dysregulation such as autoimmunity, autoinflammatory, lymphoproliferation and severe allergy. Use of next generation sequencing (NGS) has permitted the identification of a growing number of IEI, whose number has now reached over 550 in the 2024 classification from the International Union of Immunological Societies (IUIS) Committee on Inborn Errors of Immunity. A proposed classification to describe a subset of IEI known as primary atopic disorders (PAD) was coined to highlight allergic diseases (including AD) caused by monogenic defects affecting the immune system and skin epithelial barrier. More than 50 monogenic PAD are categorized by diverse immune dysregulation mechanisms, such as alterations in cytokine signaling, T cell receptor function, mast cell activation, and skin barrier integrity. Increased awareness of IEI revolves around the chronologic structured and precise documentation of symptoms and signs based on history and physical examination. A family history of IEI serves as a valuable warning sign that must prompt consideration of an underlying monogenic immune disorder. Early diagnosis not only ends the diagnostic peregrination for the affected families and individuals but also provides them with the opportunity to receive timely genetic counselling. Additionally, if diagnosed early, some PAD can be cured with hematopoietic stem cell transplantation (HSCT) or gene therapy, and others can be appropriately managed using novel or repurposed therapeutics that precisely target the defective molecular pathways.

IL.2
CAN PERIPHERAL T CELL IMMUNOPHENOTYPES IN AD BE USEFUL TO PREDICT SYSTEMIC TREATMENT RESPONSE?

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In the peripheral blood various T cell subsets can be determined by modern flow cytometric techniques and can reflect the status and/or activity of a systemic disease. Atopic dermatitis has a strong T cell immunologic background presenting often as a T cell dysregulated disease. Accordingly, pathognomonic T cell profiles have been demonstrated in lesional skin, but also systemically. We determined deviations of various peripheral T cell subsets in AD patients using Cytof. 39 surface markers considering all immune cell lineages in the blood identified by using an unbiased, automated cell clustering algorithm (ImmunoClust) frequencies of 70 cell clusters and 103 linked populations. In AD severe 49 populations and in AD mild 20 populations were found ($p < .01$) in comparison with healthy donors. Most of them were attributed to the CD4+, CD8+ or NK lineage. Conventional multicolor flow cytometry confirmed a characteristic peripheral T cell imbalance in untreated AD: reduced TH1, TFH1, and effector memory (TEM) subsets, accompanied by decreased Tregs, but marked increases in Th2, Th17, CLA+, OX40+, and TEMRA populations. Systemic Th2-targeted therapy reset this dysregulated repertoire, with early reduction of CLA+ OX40+ T cells, a subset closely linked to skin-homing and disease activity. The findings demonstrate that peripheral T cell immunophenotypes capture the systemic footprint of AD and are modulated by targeted therapy. Systemic shifts of T cell subsets provide the basis for the development of predictive biomarkers of treatment response in AD and a possible provision of clinical implications.

IL.3
BASOPHILS: A PARADIGM OF SKIN NEUROIMMUNE CROSSTALK

Fang WANG
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Basophils, though rare among circulating leukocytes, play a disproportionately important role in shaping neuroimmune interactions. Beyond their classical functions in allergic inflammation, basophils release histamine, cytokines, and lipid mediators that directly influence neuronal activity and pain signaling. Conversely, neural inputs modulate basophil activation and trafficking, establishing a bidirectional crosstalk between the nervous and immune systems. This dynamic interaction has emerging relevance in conditions such as chronic itch, asthma, atopic dermatitis, and neuroinflammatory disorders. In atopic dermatitis (AD), basophils drive acute itch flares through a leukotriene-dependent pathway that bypasses the classical mast cell-histamine axis, establishing a direct basophil-neuron signaling circuit. Beyond sensory pathways, basophils integrate inputs from the sympathetic nervous system (SNS), where norepinephrine enhances basophil motility to amplify inflammation. These findings reposition basophils from peripheral bystanders to central hubs of neuroimmune communication in the skin.

IL.4
CLINICAL AND MOLECULAR HETEROGENEITIES OF ATOPIC DERMATITIS

Wei LI
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Atopic dermatitis (AD) is a highly heterogeneous diseases with significant clinical and molecular variations among different ethnics, ages, and body sites. By utilizing a non-selective registry for AD, we revealed distinct clinical manifestations of Chinese AD patients, which are characterized by substantial proportion of atypical AD. Good responses to new systemic treatments, including dupilumab and Jak inhibitors, confirmed that Chinese AD patients are also Th2-inflammation dominant. However, the face and neck region of AD patients responded less well to both dupilumab and Jak inhibitors, which may be due to the Th22/Th17 inflammatory infiltrations in these body sites. We revealed that a photoreceptor, OPN3, was specifically increased in the skin lesion of AD compared to psoriasis. OPN3 induced the production of IL-36γ, IL-8, and TNF-α by keratinocytes upon white/blue light exposure, which exaggerated the skin inflammation of mouse model of AD, but not psoriasis. Blocking of OPN3 attenuated the visible light-exaggerated skin inflammation of AD, providing a strategy for clinical treatment of facial dermatitis.

IL.5
REMEMBERING MY FIRST GEORG RAJKA SYMPOSIUM IN 1988

Roberto TAKAOKA
Dermatology, University of Sao Paulo Medical School Hospital, São Paulo, Brazil

The Third International Symposium on Atopic Dermatitis, held from May 29 to June 1, 1988, in Oslo, Norway, featured discus-

sions on various aspects of atopic dermatitis (AD). Presentations and participants were primarily from Northern Europe, Japan, and the United States. Key themes included: Early Onset AD: Presentations addressed the diagnosis and management of AD in the first six months of life, including differential diagnosis from other dermatological conditions. / Allergens and Immune Responses: Several studies investigated the role of inhalant and food allergens in exacerbating AD, along with the involvement of IgE, T cells, and various cytokines. / Skin Barrier Function: Research explored the compromised skin barrier in AD, focusing on lipid composition, water retention, and transepidermal water loss. / Treatment Approaches: The symposium covered various therapies, including topical steroids, cyclosporin, phototherapy, and dietary interventions. Behavioral therapy for managing scratching was also discussed. / Specific Factors: Associations between AD and fungal infections, house dust mites, sweat, and other conditions such as ichthyosis vulgaris were examined.

IL.6
TOWARDS PERSONALISED THERAPY AND POTENTIAL DISEASE MODIFICATION

Peter SCHMID-GRENDELMEIER
Christine Kühne-Center for Allergy Research and Education, Medicine Campus, Davos, Switzerland

Abstract summary not available at the time of printing

IL.7
NEW SYSTEMIC THERAPIES FOR AD

Amy S. PALLER
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Advanced systemic therapies for atopic dermatitis - the biologics and Janus kinase inhibitors - have increasingly become available to provide rapid, effective, and durable control for patients across age groups, reducing the need for immunosuppressant medications and making use of systemic corticosteroids contraindicated other than rarely as bridging therapy. Currently, only dupilumab is available for patients under 12 years of age, but studies are ongoing for all currently available options in pre-adolescents, expanding future options. OX40/OX40 ligand inhibitors are likely the next biologics for AD, targeting the Langerhans-T cell interaction and memory T cells, potentially increasing durability. Bi- and even tri-specific antibodies are in trials, broadening targeted effects. However, many questions remain about best practices for maintenance use of ASTs, administration of live vaccines, ability to modify disease course and the risk/severity of comorbidities, particularly when biologics are discontinued, how to develop painless administration of biologics or similarly targeted oral immunomodulation, and the short- and long-term risks of JAK inhibitors. Finally, for many parts of the world these expensive new medications are simply unaffordable for the majority of patients with atopic dermatitis, leaving the challenge of access and affordability.

IL.8
SKIN LIPIDS IN THE DEVELOPMENT OF ATOPIC DERMATITIS AND FOOD ALLERGY

Adrian LOWE, Natalie CHANG
CFAR, Melbourne, Australia

Background: An impaired skin barrier plays an important role in the development of atopic dermatitis (AD) and possibly food allergy. While lipids are key structures of the skin barrier, there is limited data on the role of neonatal skin lipid composition in development of AD, and even less on their role in the development of food allergy. Methods: Skin-lipid samples were collected from the forearms of 99 children with a family history of allergic diseases at baseline (median=3 days) of age and 6-weeks of age using skin tape strips. The levels (pmol/mg) of skin lipids were measured using LC-MS/MS. At 1-year, AD was defined using the UK Working Party Criteria. Food allergy was defined using sensitisation, oral food challenges and reaction history. Logistic regression models were used to account for confounding. Results: Higher levels of total protein bound ceramides (POS) at 6-weeks were associated with increased risk of AD (adjusted OR=0.52, 95%CI=0.28-0.96 per 1-SD increase) but not at baseline (aOR=0.75, 95%CI=0.45-1.27). In contrast, higher levels of esterified ω-hydroxy fatty acid sphingosine (EOS) at baseline were associated with reduced risk of developing food allergy (OR=0.39, 95%CI=0.15–1.00), but not at 6-weeks of age (aOR=1.17, 95% CI=0.53-2.58). Conclusion: POS and EOS ceramides in infants may be useful biomarkers for identifying children at high risk of developing AD and food allergy. However, these associations appear to be dependent on both the child's age and the lipid class. These results may inform screening programs and primary targeted prevention strategies.

IL.9
RUNNING REMOTE ECZEMA TRIALS - OPPORTUNITIES AND RISKS

Kim S. THOMAS
Centre of Evidence Based Dermatology, School of Medicine, University of Nottingham, United Kingdom

Randomised controlled trials are fundamental for evidence-based healthcare, but they can be challenging to deliver and don't always answer questions that are most important to patients and healthcare professionals. Clinical trials are expensive and time consuming to conduct. They can also have a high environmental impact. As such, it is helpful to explore new ways of working that can answer multiple questions in a timely and efficient way. Advances in technology, innovative trial designs and collaborative working have all been proposed as ways of making clinical trials more efficient. This talk will explore latest developments in the drive to identify efficiencies in the design and conduct of eczema trials. It will explore the advantages and disadvantages of conducting remote (online) trials, using the Rapid Eczema Trials project as an example. The Rapid Eczema Trials project is a citizen-science initiative that is helping to support people with eczema to prioritise, design and run high-quality online trials that answer questions about the self-management of eczema. Multiple trials are being conducted according to a single master protocol, measuring outcomes using the HOME core outcome set and remote photo assessment of eczema severity using AI technology (EczemaNet).

IL.10
ITCH AND PAIN IN ATOPIC DERMATITIS AND PRURIGO NODULARIS

Laurent MISERY
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Atopic dermatitis and prurigo nodularis (or chronic prurigo) are both Th2-related diseases. However prurigo nodularis is an autonomous neuroinflammatory disease deeply associated with neural sensitization to itch, with specific clinical symptoms, and is not consecutive to atopic dermatitis in most cases. Although pruritus and pain are usually antagonistic (pain inhibits itch), they frequently coexist in these two conditions. This is due to abnormalities in the skin barrier, but mainly to scratching lesions

and the neuropathic nature of pruritus and skin pain. Pruritus and skin pain have a major impact on quality of life and are often the primary concern for patients. They contribute to sleep disorders, depression and anxiety, which in turn exacerbate these unpleasant sensations. That is why it is very important to break the vicious cycle of pruritus-scratching and effectively treat atopic dermatitis and chronic prurigo.

IL.11
KNOWN AND NOVEL REGULATORS OF ITCH CYTOKINE IL-31 IN TYPE 2 DISEASE

Marlys FASSETT
University of California San Francisco, San Francisco, United States of America, San Francisco, United States of America

Interleukin-31 (IL-31) is a potent itch-inducing cytokine commonly associated with type 2 inflammation that, when unchecked, can cause significant skin pathology. However, whereas type 2 CD4 T cells are the major source of IL-31 in skin, IL-31 is not always co-expressed with canonical type 2 cytokines IL-4 and IL-13. In fact, IL-31-expressing T cells are rare. We also recently discovered that IL-31-responsive sensory neurons negatively regulate type 2 inflammatory cells in chronic allergic dermatitis, affirming that IL-31 does not conform to the type 2 cytokine program. Across the landscape of a type 2 inflammatory response, IL-31's unique biological functions (itch inducer, negative regulator of type 2 inflammatory cells) may necessitate distinct mechanisms of IL31 regulation. Therefore, we hypothesized that type 2 disease-relevant discoverable regulatory factors influence IL31 production in type 2 CD4 T cells by modifying IL31 gene expression. A pooled CRISPR screen we performed identified multiple candidate mouse Il31-regulator genes. Reassuringly, screen hits included genes that encode factors in pathways known to be required for T cell activation and Th2 differentiation. Others appear to regulate IL31 independent of other type 2 cytokine genes, offering the potential for selective modification of IL31-dependent pathology in animal models and type 2 diseases.

IL.12
SKIN ENVIRONMENTAL AND MICROBIAL CROSSTALK IN AD PATHOGENESIS

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Defects in skin barrier function, type 2 inflammation, and dysbiosis of the microbiota are key mechanisms in the pathogenesis of atopic dermatitis (AD). Among these, skin microbiota dysbiosis plays a crucial role in the development and progression of AD. It can be both a cause and a consequence of dermatitis. Early research on the microbiota in AD primarily focused on correlational analyses between microbial structural changes and the disease, revealing decreased diversity of the skin microbiota and increased colonization of S. aureus as the dominant bacterium in AD patients. Further studies on bacterial interactions demonstrated that skin commensals, represented by S. epidermis, regulate the growth and virulence of S. aureus through mechanisms such as quorum sensing and antimicrobial peptide secretion, thereby ameliorating AD inflammation. Subsequent functional investigations identified significant alterations in the metabolic activity of the skin microbiota in AD patients. Microbial metabolites such as indole-3-carboxaldehyde (IAId) and short-chain fatty acids (SCFAs) were found to modulate inflammation, barrier function, and itching, contributing to the improvement of AD. Clinical research on targeted interventions using single bacterial strains is also advancing, including studies on ShA9, FB-401 (a consortium of three R. mucosa strains), and Nitrosomonas eutropha B244 (an ammonia-oxidizing bacterium). Changes in the skin microenvironment, such as the type 2 inflammatory milieu and alterations in sebaceous gland activity, act as upstream factors influencing skin microbiota functionality in AD patients. However, the mechanisms affect the microbiota are still under active investigation. Drawing on our research findings, we will provide a brief overview integrating the above aspects.

IL.13
PREDICT TO PREVENT - HARNESSING THE SKIN MICROBIOME TO TRANSFORM ATOPIC DERMATITIS CARE

Claudia TRAIDL-HOFFMAN[1,2,3], Robin ROHAYEN[1], Matthias REIGER[1,3], Claudia HÜLPÜSCH[2], Avidan Uriel NEUMANN
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The skin microbiome plays a pivotal role in the onset, severity, and chronicity of atopic dermatitis (AD), yet its clinical translation has long been hampered by methodological and analytical challenges. In a series of studies, we have advanced methods to accurately capture, quantify, and interpret skin microbiome data. We developed approaches to correct extraction bias based on bacterial morphology and established MicrobIEM, a user-friendly tool for rigorous decontamination of low-biomass datasets. By combining next-generation sequencing with targeted qPCR, we demonstrated that Staphylococcus aureus not only dominates relative abundance in AD but also drives bacterial overgrowth, particularly in severe disease. We further linked microbial diversity, S. aureus burden, and host cofactors with AD severity, and showed in a randomized controlled trial that baseline S. aureus abundance, tightly associated with skin pH, predicts worsening of AD severity. Beyond pathogenic overgrowth, we identified protective microbe–lipid interactions as key determinants of barrier integrity: Staphylococcus hominis was found to directly modulate epidermal lipid metabolism and counteract type 2 inflammation, highlighting the therapeutic potential of commensal bacteria. These methodological and clinical insights culminated in translational proof-of-concept studies: in a longitudinal observational cohort, we demonstrated that baseline microbiome composition predicts the risk of severe radiodermatitis with striking accuracy, introducing the principle of "predict to prevent" in skin diseases. Most recently, strain-resolved analyses revealed genomic and functional divergence of S. aureus in AD compared with healthy skin, underscoring the relevance of functional microbiome profiling for therapeutic decision-making. Together, these advances establish the skin microbiome not only as a biomarker source but also as a predictive and actionable tool. By identifying host–microbiome interactions such as skin pH and lipid–commensal networks as modifiable drivers of disease, microbiome-informed diagnostics will soon guide therapy selection, open windows for disease modification, and ultimately transform atopic dermatitis care from reactive treatment to personalized prevention.

IL.14
DISEASE-SPECIFIC COMORBIDITIES IN ATOPIC DERMATITIS

Katrina ABUABARA
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The conceptualization of atopic dermatitis has shifted from a skin disease of children to a systemic disorder affecting men and women of all ages. Our objective is to review the current state of the literature on non-infectious comorbidities of atopic dermati-

tis. Concepts from epidemiology including differences between absolute, relative, and attributable risk will be used to evaluate the literature on atopic/ immune-mediated, cardiometabolic, and neurocognitive comorbidities among children, adults, and older adults. Among children, atopic conditions constitute the highest relative risks, but mental health conditions and substance use have the highest absolute and attributable risk. Among adults, autoimmune conditions have the highest relative risk, but mental health conditions and cardiometabolic conditions have the highest absolute and attributable risk. Amongst older adults, autoimmune conditions have the highest relative risks, cardiometabolic conditions have the highest absolute risks, and skin infections have the highest attributable risk. Current guidelines, strategies for talking to patients about comorbidity risk, and suggestions for comprehensive management of comorbidities will be discussed.

IL.15
PAEDIATRIC AD - SYNDROMES AND MIMICKERS

Sandipan DHAR
Department of Pediatric Dermatology, Institute of Child Health, Kolkata, India

Atopic dermatitis (AD) is the most prevalent chronic inflammatory dermatosis of childhood, yet its diagnosis is frequently challenged by overlapping phenotypes and clinical mimics. Paediatric atopic dermatitis can be mimicked by seborrheic dermatitis, psoriasis, contact dermatitis, tinea, scabies, and viral exanthems, while superimposed bacterial or viral infections may further confound diagnosis. Beyond these mimics, several genetic and immunodeficiency syndromes including hyper-IgE syndrome, Wiskott-Aldrich syndrome, Netherton syndrome, and Omenn syndrome, manifest with AD-like eczematous eruptions whilst being accompanied by systemic features such as recurrent infections, hematologic abnormalities, failure to thrive, or hair and nail abnormalities.In addition to syndromic mimics, AD itself is associated with a broader spectrum of comorbidities. Children and adults with atopic dermatitis are predisposed to autoimmune diseases, gastroesophageal reflux, and significant psychological distress including sleep impairment, anxiety, and depression. Furthermore, AD is closely linked with other atopic conditions such as asthma and allergic rhinitis.Filaggrin gene mutations, a major predisposing factor, not only contribute to barrier dysfunction in AD but also increase susceptibility to ichthyosis vulgaris and related disorders.This presentation will delineate clinical red flags, diagnostic strategies, and molecular insights that aid in distinguishing true paediatric AD from its syndromic and non-syndromic mimics, while also highlighting the systemic associations that impact long-term outcomes.Early recognition, multidisciplinary evaluation, and timely genetic or immunological workup are critical to optimize outcomes and prevent missed diagnoses with life-altering implications.

IL.16
CANINE ATOPIC DERMATITIS. PRESENTATIONS AND MANAGEMENT

Rebecca BASSETT
Melbourne Veterinary Specialist Centre, Melbourne, Australia

Ongoing research continues to reveal the complex and multifactorial nature of atopic dermatitis in dogs, with genetic differences between breeds contributing to the diverse ways the disease presents. Because of this variability, there is no single “one-size-fits-all” approach to managing canine atopy. This understanding has enabled veterinary dermatologists to tailor treatment more effectively, using options that include therapies to restore the skin barrier as well as newer targeted treatments that address allergy-related itch and inflammation. The purpose of this talk is to highlight the wide range of clinical presentations seen in canine atopy and to emphasize the need for individualized, multimodal management strategies.

ORAL LECTURE ABSTRACTS (OL)

OL.1
COMPARATIVE TRANSCRIPTOMIC PROFILING OF ASIAN ATOPIC DERMATITIS AND PSORIASIS REVEALS CANDIDATE MOLECULAR TARGETS FOR PRECISION THERAPY

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Atopic dermatitis (AD) and psoriasis are chronic inflammatory skin diseases with distinct immunological and molecular characteristics. However, in Asian populations, overlapping or atypical clinical features often complicate differential diagnosis. This study aimed to characterize disease-specific gene expression profiles and biological pathways in lesional skin from Asian patients with AD and psoriasis to identify potential diagnostic markers and therapeutic targets. Transcriptomic profiling was performed on skin biopsies from six AD patients, seven psoriasis patients, and eleven healthy controls (HCs). Differentially expressed genes (DEGs) were identified by comparison with HCs, and selected genes were validated by immunofluorescence staining. Functional enrichment analysis revealed distinct immune signatures, with Th2-related pathways enriched in AD and Th17-related pathways in psoriasis. Pathways related to keratinization and epidermal differentiation were commonly downregulated, suggesting a shared inflammatory component. Both AD and psoriasis showed significant downregulation of filaggrin (FLG; AD: P=0.0079, psoriasis: P<0.001) and loricrin (LOR; AD: P=0.0033, psoriasis: P=0.0021). In contrast, serine protease inhibitor Kazal-type 5 (SPINK5) expression was elevated in psoriasis (P=0.0010) but reduced in AD (P=0.0214) compared to HCs. Serine family B member 4 (SERPINB4) was significantly upregulated in both AD and psoriasis (both P<0.0001). These transcriptomic findings were supported by immunofluorescence staining, which confirmed disease-specific expression patterns of FLG, LOR, SPINK5, and SERPINB4Taken together, these findings highlight molecular signatures that distinguish AD and psoriasis in Asian skin and may support the development of targeted diagnostic and therapeutic approaches.

OL.2
HIGH-DIMENSIONAL IMMUNE PROFILING OF ATOPIC DERMATITIS REVEALS A DYSFUNCTIONAL OX40+ REGULATORY T CELL SUBSET

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Atopic dermatitis (AD) features eczematous lesions and significant pruritus. While Immune mechanisms in AD are increasingly understood, the precise role and functional state of regulatory T cells (Tregs) remain controversial. We aimed to dissect the immune dysregulation underlying AD, focusing on the heterogeneity and functional states of Tregs, using high-dimensional single-cell analysis. Utilizing a 39-parameter cytometry by time-of-flight (CyTOF) panel, we analyzed PBMCs from 48 AD patients and 48 healthy controls. Cutaneous lymphocyte-associated antigen (CLA) was specifically examined as a well-established skin-homing marker, enabling the identification of Treg subsets with the potential to migrate from the blood to the skin. Our results were validated using public single-cell RNA sequencing datasets of PBMCs and skin, and immunofluorescence staining of skin lesions. Our findings reveal a significant increase in circulating Tregs in AD patients, accompanied by alterations in the expression of markers associated with their function and activation status. We observed elevated levels of CLA and activation markers such as Ki-67, OX40, CRTH2, and HLA-DR. Notably, we identified a distinct subset of CLA+ Tregs that highly express OX40, which is known to impair Treg function, and CRTH2, a marker involved in type 2 immunity. The frequency of this OX40+ CRTH2+ subset correlated with disease severity, suggesting that these CLA+ Tregs are functionally compromised in AD, and may contribute to the inefficient suppression of type 2 immune responses. These results provide novel insights into the immunopathology of AD and highlight the OX40+ Treg population as a key driver of immune imbalance. Our findings provide a strong mechanistic rationale for emerging OX40-targeted therapies, supporting precision medicine approaches in AD treatment.

OL.3
KERATINOCYTE-SPECIFIC PROGRANULIN DEFICIENCY IN PSORIASIFORM OR AD INFLAMMATION

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Lysosomes play a pivotal role in inflammation, and progranulin (PGRN), a multifunctional growth factor, regulates lysosomal function and is associated with neutrophilic inflammation. PGRN has been implicated in inflammatory diseases, diabetes, and obesity-related adipokine regulation. Although PGRN is known to modulate immune responses, its specific role in keratinocytes during psoriasis (PsO) or atopic dermatitis (AD)-like inflammation remains unclear. To investigate the function of keratinocyte-derived PGRN in PsO and AD—both of which are commonly associated with diabetes and obesity as comorbidities

Keratinocyte-specific PGRN knockout (KO) mice by crossing floxed PGRN mice with K14-Cre transgenic mice. Age- and sex-matched wild-type (WT) littermates were used as controls. PsO- and AD-like skin inflammation was induced by daily topical application of imiquimod (IMQ), DNFB, or MC903 (vitamin D3 analog) to the shaved dorsal skin for 5 to 13 consecutive days. Clinical severity was evaluated based on erythema, excoriation, scaling, and skin thickness (induration). Our results demonstrate that PGRN-deficiency in keratinocytes significantly aggravate PsO not AD skin pathology, by enhancing the expression of pro-inflammatory cytokines, including TNF-α, IL-6, and IL-1β. These findings suggest that targeting keratinocyte-derived PGRN could offer a novel therapeutic approach for psoriasis and related immune diseases. For AD, combining with diet modulation should be further explored.

OL.4
BASOPHIL RESPONSE PATTERNS REVEAL DIVERGENT EFFECTS OF DUPILUMAB AND ABROCITINIB IN ATOPIC DERMATITIS

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Basophils have been increasingly recognized as a significant contributor to atopic dermatitis (AD) pathogenesis. While dupilumab and abrocitinib are approved therapies for AD, their effects on basophil characteristics and functional responses remains poorly understood. To investigate the immunomodulatory effects of dupilumab and abrocitinib on basophils in AD. This prospective, single-center observational study included 113 participants: 24 healthy controls (HCs) and 89 patients with AD. Among the AD cohort, 52 received systemic treatment (dupilumab: n = 25; abrocitinib: n = 27). Disease severity was assessed using the EASI and PP-NRS. Peripheral blood samples were collected at baseline and after 12 weeks of therapy. Flow cytometry was used to analyze surface markers on basophils. Functional assays were performed following stimulation with fMLP and anti-IgE. Compared to HCs, AD patients exhibited increased peripheral basophil counts and elevated expression of FcεRIα, MRGPRX2, and CD63 ($p < 0.01$). Basophils from AD patients showed augmented MRGPRX2 induction upon fMLP or anti-IgE stimulation. Both treatments significantly improved clinical scores (EASI and PP-NRS). Dupilumab significantly downregulated MRGPRX2 ($p < 0.01$), while upregulating CD63 ($p < 0.1$), CD203c ($p < 0.05$), and CCR3 ($p < 0.05$). In contrast, abrocitinib selectively reduced CD203c expression ($p < 0.05$). Functionally, anti-IgE–mediated MRGPRX2 activation was preserved after dupilumab, whereas fMLP-induced upregulation of MRGPRX2 was abrogated following both therapies. Basophils display AD-specific alterations modulated differently by dupilumab and abrocitinib, supporting their potential as biomarkers and therapeutic targets.

OL.5
TOPICAL SULFORAPHANE AMELIORATES ATOPIC DERMATITIS BY ENHANCING KERATINOCYTE BARRIER FUNCTION

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Atopic dermatitis (AD) is characterized by skin barrier defects and type 2 inflammation. This study investigates whether topical sulforaphane (SFN), a bioactive compound with well-known anti-inflammatory and antioxidant properties, can ameliorate AD by directly improving keratinocyte barrier function. In vivo: A murine model of AD was induced by MC903, and mice were treated topically with 1% SFN for 14 days. Disease severity was assessed using EASI scores, ear thickness, histopathology, transepidermal water loss (TEWL), scratching behavior, and serum IgE levels. In vitro: Human keratinocytes (2D and 3D models ± IL-4/-13) were treated with SFN. Barrier-related gene and protein expression were evaluated by qPCR, western blot, and immunofluorescence. Functional barrier assessments included transepithelial electrical resistance (TER), TEWL and tracer penetration assays. In vivo, SFN-treated mice showed significant improvement in AD-like symptoms, including lower EASI scores, TEWL, scratching behaviour, ear thickness, epidermal thickness, and mast cell infiltration. In vitro, SFN upregulated key keratinocyte barrier-associated genes (e.g., TJP1, OCLN, LOR, and CLDN1), and proteins (ZO-1, occludin, and claudin-1). SFN also enhanced TER, and improved 3D epidermal barrier integrity as shown by decreased TEWL and reduced tracer penetration. SFN alleviates AD by directly enhancing keratinocyte barrier function through upregulation of tight junction-associated genes and proteins. These findings support the potential of SFN as a topical therapeutic agent for AD.

OL.6
THE IMPACT OF DATA SOURCE ON GLOBAL TRENDS IN ATOPIC DERMATITIS PREVALENCE

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Studies examining trends in global atopic dermatitis (AD) prevalence over the past 3 decades have found conflicting results, despite using the same source, the Global Burden of Disease (GBD) study. The GBD Study releases updated standardized disease burden estimates for policymakers using a Bayesian model that incorporates multiple data sources to generate estimates for all areas, including those with data gaps. While GBD2017 showed a steady AD prevalence over 3 decades, analyses based on GBD2019 and GBD2021 suggest an up to 40% lower prevalence and decreasing trends over the same period, and that administrative claims data underestimate AD prevalence compared to epidemiologic studies. We aim to assess whether changes in the composition of data type in GBD data sources over time led to decreases in historical estimates of AD prevalence. GBD data sources from 2017-2021 were categorized as population-based study, administrative claims data, or other. We calculated each category's proportion of data sources and sample size for each GBD release and identified countries with no data sources. Although administrative claims data sources made up a small

proportion of total data sources (3% for GBD2017 – 10% for GBD2021), they included 3-144 million individuals, comprising 91.2-99.5% of total sample size. Adding administrative claims data from just 5 countries led to a 40% decrease in historical AD estimates. In GBD2021, 91 of 203 countries (45%) had no data source for AD. Adding very large administrative claims datasets from a few countries to the GBD study substantially lowered global AD prevalence estimates and created an apparent artefactual decreasing trend over the past 3 decades. Large data gaps remain, especially in lower-income countries where GBD estimates correlate worst with large epidemiologic studies.

OL.7
GLOBAL, REGIONAL AND NATIONAL BURDENS OF ATOPIC DERMATITIS IN ADOLESCENTS AND YOUNG ADULTS AGED 10-24 YEARS FROM 1990 TO 2021: A TREND ANALYSIS

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Atopic dermatitis (AD) imposes a major burden on adolescents and young adults aged 10-24 years, a critical period of psychosocial development, yet data on its long-term burden trends for this transitional age group remain limited. We aimed to investigate trends in the burden of AD among adolescents and young adults aged 10-24 years at global, regional, and national levels. Data on prevalence, incidence, and disability-adjusted life years (DALYs) for AD aged 10-24 years from 1990 to 2021 were extracted from the Global Burden of Disease Study (GBD) 202 1We analyzed numbers, age-standardized rates and average annual percentage changes (AAPC), stratifying by age, gender, and Socio-demographic Index (SDI). Globally, the number of prevalent cases of AD among adolescents and young adults rose from 311.4 million (95% UI 284.2–339.9) in 1990 to 353.2 million (322.9- 386.1) in 2021, while the age-standardized prevalence rate (ASPR) slightly decreased (AAPC=-0.25, 95% CI -0.25 to -0.25). Regionally, High-income Asia Pacific and High SDI region had the highest age-standardized prevalence, incidence, and DALY rates, whereas low SDI region had the lowest burden. Moreover, middle SDI region showed a unique increase in prevalence and DALY rates (AAPC=0.03 each, 0.03 to 0.03). Nationally, Japan had the highest ASPR in 2021, while Kenya showed the most rapid increase (AAPC=0.22, 0.22 to 0.23). The burden peaked in early adolescence (10-14 age group) and was consistently higher in females. The absolute burden of AD in adolescents and young adults is rising globally despite a slight decline in age-standardized rates, with a concerning stabilization of burden in middle-income nations. The highest impact is focused in early adolescence, highlighting a critical window for intervention, demanding tailored public health strategies to address the growing challenge.

OL.8
ATOPIC DERMATITIS PREDISPOSES DUPILUMAB RELATED CONJUNCTIVITIS IN PRURIGO NODULARIS PATIENTS

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Conjunctivitis is the most commonly observed adverse ocular event associated with dupilumab; however, the risk for its occurrence prurigo nodularis (PN) is not known. We aimed to investigate the influence of coexisting atopic dermatitis (AD) on the risk of developing dupilumab-related conjunctivitis in patients with PN. Utilizing the TriNetX, we focused on identifying adult patients diagnosed with PN treated with dupilumab. We established two distinct patient cohorts: with and without accompanying AD. We compared the incidence of first-onset conjunctivitis between the cohorts, calculating risk difference (RD), risk ratio (RR), and employing Kaplan-Meier methods to derive hazard ratios (HR). Furthermore, we constructed a separate multivariable Cox proportional hazards model that accounted for variables including age, sex, asthma status, allergic rhinitis, serum IgE levels, blood eosinophil counts, and atopic dermatitis. Following matching, we analyzed 2,132 patients in each group. During a follow-up, we found that conjunctivitis occurred in 4.1% with AD versus 1.2% non-AD patients (RD 2.9%, RR 3.45 (95% CI 2.17-5.49)). The Kaplan-Meier survival analysis affirmed that patients with AD faced a higher hazard of developing conjunctivitis (HR 2.26). In a comprehensive Cox regression model, AD was established as an independent predictor of conjunctivitis, yielding an HR of 1.33Additionally, the presence of allergic rhinitis was associated with an increased risk of conjunctivitis (HR 2.15), as was asthma (HR 1.55), while male sex appeared to be a protective factor (HR 0.85). The presence of AD in PN patients significantly raises the incidence and risk of dupilumab-associated conjunctivitis in real-world patient networks.

OL.9
EGFR-MEDIATED AUTOPHAGY BY BETACELLULIN IMPROVES ATOPIC DERMATITIS PATHOGENESIS

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Autophagy is crucial in atopic dermatitis (AD) pathophysiology, impacting keratinocyte differentiation, immune response, and barrier integrity. Betacellulin (BTC), an epidermal EGFR ligand downregulated in AD lesions, enhances skin barrier function; however, its role in autophagy modulation and therapeutic potential in AD is unknown. This study investigates the mechanisms of BTC in regulating autophagy and evaluates its efficacy in alleviating AD-like symptoms. Autophagy activation by BTC was assessed in keratinocytes. In vitro, effects of BTC on Staphylococcus aureus invasion and cytokine expression under IL-4/IL-13/S. aureus treatment were measured. In vivo, MC903-induced AD-like mice were treated with mouse BTC, and ear thickness, scratching, TEWL, S. aureus load, histology and gene expression of barrier-related proteins and Th2 cytokines were evaluated in the absence or presence of EGFR inhibition or keratinocyte autophagy-deficient mice. BTC activated autophagy in keratinocytes via the EGFR pathway. In vitro, BTC reduced S. aureus invasion via autophagy regulation and suppressed pro-inflammatory cytokine expression. In AD-like mice, BTC significantly decreased ear thickness, scratching, TEWL, S. aureus invasion, epidermal thickness, and mast cell infiltration. BTC also restored the expression of barrier-related genes (Flg, Cldn1, Tjp1) and downregulated Th2 cytokines (Tslp, Il33). Crucially, these benefits were abolished by EGFR inhibition and autophagy deficiency. BTC improves AD symptoms by activating EGFR-JNK/ERK-dependent autophagy, suppressing inflammation, enhancing skin barrier function, and reducing S. aureus invasion. BTC represents a promising therapeutic candidate for AD, with significant potential for clinical translation.

OL.10
CONTEXT-DEPENDENT ROLES OF NECROPTOTIC SIGNALLING IN CUTANEOUS INFLAMMATION: IMPLICATIONS FOR ATOPIC DERMATITIS PATHOGENESIS AND THERAPEUTIC TARGETING

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Atopic dermatitis (AD) can be challenging to treat. Cell death-targeting therapies represent a promising new frontier. Necroptosis, a lytic, pro-inflammatory form of programmed cell death, is being investigated as a therapeutic target. However, our findings reveal unexpected, context-dependent roles for necroptotic signalling in skin inflammation, immune regulation, and repair that suggest a tissue-specific understanding of its role in pathology is required. To determine how necroptotic signalling influences cutaneous inflammation and epidermal repair. We used necroptotic knockout (KO) mice in cutaneous injury and inflammatory skin disease models. Bone marrow chimeras were generated to assess compartment-specific effects. In vitro, we treated KCs with necroptotic stimuli and assessed calcium flux and differentiation marker induction at sub-lethal doses. Necroptosis-deficient mice had rapid cutaneous recovery. Histological analyses indicated altered epidermal dynamics may drive enhanced healing. Tissue culture studies revealed that sub-lethal necroptotic signalling promotes KC differentiation. In parallel with improved epidermal healing, we observed a paradoxical increase in dermatitis in the KOs. Immune-specific deficiency in chimeras worsened dermatitis, while transplant with WT immune cells mitigated it. Necroptosis has dual roles in skin inflammation. We reveal a stress-adaptive mechanism by which keratinocytes can redirect cell fate from lytic death to terminal differentiation, alongside an unexpected role for immune cell necroptosis in restraining dermatitis. Given the interplay between barrier dysfunction and immune dysregulation in AD, these findings may point to new mechanisms of AD pathogenesis with important implications for the therapeutic use of cell death inhibitors.

OL.11
VOLUNTARY EXERCISE MODULATES THE GUT MICROBIOTA AND IMPROVES SKIN INFLAMMATION IN A MOUSE MODEL

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Atopic dermatitis (AD) is a chronic inflammatory skin disease caused by the combination of environmental and immune factors. Epidemiological evidence suggests an inverse link between physical activity and AD, although the underlying mechanisms remain poorly defined. This study aimed to investigate the therapeutic effects of voluntary exercise on AD-like inflammation in a murine model and elucidate the underlying mechanism. AD-like inflammation was induced in mice through topical application of the vitamin D3 analog MC903The mice were subjected to voluntary wheel running for four weeks. To assess microbiota involvement, three approaches were employed: (1) depletion of gut microbiota via oral antibiotic treatment; (2) fecal microbiota transplantation (FMT) from exercised or sedentary donor mice; (3) assessment of dermatitis severity by transepidermal water loss (TEWL), Th2 cytokine levels, and histological analysis of CD4+ T-cell infiltration. Mice that engaged in voluntary exercise exhibited attenuated AD-like symptoms, including reduced ear swelling, epidermal thickness, and TEWL. Exercise also led to reduced Th2 cytokine expression. Additionally, CD4+ T-cell infiltration in lesional skin was diminished. Notably, sedentary AD mice co-housed with exercised counterparts also showed similar improvements. However, antibiotic-mediated depletion of microbiota abolished the beneficial effects of exercise. Conversely, FMT from exercised donor mice restored improvements in both skin barrier and inflammation markers. This study shows that voluntary exercise provides lasting protection against AD by modulating the gut microbiota, likely through immune-mediated mechanisms. Our findings support exercise as a non-pharmacologic intervention for AD and highlight the therapeutic potential of microbiota-targeted strategies.

OL.12
PREDICTING MALASSEZIA SENSITIZATION IN ATOPIC DERMATITIS AND OTHER DERMATOSES USING CLINICAL AND IMMUNOLOGICAL MARKERS: A MACHINE LEARNING APPROACH

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Malassezia, a lipid-dependent yeast in the skin microbiota, can act as an allergen in atopic dermatitis (AD), especially in cases with head and neck involvement. Sensitization to Malassezia antigens correlates with increased disease severity and may complicate treatment responses. We aimed to identify clinical and immunological predictors of Malassezia sensitization in AD and other dermatoses using machine learning. A retrospective cohort of 1,906 patients tested for Malassezia-specific immunoglobulin E (IgE) was analyzed. Patients were categorized into high (≥0.7 kU/L) and low (<0.7 kU/L) sensitization groups. Demographic data, AD severity (EASI scores), anatomical involvement, total IgE levels, and peripheral eosinophil counts were evaluated. Random Forest and gradient boosting algorithms were employed to build predictive models. SHapley Additive exPlanations and Accumulated Local Effects were applied for model interpretability. Both machine learning models showed excellent predictive performance (ROC-AUC: 0.975). Key predictors of Malassezia-specific IgE elevation included younger age (OR 0.67, 95% CI 0.60–0.76), mild-to-moderate AD severity (OR 2.16, 95% CI 1.54–3.01), total IgE >264.5 kU/L (OR 1.20 per 100 kU/L, 95% CI 1.16–1.23), and head and neck involvement (OR 1.97, 95% CI 1.45–2.69). Among dupilumab-treated patients, those with head and neck dermatitis had significantly higher Malassezia-specific IgE levels compared to controls ($p<0.001$). This study emphasizes the significance of clinical and immunological factors in predicting Malassezia sensitization. Machine learning models offer a robust tool for stratifying AD patients at risk of fungal sensitization, which may guide personalized treatment and prevent adverse responses during targeted therapy.

OL.13
EFFICACY AND SAFETY OF RUXOLITINIB CREAM IN ADULTS WITH MODERATE ATOPIC DERMATITIS: RESULTS FROM TRUE-AD4, A PHASE 3B, RANDOMIZED, DOUBLE-BLIND, VEHICLE-CONTROLLED STUDY

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In patients with moderate atopic dermatitis (AD), standard topical therapies often do not sufficiently control the disease. Present 8-week results of ruxolitinib cream in TRuE-AD4 (NCT06238817) in patients with moderate AD with inadequate response/intolerance/contraindication to topical corticosteroids and topical calcineurin inhibitors (post-TCS and -TCI). Patients aged ≥18 y with AD, an Investigator's Global Assessment (IGA) of 3, Eczema Area and Severity Index (EASI) >7, itch numerical rating scale (NRS) ≥4, and 10%–20% affected body surface area post-TCS and -TCI were randomized (2:1) to twice-daily 1.5% ruxolitinib cream or vehicle for 8 weeks. Coprimary endpoints at Week 8 were ≥75% improvement in EASI from baseline (EASI-75) and IGA score of 0/1 with a ≥2-point improvement from baseline (IGA treatment success [TS]). Of 241 randomized patients, mean (SD) EASI and itch NRS score were 12.6 (4.1) and 7.4 (1.5) at baseline, respectively. At Week 8, among patients who applied 1.5% ruxolitinib cream (vs vehicle), 61.3% achieved IGA-TS (vs 13.6%; P<0.0001) and 70.0% achieved EASI-75 (vs 18.5%; P<0.0001), with improvement by Week 2 (first assessment). A ≥4-point improvement in itch NRS was achieved by 29.8% of patients at Day 2 (vs 13.7%; P=0.0072) and 62.5% at Week 8 (vs 19.8%; P<0.0001). The most common treatment-related adverse events (TRAEs) in patients who applied ruxolitinib cream vs vehicle were application site acne (4.4% vs 0%), acne (1.3% vs 0%), application site pain (1.3% vs 6.2%), and headache (1.3% vs 0%); no serious TRAEs occurred. In adults with moderate AD post-TCS and -TCI, who may otherwise be eligible for systemic therapy, 1.5% ruxolitinib cream significantly improved clinical signs of AD, rapidly improved itch, and was well tolerated. Ruxolitinib cream may therefore be an option to delay or prevent progression to systemic therapy in AD.

OL.14
REAL-WORLD ANALYSIS FOR LONG-TERM TREATMENT OF MODERATE-TO-SEVERE ATOPIC DERMATITIS WITH ADJUSTING DOSES OF DUPILUMAB

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Dupilumab, an interleukin (IL)-4Rα-targeting monoclonal antibody, is effective for treating moderate-to-severe atopic dermatitis (AD). However, many patients don't adhere to the standard treatment regimen, and have been attempting to extend dosing intervals or stop using for various reasons. but the effects of this approach remain unclear. This study aimed to assess the real-world effectiveness of long-term treatment for moderate-to-severe AD with varying dupilumab dosing intervals in China, focusing on disease control, relapse rates, and influencing factors. A retrospective study was conducted on 1,005 AD patients treated with dupilumab from August 2020 to June 2024390 patients who continued treatment after 16 weeks were evaluated for different dosing intervals (q2w, q3w, q4w, q6w, q8w and above) and associated outcomes, including disease severity and relapse rates. After 16 weeks of treatment, significant improvements were observed in the AD patients, with 62.3% of them achieving the Investigator's Global Assessment (IGA) 0/1Among 390 patients, 222 extended their dosing intervals, with no significant difference in disease control across extended-interval groups. The q2w group showed the least favorable outcomes. Relapse rates were similar across extended-interval groups, but q8w and above group was associated with a higher relapse risk. Key predictors for relapse included baseline disease severity and age at treatment initiation. Moreover, gender was identified as a significant predictor for relapse after discontinuation. Extending dosing intervals of dupilumab in patients with controlled AD is a practical and cost-saving strategy.

OL.15
REAL-WORLD EFFICACY OF DUPILUMAB AND CLINICAL PREDICTORS OF TREATMENT RESPONSE IN ATOPIC DERMATITIS - A POLISH MULTICENTER RETROSPECTIVE STUDY

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Real-world data on atopic dermatitis patient-related factors influencing dupilumab therapeutic outcomes remain limited. We aimed to evaluate the real-world efficacy of dupilumab in patients with moderate-to-severe atopic dermatitis (AD) in Poland and to identify potential clinical factors associated with nonresponse to dupilumab. This retrospective, observational multicenter study included patients with moderate-to-severe AD treated with dupilumab across 17 hospitals in Poland. The study involved one baseline and three follow-up visits at weeks 4, 16 (±2 weeks), and 52 (±2 weeks). Baseline characteristics were analyzed based on EASI-75 response, with responders defined as those achieving EASI-75 and nonresponders as those who did not. A total of 623 patients were included: 422 adults (53.1% male; mean age at dupilumab initiation: 35.3 ± 13.3 years) and 201 pediatric patients (47.8% boys; mean age: 11.1 ± 3.4 years). Among adults, EASI-75 was achieved by 40.7% (68/167) at week 4, 77.0% (292/379) at week 16, and 93.7% (254/271) at week 52In pediatric patients, the corresponding rates were 47.3% (43/91), 75.9% (142/187), and 88.5% (92/104). In adults, nonresponse at W4 was associated with adult-onset AD ($p = 0.03$), atopic comorbidities ($p = 0.03$), and food sensitization ($p = 0.03$); at W16, with male sex ($p = 0.03$), atopic comorbidities ($p = 0.02$), airborne sensitization ($p = 0.01$) and smoking ($p = 0.04$). In pediatric patients, nonresponse was linked to early-onset AD ($p = 0.03$) and a first-degree family history of atopy ($p = 0.02$) at W4, and to higher BMI (19.9 vs. 18.2; $p = 0.01$) at W16Identifying predictors of response may be crucial for guide clinician decisions and improving outcomes.

OL.16
APPLICATION OF REAL -WORLD EFFECTIVENESS OUTCOMES OF UPADACITINIB TO CANADIAN TREAT-TO-TARGET CRITERIA FOR ATOPIC DERMATITIS: A RETROSPECTIVE MULTICENTER ANALYSIS OF 1 YEAR DATA

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While clinical trials have investigated upadacitinib for atopic dermatitis (AD), real-world data remains limited. We conducted a retrospective multicenter analysis evaluating real-world effectiveness outcomes of upadacitinib as per the Canadian target-to-treat (T2T) criteria for AD. Our retrospective multicenter study included adult and adolescent patients with AD from three Canadian institutions. The primary outcome was the proportion of patients achieving the Canadian T2T criteria for AD at week 52±6, which included achievement of 1 clinician-reported outcome (Eczema Area and Severity Index [EASI] improvement of ≥-90% [EASI90], Investigator Global Assessment [IGA] 0/1, absolute EASI score ≤7) and 1 patient-reported outcome (Worst Pruritus Numeric Rating Scale [WP-NRS] ≤4, Dermatology Life Quality Index [DLQI] ≤5, or Patient Oriented Eczema Measure [POEM] ≤7). Of 192 included patients, mean age was 44.6 (range: 12-79) years, with 49% (94/192) being male. At week 52±6: Canadian T2T for AD were achieved by 87% (167/192) of patients in total. At least one clinician-reported outcome (EASI90, IGA 1/0, or absolute EASI ≤7) was achieved by 94.8% (182/192) of patients, and 80.2% (154/192) achieved all three clinician-reported outcomes. At least one patient-reported outcome (WP-NRS improvement ≤4, DLQI ≤5, or POEM ≤7) was achieved by 87.5% (168/192). In total, 86 treatment-emergent adverse events occurred (86/192, 44.8%). Three treatment discontinuations (1.6%) were noted (HSV-1 [n=1], folliculitis [n=1], and respiratory failure [n=1]. Our real-world results indicate that the majority of patients with AD treated with upadacitinib achieved at least one clinician- and patient-reported outcome as per Canadian T2T criteria. Study limitations include a lack of complete real-world documentation for certain metrics (e.g. POEM).

OL.17
ELUCIDATING THE LONG-TERM COMORBIDITY SPECTRUM AND TRAJECTORIES OF ATOPIC DERMATITIS

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Atopic dermatitis, the most common chronic inflammatory skin disease, is increasingly seen as a systemic disorder. Its broad comorbidity landscape and long-term comorbidity trajectory remain unclear. To elucidate the comorbidity spectrum of atopic dermatitis and reveal comorbidity trajectories, clustering patterns in atopic dermatitis, and cluster-specific genetic architectures. To uncover atopic dermatitis syndemics, we: (1) conducted a phenome-wide association study (PheWAS) in UK Biobank with 11,065 atopic dermatitis cases and 110,650 matched controls, assessing comorbidity and mortality risks; (2) performed genetic analysis with polygenic risk score (PRS)-PheWAS, linkage disequilibrium score regression (LDSC), and two-sample Mendelian randomization (MR); (3) mapped comorbidity networks and trajectories via comorbidity strength, conditional logistic regression, binomial test, and performed Louvain clustering and cluster-specific genome-wide association study (GWAS). Atopic dermatitis was linked to 182 comorbidities across 14 systems, such as asthma, infections, mental and cardiometabolic diseases, where atopic and infectious diseases shared a genetic basis with atopic dermatitis. We identified 3,526 comorbidity pairs, clustering into 5 clusters dominated by skin–gut diseases (from skin and gut infections to functional digestive disorders), infections (acute respiratory to chronic multi-system infections), mental disorders (from anxiety, depression to major depressive disorder and adverse drug effects), cardiometabolic diseases (from glucose-lipid disorders to heart and kidney failure), and musculoskeletal dysfunction (local to widespread osteoarthritis). GWAS revealed the cluster-specific genetic basis. Sixty-eight comorbidity–death links

were identified, especially infections such as sepsis (odds ratio [OR] = 10.60). This study reveals the systemic comorbidity spectrum and differentiated comorbidity trajectory of atopic dermatitis, supporting systemic, precision-based management of atopic dermatitis.

OL.18
THE RISK OF VENOUS THROMBOEMBOLISM IN ATOPIC DERMATITIS: A POPULATION-BASED COHORT STUDY

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Background: Understanding baseline venous thromboembolism (VTE) risk in AD may be crucial for management, though evidence remains inconsistent. Objective: To assess whether individuals with AD have increased risk of incident VTE versus the general population and examine risk variations by demographic factors and disease severity. Methods: This nationwide matched cohort study used Swedish health and population registers. Adults (≥18 years) with AD from Jan 1, 2006, were matched with up to five controls by birth year and sex. AD severity was defined by systemic immunosuppressive use or AD-related hospitalization. Incidence rates per 1,000 person-years and adjusted hazard ratios (aHRs) were estimated using Cox models, accounting for comorbidities, treatments, and socioeconomic factors. Follow-up spanned from first AD diagnosis or 18th birthday to VTE, JAK inhibitor start, emigration, death, or Dec 31, 2023Results: We identified 210,492 individuals with AD matched to 1,048,395 controls without AD. At inclusion, 94.1% had non-severe AD and 5.9% had severe AD. The AD cohort had 3,292 VTE events, with an incidence of 1.49 per 1,000 person-years, compared to 1.71 per 1,000 person-years in the general population. VTE risk was similar in individuals with AD and the general population (adjusted hazard ratio [aHR] 1.04, 95% confidence interval [CI] 1.01-1.09). Severe AD had a higher risk of VTE compared to the general population (aHR 1.93, 95% CI 1.70-2.14). Elevated VTE risk in severe AD was seen across all age groups. The youngest group (ages 18–39) exhibited a notably higher relative risk compared to age-matched controls (aHR 2.95, 95% CI 2.40-3.59). Conclusions: This large population-based study found similar overall VTE risk between patients with AD and the general population, but higher risk in those with severe AD, particularly among younger adults.

OL.19
DUPILUMAB-ASSOCIATED OCULAR SURFACE DISEASE IN ATOPIC DERMATITIS HAS A DISTINCT TEAR PROFILE

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Atopic dermatitis (AD) is a chronic inflammatory skin disease often associated with ocular surface disease (OSD). Dupilumab, an IL-4Rα inhibitor, is an effective treatment for AD but it frequently induces dupilumab-associated OSD (DAOSD). DAOSD may result from a paucity of conjunctival goblet cells; however, the exact mechanism remains undetermined. We conducted a prospective, single-arm, observational study with 50 moderate-to-severe AD patients receiving dupilumab for 24 weeks. We performed ophthalmological evaluations, conjunctival impression cytology analysis, and tear fluid profiling at baseline and weeks 4, 12, and 24Clinical disease severity scores (EASI, IGA, and SCORAD) indicated significant improvement with dupilumab. At baseline, 18% of patients already exhibited OSD. During the study period, the DAOSD rate was 22%–26%. Most DAOSD cases were mild and controlled with topical anti-inflammatory drops. No progressive deterioration in ophthalmological parameters or conjunctival goblet cell counts was observed. Patients with reduced conjunctival goblet cells at baseline had significantly lower tear BDNF levels and significantly higher tear VEGF-A, PDGF-BB, and MCP-1 levels. Patients with DAOSD had higher residual AD severity at weeks 12 and 24Tear fluid analysis revealed elevated IL-1β, IL-8, IL-9, IL-16, and chemokines (eotaxin, eotaxin-2, MCP-1, MIP-1α, MIP-1β, IP-10, and SDF-1) during DAOSD episodes, indicating a shift toward Th1/innate immune activation. DAOSD is common but transient in AD patients receiving dupilumab. Its underlying mechanisms may involve pre-existing goblet cell deficiency, changes in tear composition, and an altered inflammatory profile. Prophylactic ocular surface care may help mitigate DAOSD risk, improving patient outcomes.

OL.20
HIGH EFFICACY OF 1% BENVITIMOD CREAM IN PEDIATRIC PATIENTS WITH ATOPIC DERMATITIS: A POST-HOC ANALYSIS OF A PHASE III TRIAL

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Benvitimod (tapinarof), a novel aryl hydrocarbon receptor (AhR) agonist, has been approved for plaque psoriasis in China and in the United States. Recent studies have suggested that benvitimod could also inhibit type two inflammation. To compare the efficacy and safety of benvitimod in pediatric patients and adult patients with atopic dermatitis in a phase III study. A total of 272 patients aged ≥2 years were included in this study with 96 children and 87 adults in benvitimod group 46 children and 42 adults in placebo group. All patients used benvitimod or vehicle cream twice daily for 8 weeks. The primary endpoint was the proportion of patients with ≥75% improvement in EASI score (EASI-75) at week 8The key secondary endpoint was IGA score of 0 (clear) or 1 (almost clear). The treatment-emergent adverse events (TEAEs) were also analyzed. After 8 weeks of treatment, 69.2% pediatric patients in benvitimod group achieved EASI 75 versus 31.2% in placebo group (P<0.001). In adults, 38.0% patients in benvitimod group achieved EASI 75, versus 19.5% in placebo group (P<0.05). Similar results were observed for IGA 0/1 response in pediatric patients (61.5% vs. 28.6%, P<0.001) and adult patients (29.3% vs. 13.5%, P<0.05). Both EASI 75 and IGA 0/1 response were significantly higher in pediatric patients than in adult patients (P<0.001). TEAEs were reported in 51.4% patients in benvitimod group and 43.2% in placebo group, most being mild to moderate. No systemic safety signals were observed. 1% Benvitimod cream demonstrated robust efficacy in both pediatric and adult patients with atopic dermatitis. More pronounced efficacy was found in pediatric patients than adult patients. The safety profile was favorable and consistent across age groups, supporting benvitimod as a novel treatment for pediatric and adult patients with AD.

OL.21

DIAGNOSTIC CHALLENGES OF ATOPIC DERMATITIS IN THE ELDERLY AFRICAN POPULATION: A CASE SERIES HIGHLIGHTING MISMANAGEMENT AND CLINICAL MIMICS.

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Atopic Dermatitis (AD) in the elderly is under recognized globally and particularly underdiagnosed in African populations. Clinical features often deviate from classical patterns and may resemble other dermatoses such as fungal infections, scabies, or impetigo. Additionally, widespread access to over-the-counter (OTC) medications and the cultural use of herbal or traditional remedies often obscure clinical presentation, delay accurate diagnosis, and promote inappropriate treatments. N/A Case Descriptions: Case 1: A 74-year-old woman presented with hyperpigmented, thickened, and excoriated plaques on the anterior lower legs and extensor forearms for 2 months. She had received multiple antibiotics and antiseptics, and herbal ointments without relief. A misdirected course of oral steroids was given without diagnosis in the peripheral hospitals. Case 2: A 78-year-old man reported months of itchy rash on the neck, groin, and flexures for 3 weeks. He was treated unsuccessfully for presumed fungal infections, scabies, and allergic reactions in local pharmacies. Use of herbal soaps exacerbated his condition. Case 3: A 82-year-old hypertensive woman suffered from widespread pruritus, prurigo like nodules and lichenified plaques for 5 months. Prior treatments included OTC antifungals, antibiotics, herbal oils, and unmonitored systemic steroids. In all three cases, patients experienced resolution only after AD was considered and treated with basic but targeted interventions. Conclusion: AD in elderly African populations is often overlooked, misdiagnosed, and worsened by self-treatment. Early recognition in patients with chronic pruritus is essential. Improving diagnostic capacity, educating frontline providers, and curbing inappropriate treatments are vital to better care in this vulnerable group

OL.22

EXPLORATORY STUDY OF SKIN MICROBIOME AMONG BLACK SKIN CHILDREN WITH ATOPIC DERMATITIS IN URBAN AND RURAL AREAS IN MALI

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Several studies have pointed out the relation between skin microbiota imbalance and atopic dermatitis (AD), whereby a loss of diversity is usually seen in lesional skin, and also the link with disease flare. Few were conducted in Sub-Saharan Africa, particularly in black skin patients. This study aimed at investigating the skin microbiota among black skin children with AD in both urban and rural areas. -Describe skin microbiota in rural and urban cases -Compare skin microbiota in rural and urban cases. Children aged between 6 to 12 years diagnosed with AD were enrolled in Bamako and Koulikoro regions under an IRB-approved protocol. Skin swabs were collected from the antecubital fossa and analyzed by 16S rRNA sequencing on the Illumina NextSeq 1000 platform. Sequences were quality-filtered using FastQC and Trimmomatic, and analyzed with custom R scripts for microbial composition and diversity metrics. Among the 42 AD cases (33 urban, 9 rural), a marked reduction in skin microbiota diversity was observed across all patients. In rural areas, Actinobacteria accounted for 90% and Firmicutes for 80%, with a Shannon index of 0.4, while urban cases showed more diverse profiles: Firmicutes (58.4%), Actinobacteria (25%), and Proteobacteria (16.6%), with a Shannon index of 1Genus-level differences were also evident: Staphylococcaceae dominated urban microbiota (50%), whereas Macrococcus prevailed in rural samples (50%). Notably, bathing frequency influenced microbial composition: Staphylococcus abundance was higher (52%) among children who bathed once daily, while Micrococcus was more prevalent (25%) among those bathing more frequently. Our findings reveal substantial cutaneous microbiome dysbiosis among Malian children with AD, with distinct microbial patterns based on geography and hygiene practices.

OL.23

REAL-WORLD MANAGEMENT OF ATOPIC DERMATITIS IN SUB SAHARAN AFRICA

Fahafahantsoa RAPELANORO RABENJA[1], Erereoghor OTROFANOWEI[2], Emmanuel KOUOTOU[4], Ncoza DLOVA[3] — on behalf of the AD working group in the management of AD in SSA

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Atopic Dermatitis(AD) is a prevalent chronic inflammatory skin condition in SSA, affecting both children 3-15% and adults 0.5-2% with significant morbidity. Despite its frequency, the real-world management of AD in SSA faces numerous challenges that impact patient outcomes. Describe AD management of patients in real life in SSA 11 countries participate in this study such as Madagascar, Burkina Faso, Cameroon, Guinea, Ivory Coast, Mali, Nigeria, Senegal, South Africa, Tanzania and North Africa represented by Tunisia. Access to emollients, Topical corticosteroids, Topical inhibitor of calcineurin remains inconsistent due to high costs. Traditional herbal medicines and self medication, exacerbate the disease and cause severe complications. Healthcare infrastructure constraints,lack adequate training of HCP and limited diagnostic tools, complicate effective management. Cultural perceptions and low awarness of AD as chronic disease affects patient adherence to traitement. Systemic therapies (Methotrexate) and biologics traitement, are rarely accessible due to cost, restricting their use to patients with severe disease. Oral Antihistamines and antibiotics are used to manage lost of sleep and secondary infections. Therapeutic Patient Education programs adapted to local contexts, have shown promise in improving disease understanding, treatment adherence, and quality of life. Teledermatology offer potential to bridge the gaps in specialist care access. This workshop has emphasized a comprehensive specific approach to AD management in SSA, prioritizing affordable, locally sourced emollients, capacity building and patient education. These multifaceted challenges is critical to reducing the burden of AD. This overview reflects current realities and proposes practical strategies for advancing AD care in African setting.

WHAT'S NEW FROM THE INDUSTRY LECTURE ABSTRACTS (SL)

SL.1
ACHIEVING MINIMAL DISEASE ACTIVITY WITH JAK INHIBITION IN ATOPIC DERMATITIS

For Abbvie: Gayle L. ROSS
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Recent studies have highlighted the value of reaching optimal treatment targets and minimal disease activity in the management of atopic dermatitis (AD). Aiming for optimal treatment targets in clinician-reported outcomes (ClinROs; e.g., Eczema Area and Severity Index [EASI] 90% improvement) and in patient-reported outcomes (PROs; e.g., peak pruritus numerical rating scale [NRS] 0/1) elevates the standard of care in AD. Minimal disease activity (MDA) in AD has been defined by an international consensus as simultaneously meeting optimal targets in at least one ClinRO and one PRO. A recent publication has shown that patients who achieved optimal treatment targets, compared with those achieving a moderate target or no treatment target, reported greater improvement in patient health-related quality of life (HRQoL) outcomes. In addition, patients who achieved MDA, versus those achieving optimal ClinROs or PROs alone, were more likely to report improved patient HRQoL outcomes. The impact on the patient's HRQoL was measured across eight outcomes: itch, skin symptoms, quality of life, sleep, daily activities, emotional state, work productivity, and treatment satisfaction. Clinical trials with upadacitinib [Measure Up 1 (NCT03569293) and Measure Up 2 (NCT3607422)], a selective oral Janus kinase inhibitor approved for the treatment of AD in adolescents and adults, have demonstrated that patients receiving treatment with upadacitinib (15 mg or 30 mg) achieved both ClinRO and PRO optimal treatment targets, as well as MDA, at week 16 and at week 52. This suggests that JAK inhibition and aiming for optimal treatment targets may optimize overall disease management in patients with moderate-to-severe AD.

SL.2
LILLY'S COMMITMENT TO DERMATOLOGY

For Lilly: William ROMERO GALLARDO, Khai Jing NG

Abstract summary not available at the time of printing

SL.3
DELTA TEEN PHASE 3 TRIAL FOR DELGOCITINIB CREAM, A NON STEROIDAL PAN-JAK INHIBITOR, DEMONSTRATES EFFICACY AND SAFETY IN ADOLESCENTS WITH MODERATE TO SEVERE CHRONIC HAND ECZEMA

For Leo-Pharma: Teodora FESTINI
Sonja MOLIN[1,2], Eulalia BASELGA[3], J. Navarro-TRIVIÑO[4], Ziad REGUIAI[5], Sofie DE SCHEPPER [6], James HALPERN[7], Danielle MARCOUX[8], John SU[9,10], Paweł BRZEWSKI[11,12], Stine DALSBØ ANTONSEN[13], Line Conradsen HIORT[13], Anders SØHOEL[13], Patrick THØGERSEN[13], Diana RUBEL[14,15]

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Chronic Hand Eczema (CHE) is a common, multifactorial, inflammatory skin disease associated with itch, pain, and a significant physical and psychosocial burden. Delgocitinib cream 20 mg/g, a topical, non-steroidal, pan-Janus kinase inhibitor, is now approved across Europe and other markets for the treatment of moderate to severe CHE in adults. The DELTA TEEN trial aimed to assess the efficacy and safety of delgocitinib cream in adolescents with moderate to severe CHE. DELTA TEEN (NCT05355818) was a randomised, double-blind, vehicle controlled, multisite, Phase 3 trial. Adolescents (12-17 years) with moderate to severe CHE were randomised 3:1 to twice-daily applications of delgocitinib cream (N=74) or cream vehicle (N=24) for 16 weeks followed by a 2-week safety follow-up period. The primary endpoint was the Investigator 's Global Assessment for CHE treatment success (IGA-CHE TS) at Week (W)16, defined as an IGA-CHE score of 0/1 (clear/almost clear) with a ≥2 step improvement from baseline. Key secondary endpoints were ≥90% improvement in the Hand Eczema Severity Index score (HECSI-90) and ≥4-point reductions in Hand Eczema Symptom Diary (HESD) itch, pain, and total scores from baseline to W16 in patients with a baseline score ≥4 points. The primary and key secondary endpoints were analysed using Bayesian analyses. Superiority of delgocitinib cream to cream vehicle was demonstrated for the primary endpoint IGA-CHE TS (63.5% vs. 29.2% responders, probability=0.999) and all key secondary endpoints: HECSI-90 (71.6% vs. 37.5% responders) and ≥4-point improvements in HESD itch (64.8% vs. 36.8% responders), pain (63.3% vs. 33.3% responders), and total score (55.6% vs. 31.3% responders). No serious adverse events (AEs) were reported, and all AEs reported with delgocitinib cream were mild or moderate in severity. The overall proportion and rate of patients reporting AEs were slightly higher for delgocitinib cream (50.0%, 298.88 events per 100 patient years of observation [PYO]) than for cream vehicle (33.3%, 232.33 events per 100 PYO). Few AEs assessed as probably or possibly related to the trial drug and AEs leading to withdrawal from trial or permanent discontinuation were reported, with numerically lower rates for delgocitinib cream (7.76 and 7.76 events per 100 PYO) than cream vehicle (36.68 and 12.23 events per 100 PYO). Delgocitinib cream 20 mg/g demonstrated superior efficacy compared to cream vehicle and was well tolerated in adolescents with moderate to severe CHE, with no safety concerns identified over 16 weeks of treatment.

POSTER PRESENTATIONS (P)

P1. Innate and Adaptive Immunity

P1#1182

DIVERGENT BIOMARKER PATHWAYS: SERUM IGE AND EOSINOPHILS ARE INDEPENDENT CORRELATES OF ATOPIC DERMATITIS SEVERITY

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Atopic dermatitis (AD) is a heterogeneous inflammatory skin disease in which serum immunoglobulin E (IgE) and eosinophil counts (AEC) are often elevated. Their relative contribution to disease severity, and whether they represent overlapping or distinct immunological pathways, remains uncertain. To evaluate the correlation of serum IgE and AEC with EASI scores in patients with AD, and to examine whether these biomarkers are inter-related. Thirty-eight patients with mild to moderate AD were prospectively enrolled (mean age 25.0 ± 10.0 years; range 10–52; 71.1% female). Clinical severity was graded with EASI Scoring , and serum IgE and AEC were quantified. Correlations were assessed using Spearman's rank and Pearson analysis. Of the cohort, 34.2% had mild, 23.7% moderate, and 42.1% severe AD. Mean serum IgE was 661.4 IU/mL (range: 12–10,100 IU/mL; median: 158, IQR: 83.8–328.3), showing wide inter-individual variability. Mean AEC was 344.2 cells/mm³ (range: 20–820; median: 305). Disease severity strongly correlated with IgE (Spearman's $r = 0.88$, $p < 0.001$) and moderately with AEC ($r = 0.66$, $p < 0.001$). Notably, IgE and AEC did not correlate with each other (Pearson's $r = 0.08$, $p = 0.654$), suggesting independent immunopathological drivers. Both serum IgE and eosinophil counts are significant correlates of AD severity, yet they remain uncoupled from one another. This divergence highlights the multifaceted immune pathways underlying AD and underscores the value of evaluating multiple biomarkers for comprehensive disease assessment. These findings strengthen the case for biomarker-guided stratification in AD and may inform future precision-based therapeutic strategies.

P2. Regulation of T Cell Immunity & Systemic Immunity and Immune Crosstalk

P2#1178

REAL LIFE EFFICACY AND SYSTEMIC IMMUNOMODULATION UPON ANTI-IL-13 TREATMENT IN ATOPIC DERMATITIS

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Tralokinumab, a monoclonal antibody targeting interleukin-13 (IL-13), has shown efficacy in clinical trials for moderate-to-severe atopic dermatitis (AD). To evaluate clinical and immunological outcomes following tralokinumab treatment in a real-world AD cohort. In this prospective study, 81 patients received tralokinumab. Clinical scores (oSCORAD, IGA, BSA, DLQI, Pruritus-VAS) were assessed at baseline and after 3, 6, 9, and 12 months. Peripheral T cell subsets (CLA, OX40, TFH) and cytokines (IL-4, IL-13, IL-17A, IL-10, IFNγ) were analyzed by flow cytometry (n=25). Moreover, IgE (total and mite specific) and eosinophils were determined. Tralokinumab led to sustained clinical improvement, with 60.8% and 78.8% reductions in oSCORAD and BSA over time. Immunological assessments (before and after 12 month) revealed a decline of CLA+ CD4+/CD8+ T cells by 63.0%/25.8%; OX40+ T cells by 62.4%/44.0%. CD4+ effector memory T cells increased 4.6-fold, while TEMRA cells declined by 34.0%. IL-13+, IL-4+, and IL-17A+ CD4+ T cells dropped by 70.8%, 72.8%, and 69.3%. IFNγ+ and IL-10+ T cells increased by 62.0%. Similar changes occurred in TFH cells. IgE levels decreased by 9.7%; eosinophils remained stable. We determined robust and sustained real life effectiveness of tralokinumab which was associated with a profound systemic immune modulation characterized by a diminished Th2/Th17 activity and an increased Th1/regulatory signature, supporting a disease-modifying effect of this treatment.

P3. Skin Barrier and Phenotypes

P3#1183

MOISTURIZER EFFICACY AND PATIENT PREFERENCE IN ATOPIC DERMATITIS: BRIDGING THE GAP BETWEEN HYDRATION AND SUBJECTIVE EXPERIENCE IN ATOPIC DERMATITIS ACROSS SEVERITY SPECTRUM

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Atopic dermatitis (AD) is a chronic, relapsing inflammatory skin disorder associated with impaired skin barrier function. Moisturiser therapy is central to management. To evaluate the association between disease severity and the effectiveness of different moisturizers on skin hydration and patient satisfaction. 38 patients with AD were enrolled. Demographic and clinical characteristics, serum IgE, and AEC were documented. O-SCORAD used for severity assessment.Spearman's and Pearson correlation analyses were used to determine associations. Hydration effects of five moisturizers were tested using moisturometer readings at baseline, 1 hour, and 24 hours. Subjective patient-reported preferences were recorded using Visual Analogue Scale (VAS) scores. O-SCORAD was used for assessment of severity. Among moisturizers, occlusive (+10.3 units, $p < 0.001$), emollient-based (+9.9 units, $p < 0.001$), and avenanthramide-based (+17.0 units, $p < 0.001$) formulations showed significant hydration improvement at both 1 hour and 24 hours. Ceramide-based moisturizers reduced hydration by 24 hours (–10.1 units, $p = 0.002$), while humectants showed an initial reduction (–11.7, $p = 0.001$) but improved modestly at 24 hours (+4.3, $p = 0.032$). VAS preferences were inconsistent with hydration outcomes; only 18.4% of patients' subjective preferences aligned with objective hydration assessments. Occlusive, emollient, and avenanthramide-based moisturizers demonstrated superior objective skin hydration, while patient perception often diverged from measured outcomes, suggesting that sensory attributes influence preference. Aligning patient-reported outcomes with clinical efficacy could improve adherence and optimize management.

P4. Epidemiology and Outcome Research

P4#1000

EPIDEMIOLOGY OF ATOPIC DERMATITIS IN NEPAL: A CROSS-SECTIONAL, COMMUNITY-BASED SURVEY

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In Nepal, data on the epidemiology of atopic dermatitis (AD) remain limited despite the condition's rising recognition. Under-

ORAL LECTURE ABSTRACTS (OL)

standing the prevalence and demographic distribution of AD is imperative for effective healthcare planning and management. This study aims to examine the prevalence, demographic characteristics, and associated risk factors for atopic dermatitis among the Nepali population. A cross-sectional, community-based survey was conducted from March to September 2024 across diverse regions of Nepal, including urban and rural settings. A total of 3,00 participants aged 1-19 years were selected using stratified random sampling. Data collection involved structured interviews and clinical examinations based on the UK Working Party's diagnostic criteria for AD. Data on socioeconomic situation, environmental conditions, and familial history were also recorded. Data analysis included descriptive statistics and linear logistic regression. The overall prevalence of AD was 12.5%, with higher rates observed in children aged 5-12 years (75.8%). Urban residents had a significantly higher prevalence (16.4%) than rural residents (8.7%). Presence of family history of atopy was a strong predictor (OR: 3.2, 95% CI: 2.4-4.3). Environmental factors such as exposure to indoor pollutants was associated with increased risk. No significant gender differences were observed. Atopic dermatitis affects a notable proportion of Nepali population, particularly children and urban dwellers. Family history of atopy and environmental exposures are significant risk factors. These findings reveal the need for targeted public health interventions and awareness activities to optimize the management strategies for AD in Nepal.

P4#1010
ASSESSING ATOPIC DERMATITIS CONTROL IN CHINESE PATIENTS: VALIDATION OF THE CHINESE VERSION OF RECAP OF ATOPIC ECZEMA QUESTIONNAIRE (RECAP) AND AN INVESTIGATION INTO ITS INTERPRETABILITY

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A validation of the Chinese version of Recap of atopic eczema questionnaire (RECAP) is lacking. To evaluate construct validity, reliability, responsiveness, and interpretability of the Chinese RECAP. A prospective study was conducted at a Chinese tertiary hospital, enrolling adults with AD between April and November 2024. Participants completed RECAP, and reference instruments at three time points: baseline, 1-3 days later, and 4-6 weeks later. Construct validity was evaluated through hypotheses testing, while reliability was assessed using the standard error of measurement (SEMagreement) and intraclass correlation coefficient (ICCagreement). Disease control bandings for RECAP scores were proposed. Change-score interpretability was examined using the smallest detectable change (SDC) and minimally important change (MIC). The MIC values were estimated through receiver operating characteristics (ROC) analysis and predictive modelling. A total of 153 adults (mean age 28.4 years, 51.0% male) were included. Of the predefined hypotheses, 57.1% (single-score) and 71.4% (change-score) were confirmed, indicating moderate validity. The SEMagreement was 1.99 points, and the ICCagreement was 0.96, indicating excellent test-retest reliability. Proposed RECAP bandings were: 0-2 (completely controlled); 3-10 (mostly controlled); 11-12 (moderately controlled); 13-18 (a little controlled); 19-28 (not at all controlled), with a binary cutoff of 11 or more indicating uncontrolled AD. The MIC was 3.5 based on the ROC method and 0.6 after adjustment using predictive modelling. The Chinese RECAP is a valid, reliable, and responsive tool for assessing disease control. A binary cutoff of 11 or more points identifies uncontrolled AD, while an improvement of 6 or more points represents a clinically meaningful change.

P4#1022
CHARACTERISTICS AND DISEASE BURDEN OF ATOPIC DERMATITIS IN AUSTRALIA

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Atopic dermatitis (AD) affects up to 2.8 million Australians. This study examines the current characteristics of the disease and the burden placed on adults living with AD in Australia. A cross-sectional online survey of persons with AD (n = 300) enrolled in October 2024, examining self-reported demographics, AD characteristics, and burden of disease including the Patient Oriented Eczema Measure (POEM). All analyses were descriptive and assessed by skin tone, measured by Fitzpatrick skin scale (FSS). The mean (SD) age was 38.2 (11.87) years, with 53.7% female, 69.7% Caucasian, and 51.3% reporting skin tone as 'pale white' or 'white' on the FSS. AD was diagnosed by dermatologists in 50.3% and by general practitioners in 31.3% of cases. AD was active in 93.3% (n=277) of patients, with flares experienced for a mean (SD) of 56.9 (65.89) days over the past six months. The mean (SD) number of active flare days was higher in individuals with light brown or darker skin tones (67.3 [71.33] days) compared to those with white skin (47.0 [58.84] days). Of 244 employed patients, the mean (SD) number of days with a reduced work schedule due to AD in the previous month was 3.2 (3.22). AD impacted 59.0% (n=177) of patients' ability to engage in activities of interest. The mean (SD) POEM score was 14.6 (5.90), with 90.7% (n=272) of patients reporting disturbed sleep. A total of 48.3% (n=145) of patients had at least one comorbidity, the most common being allergies (29.0%, n=87), anxiety (24.0%, n=72) and depression (13.7%, n=41). There was a high level of active flares, as well as work and social impairment in moderate-to-severe AD. Nearly all experienced sleep disturbances, and the prevalence of anxiety and depression was high. There is a need for new treatments in Australia to alleviate AD burden.

P4#1025
DOES FREQUENCY OF BATHING IMPACT ECZEMA SYMPTOMS? A RAPID ECZEMA TRIALS RCT

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There is a lack of evidence regarding bathing frequency for patients with atopic dermatitis, meaning patients get varied advice. To test whether less frequent bathing improves eczema symptoms compared to daily bathing. Online randomised trial, co-designed by people with eczema, health professionals and researchers. The Eczema Bathing Study is the first citizen-science trial to be completed within the Rapid Eczema Trials project (www.RapidEczemaTrials.org). Included children and adults in the UK with self-reported eczema (excluded very mild eczema). Participants randomised to weekly bathing group (bath/shower 1 or 2 times a week) or the daily bathing group (6+ times a week) for 4 weeks. Primary outcome - participant reported eczema symptoms collected weekly using POEM (range 0 to 28). Randomised 438 people (108 children/330 adults). Daily bathing:

195/218 (89%) and weekly bathing: 193/220 (88%) were included in the primary analysis. Full adherence was reported by 202/278 (73%) of participants. No clinically important differences in eczema symptoms were detected. Mean [SD] POEM scores at baseline: 14.5 [5.7] in the daily bathing group and 14.9 [6.3] in the weekly bathing group. The adjusted mean difference in POEM score over 4 weeks for weekly versus daily bathing was -0.4 points (95% confidence interval -1.3 to 0.4, p=0.30). Sensitivity analysis imputing missing values were consistent with primary results. No serious unintended effects or harms were reported. These results give people with eczema the freedom to choose what bathing practice suits them best. Methodology from this study will be taken forward to future RAPID Eczema planned trials. Registration: ISRCTN12016473

P4#1026
RISK OF MAJOR ADVERSE CARDIOVASCULAR EVENTS IN ADULTS TREATED WITH JAK INHIBITORS FOR ATOPIC DERMATITIS: A NATIONWIDE POPULATION-BASED STUDY USING THE FRENCH CLAIMS DATABASE

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In 2022, the PRAC (Pharmacovigilance Risk Assessment Committee) recommended limiting JAK inhibitors (JAKi) use in cardiovascular (CV) risk patients, regardless of indication-including atopic dermatitis (AD)-based on a non-inferiority trial in rheumatoid arthritis (RA). However, extrapolating these findings to AD is questionable, given RA's pro-atherogenic profile contrasting with inconsistent evidence linking AD to CV risk. Our objective was assessing whether AD patients treated with JAKi had an increased risk of MACE compared to the general population. Using the French claims database, we built up two AD cohorts: one on JAKi, one on biologics (2018-2024). Each one was compared to the general population using age- and sex-standardized incidence ratios (SIRs), before and after treatment. The primary composite outcome was myocardial infarction (MI) and ischemic stroke; broader MACE definitions and a CV risk standardization were conducted in sensitivity analyses. JAKi cohort's patients (n=4,300) were younger (mean age 38.4 vs 47.1) and had fewer comorbidities (17.1% vs 38.2% with ≥1 PRAC criterion) than those in the biologic cohort (n=23,574). For the primary outcome, 3 MACEs occurred on JAKi in the 1st treatment year (2,627 person-years [PY]), yielding an SIR of 0.84 (95% CI: 0.17-2.45). In the biologic cohort, MACE risk was higher in the year before (104 events over 23,187 PY, SIR 1.34; 95% CI: 1.10-1.63) and after treatment (70 events over 16,085 PY, SIR 1.38; 95% CI: 1.07-1.74) but not in the 2nd year of exposure, suggesting an AD-CV risk link, with the role of a systemic inflammation induced by a chronic and severe AD. Sensitivity analyses yielded similar results. In this population-based study, no increased risk of MACE was observed in AD patients treated with JAKi, suggesting a reassuring CV safety of JAKi in AD, despite limited statistical power.

P4#1033
EMPOWERING COMMUNITY HEALTH WORKERS FOR EARLY DETECTION AND REFERRAL OF ATOPIC DERMATITIS IN UNDERSERVED AREAS OF MULTAN, PAKISTAN

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In underserved regions of Pakistan, Atopic Dermatitis (AD) often remains undiagnosed or mismanaged due to limited access to specialized care and lack of awareness at the community level. Community Health Workers (CHWs) are well-positioned to bridge this gap through early identification and referral of potential AD cases. To assess the feasibility and impact of training CHWs for early detection and referral of AD cases in low-income communities of Multan. A 6-month pilot intervention was conducted in 8 urban slums of Multan. Ten CHWs were trained through a structured program covering AD recognition, basic skin care advice, and referral criteria. Standardized reporting forms were used to document suspected cases. Referred patients were evaluated by a physician for confirmation. Pre- and post-training assessments of CHWs were conducted, and referral outcomes were tracked. CHWs reported 146 suspected AD cases during the intervention, of which 124 (84.9%) were clinically confirmed. Compared to baseline, referrals increased by 3.2-fold. CHWs' post-training knowledge scores improved by 62%. Community members expressed higher confidence in CHWs' dermatologic guidance. Follow-up adherence also improved among referred cases. Training CHWs is a feasible and effective strategy to enhance early detection and referral of AD in resource-limited settings. Integrating CHWs into dermatologic outreach may significantly improve outcomes in vulnerable populations.

P4#1037
ATOPIC DERMATITIS PREVALENCE AND INCIDENCE 1992-2024: A SYSTEMATIC REVIEW AND META-ANALYSIS.

Suzanne H KEDDIE[1], Chih-Ya CHANG[1], David PRIETO-MERINO[2], Helen ALEXANDER[1], Piers ALLEN[1], Rania AL-MUKHTAR[3], Bernd ARENTS[10], Kaitlyn CHAN[1], Hsuan-Chi CHEN[5], Ching-Chi CHI[5,6], Chia-Yu CHU[9], Paul-Chen HSIEH[9], Po-Wei HUANG[9], I-Hsuan HUANG[9], Jennfier J KOPLIN[8], Chien-Cheng LAI[5], Justin LIM[11], Ashton NEO[3], Sille NØRFJAND[4], Sian El-Lousie OBENG[3], Erin PITT[8], Karen POOLE[3], Emily POYSER[3], Tanzil RUJEEDAWA[13], Tara SAPKOTA[3], Desalegn M SHIFTI[8], Johnathan SUN[3], Kevin TONG[12], Bisam UL-HAQ[14], Christian VESTERGAARD[4], Yik Weng YEW[7], Carsten FLOHR[1]

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Atopic dermatitis is a common inflammatory skin disease with a significant global burden. With the World Health Assembly's (WHA) recent resolution recognising skin diseases as a public health priority, it is increasingly important to quantify the global prevalence and incidence of atopic dermatitis. To systematically review and estimate the national, regional and global prevalence and incidence of atopic dermatitis in children and adults. We systematically reviewed MEDLINE, Embase, and Web of Science databases from January 1, 1992 to July 31, 2024. We included original, population-based studies from any country across all ages that reported the prevalence and/or incidence of atopic dermatitis. We will use a Bayesian hierarchical random effects model to estimate the prevalence and incidence of atopic dermatitis worldwide and by geographic region, including individual estimates for each country in two age groups (children and adults). We screened 30,572 titles and abstracts, and 3,187 were included in full-text screening. To date, 75% of full texts have been screened, and data abstraction is underway, with 382 articles already abstracted, ready for analyses. By October, we will have estimated the prevalence and incidence of atopic dermatitis in every country. We will also estimate pooled global and regional prevalence summaries, with associated uncertainty intervals, for both children and adults. This review will provide the most comprehensive global, regional, and national estimates of the burden of atopic dermatitis to date. All data will be made publicly available as part of a living systematic review that will be updated annually. These estimates are both timely and urgent, following the WHA resolution recognising skin diseases as a public health priority. They serve to support policy development, guide funding decisions, and enable monitoring and evaluation of progress in addressing the burden of atopic dermatitis, a common skin disease.

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P4#1042
PREVALENCE OF ATOPIC DERMATITIS IN ADULTS WITH MODERATE TO SEVERE ASTHMA MANAGED AT A SPECIALIZED DERMATOLOGY AND PULMONOLOGY REFERRAL CENTER IN SOUTHERN BRAZIL

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Atopic dermatitis (AD) and asthma are frequently associated diseases with similar pathophysiology. AD usually occurs earlier in life, and it is a risk factor for developing asthma, a phenomenon commonly referred to as the "atopic march". The prevalence of AD among asthmatic patients is uncertain. To estimate the prevalence of past or current AD in adult patients with moderate to severe asthma, and to assess their clinical profile compared to those without history of AD. This cross-sectional study included adults with moderate to severe asthma at the Department of Pneumology of the Santa Casa de Porto Alegre hospital complex, in southern Brazil. Patients signed an informed consent form, were interviewed through standardized questionnaires, and had their skin examined by a physician trained in Dermatology. The research protocol was approved by the institutional Research Ethics Committee. Statistical analysis was performed through chi2 and Fisher's exact tests. A total of 53 patients were included, of whom 46 were female. Mean age was 57.7 ± 12 years. Mean number of medications in use for asthma was 2.8 ± 0.9, while 30% patients were using biologics for asthma. The estimated prevalence of past or current AD was 17% (95% CI: 8%–28%). Compared to those without a history of AD, patients with current or past AD had a significantly lower mean age (49.6 ± 9 years vs. 59.3 ± 12 years, $p < 0.05$) and a higher prevalence of any skin lesion (44% vs. 11%, $p < 0.05$). Participants with active AD had

only mild disease. The estimated prevalence in this study aligns with the 15% prevalence reported in the literature. The significantly younger age of the AD group may be related to the fact that AD tends to improve with age, but it also may reflect a potential recall bias. The higher prevalence of any skin lesion can be due to the disease itself and the associated skin barrier dysfunction.

P4#1048

TREATMENT SATISFACTION AND QUALITY OF LIFE IN KOREAN MODERATE TO SEVERE ATOPIC DERMATITIS PATIENTS BASED ON CURRENT TARGETED THERAPY

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Atopic dermatitis (AD) impairs quality of life (QoL). In Korea, under national health insurance, only the severe AD qualifies for reimbursed targeted therapy, limiting access for moderate AD despite negative impact on QoL. This study evaluated the clinical features, QoL, and treatment satisfaction in patients with moderate and severe AD, comparing targeted with non-targeted therapy. Between Oct 2023–Apr 2024, AD patients aged ≥12 were enrolled and grouped by EASI score (moderate <23; severe ≥23). Patients continuing the same therapy for 12–24 weeks were enrolled. The groups were divided by targeted (JAK inhibitor and dupilumab) and non-targeted (conventional systemic) therapy. Satisfaction, QoL and clinical features were measured by DLQI/CDLQI, TSQM, and medical records. The moderate and severe AD patients included 84 [mean±SD age 27.3±9.9 years, EASI 17.1±1.5] and 87 [25.7±7.7 years, 26.1±3.9]. In moderate AD, patients with lichenification (targeted vs non-targeted; 82.1% vs 30.4%, p<0.01) and erythema (39.3% vs 16.1%, p=0.04) received targeted therapy than non-targeted therapy. DLQI/CDLQI were not significantly different between targeted and non-targeted therapy in both groups. In moderate AD, non-targeted therapy yielded higher TSQM for side effects (p=0.03). Patients treated with targeted therapy in severe AD reported significantly higher effectiveness and global satisfaction on the TSQM (p<0.01). Targeted therapy in severe AD improved satisfaction on effectiveness and overall experience of treatment. Patients with lichenification and erythema in moderate AD could be considered for the targeted therpy. The marginal difference of QoL between the groups suggests that various aspects (e.g. demographic, clinical features and reimbursement etc.) should be considered when evaluating QoL that is not fully explained by (C)DLQI alone.

P4#1056

TREATMENT SATISFACTION OF ADULT PATIENTS WITH MODERATE-TO-SEVERE ATOPIC DERMATITIS TREATED WITH METHOTREXATE IN MADAGASCAR.

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Atopic dermatitis (AD) is a chronic inflammatory skin disorder associated with a heteregeneous presentation and considerable disease burden. Exploring AD treatment patterns and patient benefits could improve disease management. An ongoing interventional randomized trial assess the safety and efficacy of methotrexate, to treat adult patients in Madagascar with moderate to severe AD during 24 weeks. We aim to explore patient satisfaction treated by methotrexate at the sixteenth week. Adults with moderate-to-severe AD treated by methotrexate for ≥ 16 weeks completed a questionnaire survey. Patients reported demographic, disease, and treatment information. Treatment satisfaction was assessed using Treatment Satisfaction Questionnaire for Medication version II (TSQM II) which contains 11 items subdivided in four subscales, including effectiveness (1-2), side effects (4-6), the convenience of use (7-9), and overall satisfaction (10-11). The total domain scores ranged from 0 to 100, with higher scores indicating better outcomes for the respective domains. The survey was completed by 21 patients with a mean age of 46.4 years (SD=21.5), 9 were female. At methotrexate initiation, 9 presented severe AD according to SCORAD, 16 had body surface area (BSA) involvement> 20%. Using TSQM II, patients reported a mean global satisfaction score of 63.06 (SD=35.35) and an effectiveness score of 57.9 (SD=29.4). Mean TSQM II convenience score and side effects score were 64.5 (SD= 39.2) and 45.8 (SD=29.4), respectively. Factors associated with increased patient treatment satisfaction included male gender, improvement of itch and DLQI score. Patients with initial BSA > 30% reported lower treatment satisfaction. Recognizing which factors are associated with treatment satisfaction can help inform counseling and decision-making strategies.

P4#1069

THE IMPACT OF ATOPIC DERMATITIS ON CAREGIVERS' QUALITY OF LIFE IN ETHIOPIA

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Atopic Dermatitis (AD) significantly impacts the physical and psychological well-being of children and caregivers. As AD

severity increases, so does its adverse effect on the family's emotional, social, and economic quality. However, caregiver challenges remain underreported, particularly in developing countries To assess the impact of AD on the quality of life (QoL) of caregivers of children with AD in central and southern Ethiopia. A hospital-based cross-sectional study was conducted among 461 caregivers from four randomly selected hospitals in Central and Southern Ethiopia from October 2022 to December 2023. Systematic sampling technique was used. Trained nurses collected sociodemographic and clinical data. The Dermatitis Family Impact (DFI) questionnaire is used to assess QoL, and the SCORAD index to measure the severity of the disease. Descriptive statistics, Spearman rank correlation, and one-way analysis of variance (ANOVA) were used for data analysis, with p-value <0.05 considered statistically significant. Out of 461 AD-diagnosed children, 212 (46%) were girls, and 249 (54%) were boys. The mean DFI score was 9.64 (±6.44); 32.3% had mild, 46.2% moderate, and 21.5% severe AD. The primary caregivers were mostly first-degree family members, 62% mothers and 27.2% fathers. A significant correlation was found between the DFI and SCORAD scores (p<0.0001). Affected QoL areas included sleep, leisure, food preparation, emotional distress, tiredness of the caregiver, treatment involvement, and family relationships. DFI scores were influenced by caregiver occupation, education, and child comorbidities. Caring for a child with AD significantly reduces caregiver QoL, especially as disease severity increases. Targeted support and caregiver education are crucial to improving outcomes for both children and families.

P4#1076

UNDERSTANDING THE DRIVERS OF PLACEBO RESPONSE IN ATOPIC DERMATITIS: A META-ANALYSIS OF RANDOMIZED CONTROLLED CLINICAL TRIALS

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Observations across clinical trials in atopic dermatitis (AD) show that placebo response rates (PR) are frequently high, but variation in placebo rates across trials of systemic agents is not well-described. This study aimed to quantify the placebo effect, and effects of protocol design and other factors, like topical anti-inflammatory medications (TAI). 68 studies from the systemic review and network meta-analysis by Drucker, et al (2024) on systemic immunomodulatory treatments for AD with a placebo arm and EASI75 results were used to evaluate PR. Factors included TAI use, drug classes, study start date, trial duration, blinding, baseline disease severity and patient age. While EASI75 is usually reported as a binary outcome at the patient level, we investigated placebo effect at a study level. The outcome was defined as the proportion of patients achieving 75% reduction in EASI scores. A multivariate linear regression model was used to assess the effect of these study factors, with a 5% level of significance. In a univariate analysis, median PR was 18% (13%-26% IQR). Median PR was 26% for studies that allowed TAI and 14% in studies that did not. Median PR for JAK inhibitors, traditional systemics, biologics, and other drug classes was 18%, 15%, 19%, and 28%, respectively. Adult-only, pediatric-only, and combined studies had a median PR of 20%, 20%, and 16%, respectively. The multivariate model showed PR of TAI was 2x higher vs. non-TAI; and in drug classes, JAK inhibitors had lower PR than biologic studies. Studies were categorized based on study start dates: those that started between 2016 - 2020 had a higher PR compared to 2013 - 2015. Longer study durations were also associated with lower PR. TAI use and study start year explained ~50% of the variation in PR. In trials of systemic medication for AD, PR are higher in trials allowing TAI and have increased over time.

P4#1080

CLINICAL CHARACTERISTICS AND TREATMENT PATTERN ANALYSIS OF SEVERE ATOPIC DERMATITIS PATIENTS RECEIVING BIOLOGICS OR JAK INHIBITORS: A SINGLE-CENTER STUDY

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Biologics and JAK inhibitors have revolutionized the treatment landscape for severe atopic dermatitis(AD). However, real-world data on treatment selection patterns and phenotype-based preferences remain limited, particularly in Asian populations. To investigate clinical characteristics, phenotypes, and prescribing patterns in patients with severe AD treated with biologics or JAK inhibitors, and to identify factors associated with treatment response. This retrospective study included 110 adult patients (≥18 years) with severe AD (baseline EASI ≥23) who received at least one prescription of dupilumab, tralokinumab, upadacitinib, or baricitinib and were followed for over one year at a single dermatology clinic. Clinical features, AD onset age, IgE levels, and phenotypes were reviewed. Logistic regression analyses were performed to evaluate factors influencing treatment selection and response. Among 110 patients, dupilumab (60%) was most commonly prescribed, followed by upadacitinib (20%), baricitinib (14%), and tralokinumab (5.7%). Mean baseline EASI was 26.3; 71% were male. Most patients showed extrinsic features based on IgE. Biologics treated group was associated with higher baseline EASI (OR=1.22, p=0.0003), while JAK inhibitors were preferred in patients with lichenoid phenotype (OR=3.03, p=0.045) and hand/foot involvement (OR=4.5, p=0.0024). IgE level and head/neck involvement did not affect treatment choice. Higher baseline EASI predicted fast response, while itraconazole administration history was linked to partial response in our study. This study identified clinical features linked to treatment choice in severe atopic dermatitis. Lichenoid phenotype and hand/foot involvement were more often associated with JAK inhibitor use, supporting personalized treatment approaches.

P4#1105

ANCESTRY-SPECIFIC EFFECTS OF LIPID-LOWERING MEDICATIONS ON ATOPIC DERMATITIS: EVIDENCE FROM MENDELIAN RANDOMISATION AND A NESTED CASE-CONTROL STUDY

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Lipid-lowering medications (LMs) have been linked to the risk of atopic dermatitis (AD) in observational studies, but their causal role across ancestries remains unclear. To assess the effect of LMs on AD using two complementary study designs. Mendelian randomisation (MR) was performed using instruments to capture four known lipid-lowering drug targets derived from GWAS summary statistics of lipid traits (up to 1.5M individuals). Genetic associations with AD were obtained from people of European (EUR), East Asian, and African (AFR) ancestries across (101,346 cases/1,462,733 controls). Second, we performed a nested case-control study (NCC) using UK Biobank (UKB) data. Incident AD cases were matched to five controls on date of cohort entry (±6 months), age (±2 years), sex, and centre. Statins use within 1 year prior to AD diagnosis was the exposure. Odds ratio was estimated using conditional logistic regression adjusting for potential confounders. Genetically proxied HMGCR inhibition reduced AD risk in AFR (OR=0.31; 95%CI=0.11-0.87 per SD LDL reduction). NPC1L1 increased AD risk in EUR (OR=1.32; 95%CI=1.02-1.70 per SD reduction in total cholesterol) but reduced risk in AFR (OR=0.18; 95%CI=0.05-0.65 per SD LDL reduction). Genetically proxied PCSK9 and CETP inhibitions reduced AD risk in EUR. The incidence rate of AD from the UKB data was 24 per 10,000 patients-years at risk. Statins exposure was significantly higher among cases (18%) than controls (9.0%). Statin use was associated with increased AD risk (aOR=2.24; 95%CI=2.00-2.54). MR findings, representing the effect of long-term exposure, indicate that LMs may have ancestry-specific effects on AD risk. Short-term initiation of statins increased the risk of AD in real-world data from UKB, which predominantly includes EUR, highlighting statins initiation as a potential reason for onset of AD.

P4#1111

ASSESSMENT OF ATOPY HISTORYBIN INFANTILE ATOPIC DERMATITIS PATIENTS ATTENDING DERMATOLOGY CLINIC AT ALERT HOSPITAL

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Atopic dermatitis(AD) is a chronic relapsing itchy eczematous dermatologic condition occurring in individuals with a personal or family history of Atopy.AD affects persons of all ages but more common among children and has been reported to affect 10% of children. To assess atopic history in infantile AD patients seen at All African Leprosy Rehabilitation and Training center(ALERT) dermatology clinic from April to September, 2018. Institution based crossectional prospective study was carried out on all infantile AD patients who were seen at ALERT dermatology clinic,pediatrics OPD from April from April 2018- September 2018. the dependent variable was Atopy history and the independent variables were age sex and atopic dermatitis.The data was collected using formatedquestioner by dermatovenerology residents and it was analyzed by descriptive statistics using version 20 SPSS software. Among the total 131 infantile AD patients, around 58% of patients has history of Atopy and all were having family Atopy history rather than personal Atopy. 26.7% of atopy type was asthma, 27.5% of atopy was allergic rhenitis and atopic dermatitis were seen in 3.8% of the cases. This study also proved that first degree and second degree family members were affected in 65.7% and 34.2% respectively among those with Atopy history. Paternal Atopy history were more found than maternal Atopy, 16.8% and 14.5% respectively. Infantile AD occured more in those children with family history of atopy. First degree relatives,out of which paternal Atopy was recognized in these patients. Allergic rhenitis were the predominant type of atopy followed by asthma and then atopic dermatitis.

P4#1117

CLINICAL VALIDATION OF THE UPDATED KOREAN DIAGNOSTIC CRITERIA FOR ATOPIC DERMATITIS: A MULTICENTER CROSS-SECTIONAL STUDY

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Accurate diagnosis of atopic dermatitis (AD) remains challenging due to the absence of definitive biomarkers and the wide spectrum of clinical phenotypes, particularly in Asian populations. In 2023, the Korean Atopic Dermatitis Association (KADA) introduced updated diagnostic criteria aiming to enhance usability and diagnostic accuracy in clinical settings. To validate the updated KADA criteria and assess their diagnostic performance in comparison with the previous KADA and Japanese Dermatological Association (JDA) criteria. A multicenter, cross-sectional study was conducted at seven university hospitals across South Korea. A total of 231 patients with dermatologist-diagnosed AD and 81 non-AD controls were included. Sensitivity, specificity, positive and negative predictive values (PPV, NPV), Youden's index, and error rates were analyzed for each diagnostic framework. The updated KADA criteria demonstrated the highest sensitivity (63.2%), enabling better detection of mild or atypical cases often missed by other standards. Although specificity (82.7%) was moderately lower than the previous KADA (88.9%) and JDA (95.1%) criteria, the updated criteria maintained a high PPV (91.0%) and exhibited the lowest error rate (31.4%), suggesting balanced overall performance. Notably, the simplified structure comprising three essential features enhanced clinical applicability without compromising diagnostic power. The updated KADA criteria provide a practical and intuitive tool for AD diagnosis, particularly effective in diverse Korean clinical populations. These results support broader implementation of the revised criteria to improve diagnostic consistency, early detection, and appropriate disease management in real-world settings.

P4#1127

MEASURING ATOPIC DERMATITIS SEVERITY FROM THE PATIENT PERSPECTIVE IN A PEDIATRIC DERMATOLOGY CLINIC

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Atopic dermatitis (AD) is a chronic inflammatory condition that can wax and wane, presenting in early childhood and persisting into adulthood. Patients with AD are afflicted by symptoms such as pain, itch, dryness, sleep disturbances, and bleeding. The purpose of this study was to qualify symptoms of AD as experienced by patients in the real world in a Pediatric Dermatology clinic. The primary objective was to assess patient-reported outcomes of AD using the Patient-Oriented Eczema Measure (POEM) questionnaire. The POEM questionnaire stratifies AD severity in categories based on the weight designated to each survey question. The secondary objective of this study was to evaluate changes in POEMs longitudinally. The study was deemed exempt by the IRB (HSC-MS-23-0347). POEM surveys were distributed to caregivers in the Pediatric Dermatology clinic at UT Physicians between May 2023 and May 2025. De-identified demographic and disease assessment data were collected from patients via paper-based POEM surveys. Descriptive statistical analyses were performed by Pfizer Field Medical Outcomes. A total of 159 respondents completed POEM surveys. The average age was 6.8 ± 6.3 years. 117 (74%) of participants had only one visit, and the remaining 42 (26%) had 2 or more visits. At Visit 1, the average POEM score was 12.6 ± 8.0 and two-thirds of patients had moderate to very severe eczema. Among the 42 patients with POEM scores captured at Visit 2, the average score was 9.2 ± 6.5. The average time between Visits 1 and 2 was 8.0 ± 5.3 months. Improvements in POEM scores were observed from Visit 1 to Visit 2, and there was a decrease in the proportion of patients with moderate to very severe eczema. There exist opportunities to integrate POEM scores into the clinic's AD workflow to monitor patient-reported outcomes, enhance clinical decision-making, and improve patient care over time.

P4#1137
RISK FACTORS ASSOCIATED WITH SEVERE ATOPIC DERMATITIS IN MALAGASY ADULT PATIENTS

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Atopic dermatitis (AD) is a chronic inflammatory skin disease that affects many people worldwide. A recent Malagasy study showed a predominance of moderate to severe forms in adults. However, data on severity risk factors of AD in adults remain limited. A pilot study aimed to investigate the predictive factors of severe AD in Malagasy adults, seen in the dermatology departments of Antananarivo, was conducted. This was a cross-sectional, analytical study conducted for 25 months from June 2023 to July 2025, involving 36 adults (≥18 years) with moderate to severe AD according to SCORAD index. Sociodemographic factors, comorbidities, environmental exposures, clinical factors, and blood eosinophil count were collected. Bivariate analyses were followed by a binary multivariate logistic regression based on severity. The mean age of our patients was 41 ± 19.6 years with a sex ratio of 1.1. Early-onset AD (<2 years) was found in 11.1% (n=4) of cases, while adult-onset was noted in 61.1% (n=22). Personal atopy was found in 83.3% (n=30), including asthma in 36.7% (n=11. Smoking was reported in 27.8% of cases (n=10). Regarding environmental factors, 66.7% (n=24) used charcoal at home, and 69.4% (n=25) had domestic animals. Finally, 36.1% (n=13) had hypereosinophilia (PNE >500/mm³). Among participants, 23 patients (63.9%) had a severe form according to SCORAD. Male gender was associated with a higher risk of severe AD (OR = 8.4; 95% CI [1.18–58.8]; p = 0.034). Age under 65, suburban origin, asthma, household exposure to charcoal smoke, and presence of domestic animals were all associated with a strong trend toward developing severe AD, though without statistical significance. Male gender is associated to AD severity according to the literature. Our study suggests potential risk factors for severe forms of AD among Malagasy adults which will guide the design of a larger-scale future study.

P4#1162
A COMPARATIVE ANALYSIS OF ATOPIC DERMATITIS REGISTRY DATA: INSIGHTS FROM AUSTRALIA (2023-2025), EUROPE, ASIA, NORTH AMERICA, AND AFRICA.

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Atopic dermatitis (AD) is a chronic inflammatory pruritic skin disease with significant global burden. National registries provide essential real-world data for a better understanding of disease burden, management and patient outcomes. Two years (2023–2025) of key metrics from the Australian Atopic Dermatitis Registry is compared with existing published registry data from Europe, Asia, North America, and Africa. An observational analysis of de-identified patient data from the Australian Dermatology Registry (ADR) was conducted. Areas examined included demographics, disease duration, severity (EASI), co-morbidities (DLQI), treatment patterns (including biologic use), and patient-reported outcomes. Comparative analyses were made against published international registries (via Pubmed search terms: registry atopic dermatitis). Two thirds (67%) of patients in the Australian registry (between 2023-2025) received treatment for atopic dermatitis with a single biologic therapy. Australian registry patients with AD typically had the disease for 2 years, had mean age of 16 (noting a wide distribution between 0 to 86), had a generalised distribution, and were more likely to be overweight or obese, and non smokers. There was no sex predilection. Disease characteristics of patients in other international AD registries were reviewed and compared. Registry data collected in 5 major continents provides key observational data for a better understanding of atopic dermatitis burden and prognosis in diverse skin types. Disease co-morbidities were similar and include atopy (rhinitis, asthma). Disease distribution, severity, and timing to access to biologic treatments were variable. It was also noted that AD symptoms and treatment exposures were not consistently captured amongst global registries. Africa is the only nation to lack an AD registry.

P4#1180
TREATMENT PATTERNS OF PEDIATRIC PATIENTS WITH ATOPIC DERMATITIS: A 10-YEAR ANALYSIS IN A REFERRAL UNIVERSITY HOSPITAL

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Atopic dermatitis (AD) is a prevalent chronic inflammatory skin disease in children, requiring long-term, multimodal management. However, real-world evidence on treatment patterns and determinants of therapy remains limited. To study topical

non-steroidal drug use and treatment trends in pediatric AD patients at a referral center over 10 years. A study was performed among 3,982 pediatric AD patients. Demographic characteristics, healthcare utilization, and treatment prescriptions were analyzed. Logistic regression was used to identify factors associated with topical non-steroidal medication use. There were 49.2% males and 50.8% females, with a median age of 12. The most common therapies were antihistamines (75.0%), topical corticosteroids (47.6%), systemic immunosuppressants (15.7%), and biologics (0.1%). The majority (36.1%) were moderate-potency corticosteroids, with higher-potency use increasing with age. The moisturiser rate was 43.9%. Topical non-steroidal medicine was given to 12.7%. In multivariable analysis, adolescents were less likely to get topical non-steroidal medication than infants (OR 0.66, 95% CI 0.50–0.87, p=0.003). Patients with Civil Government Department (CGD) scheme were more likely to receive topical non-steroidal medication than NHSO (OR 8.40, 95% CI 5.76–12.25, p<0.001) and self-pay patients (OR 2.66, 95% CI 2.14–3.30, p<0.001). Pediatric AD management in Thai referral center was dominated by antihistamines and moderate-potency corticosteroids, with limited use of biologics and topical non-steroidal medications. Access to topical non-steroidal agents was strongly influenced by age and insurance scheme, underscoring disparities in treatment availability. These findings highlight the need for equitable access to advanced therapies in pediatric AD care.

P5. Itch and Prurigo

P5#1029
DUPILUMAB IMPROVES SIGNS AND SYMPTOMS IN ADULT PATIENTS WITH MODERATE-TO-SEVERE ATOPIC DERMATITIS AND SEVERE ITCH

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Itch, the most burdensome atopic dermatitis (AD) symptom, impairs quality of life and mental well-being even in the absence of skin lesions. It exacerbates AD by perpetuating the itch-scratch cycle. Yet, few studies look at therapeutic efficacy in patients with severe itch at baseline (BL). We analyzed the efficacy and safety of dupilumab for moderate-to-severe AD in patients with severe itch at BL in the 52-week LIBERTY AD CHRONOS trial (NCT02260986). CHRONOS enrolled patients aged ≥18 years with moderate-to-severe AD. In this post hoc analysis, severe itch was defined as BL Peak Pruritus Numeric Rating Scale (PP-NRS) score ≥7. 213/315 (67.6%) patients treated with placebo + topical corticosteroids (TCS) and 77/106 (72.6%) patients treated with dupilumab every 2 weeks + TCS met severe itch criteria. AD signs (Investigator's Global Assessment, IGA) and itch (PP-NRS ≥4-point improvement from BL) were analyzed at Weeks 2/16/52. Missing data and patients who used rescue treatment were considered non-responders. In dupilumab recipients with severe itch at BL, 45.1% achieved IGA score (0/1) and a ≥2-point improvement at Week 16 compared to 12.4% of placebo recipients (P<0.0001). These improvements were sustained until Week 52 (37.5% vs 18.5%; P<0.005). In addition, 22.1% of dupilumab recipients achieved a ≥4-point improvement in PP-NRS scores at Week 2 vs 9.9% placebo recipients (P=0.005). These rapid improvements continued through to Week 16 (71.8% vs 36.2%; P<0.0001) and sustained until Week 52 (76.3% vs 38.9%; P<0.0001). IGA and PP-NRS responses in the overall population were numerically similar at all timepoints assessed. Safety data were consistent with the known dupilumab safety profile. This analysis shows that dupilumab + TCS treatment provided rapid and long-term efficacy for moderate-to-severe AD, even among patients with severe itch at BL.

P5#1051
OPTIMAL DOSE FINDING OF TRPM8 AGONIST CRYOSIM-1 FOR ANTIPRURITIC THERAPY: A RANDOMIZED CONTROLLED TRIAL

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Pruritus is a common and distressing symptom in many dermatologic and systemic conditions, often impairing skin barrier function and quality of life. While moisturizers are commonly used, their antipruritic efficacy is limited. Cryosim-1, a selective TRPM8 agonist, shows promise by relieving itch through its cooling effect on the skin. This study aimed to evaluate the efficacy, safety, and optimal concentration of low-dose Cryosim-1 cream formulations (0.1% and 0.5%) in adult patients with chronic pruritus. In a randomized, double-blinded, vehicle-controlled clinical trial, 30 adult participants with chronic pruritus were assigned equally to three groups: C0 (vehicle cream), C1 (Cryosim-1 0.1% cream), and C5 (Cryosim-1 0.5% cream). The primary endpoint was the change in 24-hour itch intensity (NRS) from baseline to week 4. Secondary endpoints included TEWL, SCH, DLQI, 5-D Itch Scale, post-application NRS responses, satisfaction ratings, and adverse events. Both Cryosim-1 formulations significantly reduced TEWL and improved SCH compared to the control group. The C1 and C5 groups demonstrated significant reductions in 24-hour itch NRS, DLQI, 5D Itch Scale scores, and area under the curve (AUC) of itch NRS within 10 minutes of application. While peak pain NRS and AUC were significantly higher in the C5 group, C1 did not differ significantly from the control. Participant satisfaction regarding itch relief was highest in the C5 group (80%), followed by C1 (60%) and C0 (40%). Transient erythema and stinging were more frequently reported in the C5 group, though all symptoms resolved spontaneously. Cryosim-1 cream at 0.1% is considered the optimal and safer option for relieving pruritus and improving skin barrier function, offering comparable efficacy to the 0.5% concentration with fewer adverse effects.

P5#1052
RESEARCH ADVANCES IN ITCH MECHANISMS OF PEDIATRIC ATOPIC DERMATITIS

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Atopic dermatitis is one of the most prevalent chronic inflammatory skin disorders in children, characterized by intense pruritus, epidermal barrier dysfunction, and immune dysregulation. The substantial socioeconomic burden of AD is largely driven by refractory itch, which triggers scratching-induced complications including sleep disruption, skin infections, neurocognitive impairment, and growth retardation, significantly diminishing

quality of life. This review synthesizes current evidence on the neuroimmune mechanisms underlying pediatric AD-associated pruritus, emphasizing key receptors, signaling pathways, and effector cells to inform targeted therapeutic strategies. We conducted a comprehensive analysis of recent literature, integrating preclinical and clinical studies to elucidate: Classification of itch; Pruritogens and their receptors; Peripheral/central neural sensitization and itch transmission circuits; Mechanisms of emerging biologics and small-molecule inhibitors. AD pruritus arises from a self-perpetuating triad of epidermal barrier disruption, immune dysregulation, and neural rewiring. Key therapeutic targets include: IL-4Rα, IL-31RA, JAK1, TSLP, AhR, PDE4, effector cells,etc. Pediatric AD pruritus is a multidimensional disorder involving barrier-immune-neural axis dysregulation. Biologics targeting Th2 cytokines and JAK-STAT inhibitors provide rapid relief, while barrier repair agents and neuromodulators represent future directions. Personalized combinatorial approaches hold potential for recalcitrant itch management.

P5#1154
UNCOVERING ALLERGEN TRIGGERS IN VULVAL IRRITATION: A SEVEN-YEAR RETROSPECTIVE ANALYSIS OF PATCH TESTING REFERRALS

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Vulval pruritus is often a debilitating symptom that can have a profound impact on quality of life. It can be the result of inflammatory, infectious, or neoplastic conditions. Among causes, inflammatory dermatoses are the most prevalent cause of itch. The prevalence of vulval itch in the general population is 5-10%, however it comprises up to 70% of presentations to specialists managing vulval conditions. A retrospective audit of patients referred for persistent vulval irritation to a specialist dermatology outpatient clinic was conducted between 2018 and 2025, focusing on cases of suspected allergic contact dermatitis. Twenty-nine patients were patch tested using the Australian Baseline Series (ABS), with many also tested with personal care products. A history of atopy was present in 53.8% of patients. All participants showed at least one positive reaction: 26.9% exhibited a strong positive reaction, 65.4% had at least one moderately positive reaction, and 7.7% showed only weak positive reactions. The most common implicated allergens within the Australian Baseline Series (ABS) were Hydroperoxides of Limonene (61%) and Ammonium Persulfate (50%). Personal product patch testing was performed in 85% of cases, with 73% reacting moderately or strongly to at least one product category. The most commonly associated product classes were shampoos (78%) and body washes (69%). This retrospective audit discovers sensitising agents in patients referred for persistent vulval symptoms and identifies trends in allergens. Notably, all patients were referred by a single gynaecologist, potentially reflecting a subset of more treatment-refractory cases and limiting generalisability. We will discuss diagnostic challenges, prevalent allergen patterns, and management strategies for patients in whom patch testing may not be feasible.

P5#1155
IN VITRO TRIAGE OF ANTI PRURITIC COMPOUNDS

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Chronic pruritus is often described as the most burdensome symptom of atopic dermatitis (AD). This persistent itch perpetuates a vicious itch-scratch cycle, which exacerbates skin barrier dysfunction and inflammation. At a cellular level, itch signals are primarily transmitted by specialized intra-epidermal (dermal) nerve fibers (IENF) through various receptors such as PAR-2, TRPV1, or the MRGPR family. Furthermore, inflammatory mediators like TSLP or BNP contribute to sustaining this vicious circle. To evaluate a novel complex of active ingredients for its capacity to inhibit itch receptor activation and inflammatory mediator release in in vitro models, we assessed the inhibitory effects of the compounds on various itch receptors of interest (PAR-2, TRPV1, TRPA1, PAR-4, MRGPRX1, MRGPRX2, MRGPRD) on recombinant cell lines using fluorimetry to measure calcium mobilization. Inflammatory mediator release was measured using ELISA in a reconstructed human epidermis mimicking atopic dermatitis. For each test, pretreatment with individual compounds or the multi-ingredient complex was performed prior to stimulation with specific agonists or a cytokine cocktail. Individual compounds demonstrated distinct inhibitory effects on the different activated itch receptors (e.g., PAR-2, TRPV1, MRGPRD, PAR-4). In the reconstructed human epidermis model, significant inhibitory effects on the release of TSLP, RANTES, and CCL2 were observed distinctly with individual ingredients. The multi-ingredient complex further enhanced these anti-inflammatory effects. The novel multi-ingredient complex effectively targets multiple itch pathways and reduces inflammatory mediator release, offering a promising multi-target approach to break the itch-scratch cycle and neuroinflammation in AD in the future.

P5#1156
TARGETING STAPHYLOCOCCUS AUREUS V8 PROTEASE AND VIRULENCE FACTORS WITH A NOVEL ACTIVE COMPLEX TO TACKLE MICROBE-INDUCED ITCH IN ATOPIC DERMATITIS

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Atopic dermatitis (AD) is characterized by an altered skin barrier, Th2 inflammation, microbial dysbiosis and neuroinflammation. S. aureus commonly colonizes AD patients' skin and contributes to AD pathogenesis through expression of various virulence factors. Among them, a V8 protease and agonist of receptor PAR-1, has emerged as a key driver of AD pathogenesis, contributing to skin barrier alteration and immune evasion. In addition, V8 has recently been demonstrated to also directly activate itch neurons via PAR-1. Thus, targeting S. aureus virulence factors and V8 protease could be a promising strategy to tackle itch in AD. To evaluate the efficacy of a new mix of active ingredients in modulating S. aureus virulence factors to inhibit microbe-induced itch. S. aureus (CC1 strain) was treated with a mix of active ingredients and quorum-sensing inhibitors as controls (savirin and salicylic

acid), and RNA was extracted at the mid-exponential phase of bacterial growth. Subsequently, cDNA was prepared, and various genes such as proteases/exoenzymes (splA, sspB, aur, V8), and genes involved in immunomodulation by regulating cytokine expression (spa), adhesion (clfa, fnbpA) and metabolic activity (isdA) were quantified using the quantitative reverse transcription polymerase chain reaction (qRT-PCR) method. The mix of active ingredients significantly reduced the mRNA gene expression levels of V8 protease (p=0.002), splA (p=0.021), fnbpA (p=0.026), clfa(p=0.069), spa (p=0.011), and isdA (p=0.045) compared to controls, without inhibiting the growth of S. aureus at tested concentrations. This study demonstrates the potential of this new mix of active ingredients to inhibit the expression of several S. aureus virulence-related genes, notably V8 protease, offering a promising approach to tackle microbiota-associated itch in AD.

P6. Systemic and New Therapies for AD

P6#1001
DIFFERENTIAL MODULATION OF SYSTEMIC INFLAMMATION BY DUPILUMAB ACROSS ATOPIC DERMATITIS PHENOTYPES: REAL-LIFE DATA FROM FLORENCE

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Systemic inflammation in atopic dermatitis (AD) can be monitored through hematologic indices such as the neutrophil-to-lymphocyte ratio (NLR) and platelet-to-lymphocyte ratio (PLR). While Dupilumab improves clinical symptoms, real-world data on systemic immunomodulation across phenotypes remain limited. To evaluate longitudinal changes in NLR and PLR in dupilumab-treated AD patients and explore differences across clinical phenotypes. We retrospectively analyzed 60 adult patients with moderate-to-severe AD treated at the Dermatology Unit of the University of Florence. NLR and PLR were collected at baseline, 16 weeks, and 26 weeks. Clinical phenotypes were classified according to standard criteria. Statistical analyses included the Friedman test and subgroup comparisons. Mean NLR decreased from 2.2 ± 0.7 at baseline to 1.8 ± 0.5 at 16 weeks and 1.4 ± 0.4 at 26 weeks ($p < 0.000001$). Mean PLR dropped from 132.2 ± 61.0 to 108.6 ± 40.5 and 83.6 ± 30.0, respectively ($p < 0.000001$). Both indices showed a progressive and statistically significant reduction, consistent with a dampening of systemic inflammation during treatment. In contrast, patients with a prurigo-like phenotype (n=10) exhibited minimal changes: mean NLR decreased only from 2.6 to 2.3, and PLR from 148.0 to 135.4 over 26 weeks (p=NS). These findings suggest that systemic inflammatory modulation by dupilumab may be less pronounced in prurigo-like AD, supporting the hypothesis of phenotype-dependent immunologic dynamics. Dupilumab significantly reduces systemic inflammatory markers in most AD patients, but those with a prurigo phenotype may show a less pronounced biological response. NLR and PLR may serve as accessible tools to monitor and stratify therapeutic outcomes in real-life practice.

P6#1003
REAL-LIFE EFFICACY OF DUPILUMAB ACROSS CLINICAL PHENOTYPES OF ATOPIC DERMATITIS: A 36-MONTH RETROSPECTIVE STUDY

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Atopic dermatitis (AD) is a clinically heterogeneous disease. Dupilumab has shown long-term efficacy, yet differences in treatment response across phenotypes and the role of comorbidities and biomarkers remain underexplored in real-life settings. To assess dupilumab efficacy across AD phenotypes and evaluate the impact of baseline comorbidities, IgE, and eosinophils in a large real-world cohort. We retrospectively analyzed 250 adults with moderate-to-severe AD treated with dupilumab at the University of Florence. Patients were classified into six clinical phenotypes. Clinical scores (EASI, DLQI, NRS pruritus/sleep) were collected at baseline, 4, 12, 24, and 36 months. Baseline IgE, eosinophils, and comorbidities were recorded. At baseline, mean EASI was 28.4, DLQI 14.2, NRS pruritus 8.5. Prurigo-like patients had the highest disease burden (EASI 39, NRS pruritus 13.5), while classical and portrait phenotypes showed moderate scores. At 12 months, EASI dropped to 3.7, DLQI improved by 85%, and 70% of patients reported NRS pruritus ≤2. Differences between phenotypes were significant at baseline (p=0.031), but no longer significant at 12 months (p=0.09), suggesting treatment homogenized clinical response. Notably, prurigo-like patients showed slower and less complete improvement, with higher residual EASI and DLQI scores at all follow-ups compared to other subtypes. Patients with comorbidities (77%) had significantly higher baseline EASI (p=0.002), but biomarker levels (IgE, eosinophils) did not correlate with clinical response. Dupilumab provides sustained improvement across AD phenotypes. While baseline severity varies by subtype and comorbidities, long-term outcomes are generally consistent. However, prurigo-like patients may show a slower and less complete response, highlighting the need for phenotype-aware management.

P6#1007
MINIMAL DISEASE ACTIVITY AS A NEW THERAPEUTIC TARGET IN ATOPIC DERMATITIS: A 5-YEAR REAL-LIFE EXPERIENCE WITH DUPILUMAB

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Atopic dermatitis (AD) is a chronic inflammatory skin disease with significant physical and psychosocial burden. Dupilumab, a monoclonal antibody targeting IL-4Rα, has proven effective for moderate-to-severe AD, but long-term real-world data remain limited. To evaluate the long-term effectiveness, safety, and achievement of MDA in patients with moderate-to-severe AD treated with dupilumab over a 5-year period. A retrospective single-center cohort study was conducted including patients aged ≥6 years treated with dupilumab from November 2018 to January 2025. Effectiveness was measured by Eczema Area and Severity Index (EASI), Pruritus-Numerical Rating Scale (P-NRS) and Sleep Loss-Numerical Rating Scale (S-NRS) scores, Dermatology Life Quality Index (DLQI). MDA was defined as EASI-90 combined with P-NRS ≤1. Safety and drug survival were also assessed. Dupilumab treatment resulted in significant and sustained reductions in EASI and symptom scores over 5 years. The proportion of patients achieving MDA increased from 22.0% at 16 weeks to 56.0% at 208 weeks and remained stable at 55.3% through 260 weeks. The safety profile was favourable, with low discontinuation rates, and conjunctivitis as the most common adverse event. Our long-term real-world data support the sustained effectiveness and safety of dupilumab in moderate-to-severe AD, with over 55% of patients achieving and maintaining MDA at 5 years. Male sex and childhood onset may reduce treatment success, warranting further study.

P6#1012

NOVEL HAEMATOPOIETIC PROSTAGLANDIN D2 SYNTHASE INHIBITOR, CLS122, ALLEVIATED CLINICALLY RELEVANT SYMPTOMS IN AN ATOPIC DERMATITIS-LIKE MOUSE MODEL

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Atopic dermatitis (AD) poses a significant patient burden from its chronic inflammatory nature and uncomfortable symptoms. Particularly in children, current treatments are limited by long-term side effects and avoidance due to an injectable route of administration; non-invasive, safer, and more effective therapies are needed. One possible novel target is the inhibition of haematopoietic prostaglandin D2 synthase (HPGDS) and its downstream product, prostaglandin D2 (PGD2), which play crucial roles in AD pathogenesis and skin inflammation. We explored the therapeutic effect of novel HPGDS inhibitor, CLS122, within inflammatory in vitro assays and the preclinical AD model, 2,4-dinitrochlorbenzene (DNCB) challenged mice. Potency of CLS122 was determined against clinical trial HPGDS inhibitor, TAS-205 (Taiho Pharmaceutical). Quantitative PCR evaluated proinflammatory gene expression in stimulated RAW 264.7 macrophages. Oral in vivo pharmacokinetic studies were completed. AD phenotype was elicited by DNCB challenge on the backs/ears of CD-1 female mice; CLS122 (PO: 30 mg/kg/day) was given over 14-days. CLS122 was 11-fold more potent than clinical comparator, TAS-205. After CLS122 pretreatment, macrophages showed reduced proinflammatory gene expression (TNF-α, iNOS, IL-1β, IL-6, and COX-2). CLS122 treated mice exhibited significant AD symptom improvement (clinical skin lesion score, scratching count, ear thickness and weight) to vehicle treated mice. Body weight was consistent, suggesting that CLS122 was well tolerated. CLS122 is a potent HPGDS inhibitor, showing anti-inflammatory effects in vitro and efficacy in DNCB challenged mice. Targeting HPGDS and PGD2 for novel AD treatment offers significant advantage by symptom alleviation and its non-invasive route of administration, making it suitable for paediatric populations.

P6#1027

DUPILUMAB AND UPADACITINIB DRUG SURVIVAL IN THE MANAGEMENT OF PATIENTS WITH MODERATE TO SEVERE ATOPIC DERMATITIS: REAL-TIME DATA FROM THE ROYAL MELBOURNE HOSPITAL BIOGRID REGISTRY

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Atopic dermatitis (AD) is a chronic inflammatory skin disorder significantly affecting quality of life and healthcare resources. Dupilumab and Upadacitinib, two biologics recently approved for AD treatment in Australia, offer promising alternatives to traditional systemic therapies. However, real-world data on their long- term effectiveness, particularly drug survival, remain scarce. This study aimed to compare the drug survival rates of Dupilumab and Upadacitinib in AD patients using data from the Biogrid registry. We also identify the primary reasons contributing to treatment discontinuation and investigate factors affecting drug survival. We included 211 adults with moderate to severe AD from the Royal Melbourne Hospital's electronic medical records. Drug survival rates were analyzed using Kaplan-Meier survival estimates, and reasons for discontinuation were examined. Dupilumab demonstrated a significantly higher treatment retention rate, with 82.4% of patients remaining on treatment at 52 weeks. In contrast, only 67.2% of patients remained on Upadacitinib at 52 weeks. Reasons for discontinuation differed between biologics; Dupilumab was more frequently associated with ocular side effects, whereas Upadacitinib had a higher rate of infectious side effects. Upadacitinib in both univariable and multivariable model demonstrated a higher risk of discontinuation compared to Dupilumab. Longer duration of disease, biologic naive patients, and history of atopic diseases were associated with longer drug survival. These findings indicate that Dupilumab may offer a longer-lasting treatment option with better overall retention in AD management compared to Upadacitinib. To our knowledge, this is the first Australian atopic dermatitis drug survival study on available advanced therapies.

P6#1044

SLEEP DISTURBANCE IN ATOPIC DERMATITIS: PRESCRIBING PATTERNS IN A UK POPULATION-BASED STUDY

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Sleep disturbance is common in young people with atopic dermatitis (AD). However, real-world treatment data are lacking. To examine treatment patterns in young people with both active AD and sleep disturbance in a large population-based cohort. Patients aged 2-<18 with active AD within the Clinical Practice Research Datalink (CPRD) 2003-2023. We compared prescribing between those with AD and sleep disturbance to those with AD but no sleep disturbance (matched on age, sex, region, deprivation and practice registration). Prescribing was analysed using Negative Binomial regression models for prescribing rates (adjusted Incidence rate ratio [IRR]), over the study window, and separate logistic regression for the odds of receiving each treatment (adjusted odds ratio [aOR]) within 1 year. Both models were adjusted for demographic and clinical covariates. 16,792 patients with active AD had recorded sleep disturbance, matched to 82,937 patients with active AD but no sleep disturbance. Relative prescribing rates were substantially higher with sleep disturbance; sedating antihistamines (aIRR 1.67, 95%CI 1.58, 1.77) 86.44 vs 50.05 prescriptions/100 person-years; non-sedating antihistamines (aIRR 1.40, 95%CI 1.34, 1.46) 150.16 vs 80.47 prescriptions/100 person-years; melatonin (aIRR 8.93, 95%CI 6.75, 11.98) 16.28 vs 3.67 prescriptions/100 person-years. Those with sleep disturbance were also 12 fold (1166%) more likely to have any prescription for melatonin within the first year (aOR 12.66, 95%CI 9.52, 17.01), 56% for sedating antihistamines (aOR 1.56, 95%CI 1.46, 1.67), and 37% non-sedating antihistamines (aOR 1.37, 95%CI 1.28, 1.46). Young people with AD and sleep disturbance are more likely to be prescribed sedating antihistamines, non-sedating antihistamines and melatonin.

P6#1045

VITAMIN D SUPPLEMENTATION FOR TREATING ATOPIC DERMATITIS IN CHILDREN: EFFICACY AND SAFETY

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Vitamin D (VD) deficiency is associated with atopic dermatitis (AD), particularly in children. Recent studies demonstrate that vitamin D supplementation could have a potential therapeutic effect on AD. To investigate the efficacy of VD supplementation in reducing AD severity and its safety profile in children. A randomized, open-label, parallel controlled clinical trial was performed enrolling AD children (Hanifin-Rajka criteria; serum VD <50 nmol/L). Participants were randomized into four VD supplementation groups for three months. Assessments occurred at baseline, 1 month, and 3 months. Primary outcomes: change in objective SCORAD and serum VD levels. Secondary outcomes: safety (liver/kidney function, Ca, Pi, PTH). 70 patients enrolled (Group sizes: 21, 16, 14, 19). Groups were comparable at baseline (age, gender, VD, SCORAD). All groups exhibited increased VD levels and decreased SCORAD scores over time. At 1 month, no significant differences existed between groups for VD levels or SCORAD reduction. At 3 months, the group receiving oral VD 2000 IU/day demonstrated significantly higher VD levels ($p<0.05$) and significantly greater SCORAD reduction ($p<0.05$) compared to the other three groups. No clinically significant adverse events or laboratory abnormalities occurred. VD supplementation was safe over 3 months in AD children. Significant improvement in AD severity correlated with achieving sufficient VD levels, requiring adequate duration and dosage. Oral supplementation with 2000 IU/day was the most effective regimen.

P6#1049

THE IMPACT OF DUPILUMAB ON ATOPIC DERMATITIS ADMISSIONS AND EMERGENCY DEPARTMENT PRESENTATIONS: A RETROSPECTIVE DATA ANALYSIS

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Atopic dermatitis (AD) is a chronic inflammatory condition that impacts quality of life and has a substantial burden on the healthcare system with infective and non-infective flares. Dupilumab is a highly effective and well tolerated biologic which blocks interleukins 4 and 13.However, there is limited data on cost-effectiveness of treatment We aim to determine whether there has been a reduction in the number of patients presenting to ED or being admitted with AD flares. This data can be used to support the effectiveness of dupilumab and add weight to the need to introduce biologic treatment early rather than wait for complications. The patients included in the study were those who had presented to ED at RMH or admitted for an AD flare between 1/6/2017 and 1/10/2024 and all patients on dupilumab under Dermatology at RMH. Each patient was given an identification number and followed by retrospective review of their electronic records. The data included patient demographics, nature of the flares, management, and the dates of biologic commencement, ED presentations and hospital admissions where applicable. These measures were compared before and after the introduction of dupilumab under PBS in March 2021. A substantial overall reduction in AD-related health events after March 2021; an approximate 60% reduction in hospital admissions, 70% reduction in the duration of admissions and number of ED presentations. Each of these measures was also reduced by about a third on average per patient. Marked decreases were seen across all measured categories, suggesting improved management and prevention of AD complications and hospital use after March 2021. The study was able to capture the contribution of dupilumab to an overall reduction in hospital use secondary to AD flares at RMH alone. It would be of interest to expand the study across other hospitals and regions.

P6#1054

SYSTEMIC TREATMENTS OUTCOMES FOR MODERATE-TO-SEVERE ATOPIC DERMATITIS IN CHILDREN AGED LESS THAN 12 YEARS: PEDISTAD 5-YEAR RESULTS

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Real-world studies offer valuable insights into long-term effectiveness and safety of systemic therapies in pediatric patients with AD. The objective of this study is to report the long-term effects of systemic therapies on clinician-reported outcomes in children aged <12 y with moderate-to-severe AD enrolled in the PEDISTAD study. PEDISTAD (NCT03687359) is an ongoing, international, observational 10y registry for patients with moderate-to-severe AD aged <12 y at enrolment, who were receiving/were candidates for systemic treatment. Endpoints included mean EASI total score and the percentage affected BSA for patients receiving dupilumab, methotrexate (MTX), and cyclosporine (CsA). The number of AEs and discontinuations was also evaluated. Data are presented as observed. In this 5 y (2019 – 2024) interim analysis, 360, 152 and 151 patients received dupilumab, MTX, and CsA, respectively. At first and last observation, the mean EASI (standard error [SE]) for dupilumab, MTX and CsA were 17.7 (0.8) and 4.4 (0.3); 16.8 (1.1) and 7.5 (0.8); 18.8 (1.0) and 14.3 (1.2), respectively. Mean percentage BSA (SE) at first and last observation for dupilumab, MTX, and CsA were 35.0 (1.4) and 12.1 (0.9); 34.0 (1.8) and 17.3 (1.8); 39.6 (1.9) and 31.8 (2.4), respectively. The percentage of patients reporting AEs and serious AEs treated with dupilumab, MTX, and CsA were 28.8% and 1.4%; 28.6% and 0.6%; 31.4% and 2.0%, respectively. For dupilumab, MTX, and CsA, the cumulative discontinuation rates were 31.6%, 71.1%, and 88.7%, respectively; and the mean (SD) treatment exposure was 21.3 (17.4), 20.2 (16.9) and 13.6 (13.2) mo, respectively. Safety was consistent with the known dupilumab safety profile. Patients aged <12 y treated with dupilumab had a numerically greater improvement in clinician-reported AD signs and lower discontinuation rates compared with MTX and CsA.

P6#1066

REAL-WORLD USE OF SYSTEMIC TREATMENTS FOR SEVERE ATOPIC DERMATITIS IN FRANCE BETWEEN 2018 AND 2023 , USING THE FRENCH CLAIMS DATABASE

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The treatment of severe atopic dermatitis (AD) has evolved since 2017 with the introduction of the first biologic, dupilumab, followed by tralokinumab. Other targeted treatments, Janus kinase inhibitors (JAKi), also received marketing authorization in 2021 and 2022; in 2022 EMA issued recommendations on their use due to safety concerns. The aim of this study is to describe the prescribing patterns of biologics and JAKi according to approval periods and EMA recommendations and understand variables associated with their prescription, at the French national level. Using national claims data (2018–2024), we included patients with severe AD initiating systemic treatment. Treatments patterns were visualized using Sankey diagrams at 6-month intervals over 3 years and 90-day intervals over 1 year. We analyzed treatment sequences and performed logistic regression to identify factors influencing therapeutic choices. A total of 25,490 patients were included: 23,524 (92%) initiated biologic therapy, 1,966 (8%) who initiated a JAK inhibitor. The median age was 43 years (Q1-Q3: 28-63), with 49% women and 22% having a history of asthma. In the year prior to initiation, 38% of patients on biologics and 17% of patients on JAKi had at least one cardiovascular risk factor, a history of cancer, or were over 65 years of age (PRAC+ profile). Dupilumab remained the most commonly prescribed treatment, accounting for 93% of prescriptions before JAKi reimbursement and 85% after the EMA restrictions. Among the 17,334 patients followed for one year, 71% remained on dupilumab for the entire year, while 6% discontinued their systemic treatment after 90 days without resuming it. Asthma and cardiovascular history are associated with its prescription. This nationwide study highlights the widespread and sustained use of dupilumab among systemic treatments for AD from 2018 to 2024.

P6#1066
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P6#1073
SERUM EXOSOMAL MIRNAS AS PREDICTIVE BIOMARKERS OF LONG-TERM RESPONSE PATTERNS TO DUPILUMAB IN ATOPIC DERMATITIS

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Dupilumab is an effective biologic therapy for severe atopic dermatitis(AD). However, some patients show limited long-term control. A subset initially improves but later develops systemic flare-ups requiring additional systemic therapy. Exosomes are extracellular vesicles mediating paracrine or systemic cell-to-cell communication. Serum-derived exosomal miRNAs reflect immune and inflammatory status and may serve as biomarkers for treatment response. While predictors of dupilumab response have been studied, serum exosome-based biomarker research remains limited. To identify serum-derived exosomal miRNAs that significantly differ between durable and non-durable responders. Serum-derived exosomes were collected prior to dupilumab initiation from six patients with severe AD (baseline EASI ≥23). Patients were classified as: (1) Durable responders: achieved EASI90 within 16 weeks and maintained stable disease for over one year. (2) Non-durable responders: achieved EASI75 before week 16, but had ≥2 systemic flare-ups within one year, requiring additional systemic therapy. The miRNA sequencing and functional enrichment (GO, KEGG) were performed. Durable responders showed elevated miRNAs targeting Cajal body function and telomere maintenance, implying decreased nuclear stability and regenerative capacity in non-durable responders. Notch signaling and β-catenin deactivation pathways were also reduced, suggesting impaired epidermal differentiation and immune control. Non-durable responders exhibited enrichment in stress-related pathways including EMT, starvation response, RUNX2, and FoxO signaling. Serum-derived exosomal miRNAs may serve as possible predictive biomarkers that distinguish long-term treatment outcomes between durable and non-durable responders in AD.

P6#1078
REAL-WORLD EFFECTIVENESS OF UPADACITINIB IN ATOPIC DERMATITIS BASED ON PRIOR EXPOSURE TO BIOLOGIC THERAPY: 6-MONTH INTERIM ANALYSIS OF THE MULTICOUNTRY AD-VISE STUDY

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SAULITE[9], Fatima Saleh ALBREIKI[10], José-Juan PEREYRA-RODRIGUEZ[11,12], Michael C. LANE[13], Richard TA[13], Yolanda ARMENDARIZ[13], David PREFONTAINE[13], Melinda Jennifer GOODERHAM[14]

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Data on real-world outcomes of upadacitinib (UPA) are increasing with its use in moderate to severe atopic dermatitis (AD). We aimed to assess UPA effectiveness in AD in clinical practice based on prior biologic therapy exposure. This interim analysis (data cutoff: January 16, 2025) from the ongoing, observational, multicountry AD-VISE study included adolescent and adult patients (pts) with AD who were prescribed UPA and were enrolled ≥6 months (mo) before the data cutoff or had discontinued the study. Pts were stratified as bionaïve (BN) or bioexperienced (BE) based on prior biologic therapy exposure. Key outcomes assessed were: validated Investigator Global Assessment for AD (vIGA-AD) 0/1 (primary), Eczema Area and Severity Index (EASI), Worst Pruritus Numerical Rating Scale (WP-NRS), Dermatology Life Quality Index (DLQI), Patient Oriented Eczema Measurement (POEM), and AD Control Tool (ADCT). Data were analyzed using non-responder imputation with multiple imputation. The safety of UPA has been previously reported in clinical trial patients with AD (Guttman-Yassky E, et al. J Allergy Clin Immunol. 2023;15: 172-181). Most pts achieved vIGA-AD 0/1 at mo 2 (BN/BE: 53.3/63.8%), with rates rising at mo 4 and maintained at mo 6 (BN/BE: 64.5/66.3%). EASI results trended similarly between mo 2 and 6, including EASI 90 (BN: 49.2%, 62.7%; BE: 56.3%, 60.4%) and EASI≤3 (BN: 58.9%, 71.6%; BE: 67.5%, 72.1%). Rates of minimal or no pruritus (WP-NRS 0/1) and minimal disease activity (EASI≤3+WP-NRS 0/1) also remained consistent, with BN/BE mo 6 rates of 43.9/38.5% (WP-NRS 0/1) and 38.2/32.6% (MDA). Clinically meaningful improvements were also observed in ADCT, POEM, and DLQI. Regardless of prior biologic therapy exposure, UPA improved itch, disease control, quality of life, and reduced disease severity, demonstrating consistent real-world effectiveness.

P6#1079
REAL-WORLD EXPERIENCE WITH DUAL DUPILUMAB AND OMALIZUMAB THERAPY: AN EIGHT-PATIENT CASE SERIES

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Dual biologic therapy is increasingly used in the management of atopic and inflammatory conditions. In Australia, dupilumab is approved for atopic dermatitis (AD), asthma, and allergic rhinitis with nasal polyps, while omalizumab is indicated for chronic spontaneous urticaria (CSU) and asthma. Given their overlapping indications and the high rate of multimorbidity among atopic diseases, combined use is likely to rise in the future. However, current safety and efficacy data remains limited to a small number of case series and reports. To report on a single centre experience with the safety of dual dupilumab and omalizumab use. A retrospective case series was performed by searching the hospital electronic medical records for patients prescribed both dupilumab and omalizumab. A total of 8 patients were identified. Dupilumab was prescribed for AD in 6 patients and asthma in 2 patients. Omalizumab was prescribed for CSU in 6 patients and asthma in 2 patients. The average duration of dual therapy was 23.3 months (range 10.9-51.5), with six of the eight patients currently continuing dual therapy. Dual therapy was well tolerated in the majority of patients. Two separate adverse events were recorded; mild dry eyes after dupilumab commencement (prior to omalizumab commencement) and ocular surface disease leading to one patient self ceasing dupilumab. All patients maintained clinical response following the addition of a second biologic. Two patients discontinued omalizumab due to secondary loss of efficacy which developed 12 and 24 months into therapy. Findings from this series support the safety of dual omalizumab and dupilumab therapy. No adverse events inconsistent with the known safety profile of dupilumab occurred.

P6#1082
EFFICACY AND SAFETY OF AUTOLOGOUS ADIPOSE-DERIVED STEM CELLS IN SUBJECTS WITH MODERATE TO SEVERE ATOPIC DERMATITIS: A MULTICENTER, RANDOMIZED, SINGLE-BLIND, PLACEBO-CONTROLLED, PHASE 2 TRIAL

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Atopic dermatitis (AD) is a chronic skin condition affecting patients' well-being, but conventional treatments have limitations. Mesenchymal stem cells (MSCs) present a promising option for AD therapy, though large-scale clinical studies are scarce. This study aimed to assess the efficacy and safety of adipose tissue-derived MSC (AdMSC) in moderate to severe AD refractory to conventional treatments. This multicenter, randomized, single-blind, placebo-controlled, phase 2 trial included 114 participants. Participants received two intravenous injections of AdMSCs or placebo at 4-week intervals. Clinical assessments, comprising Eczema Area and Severity Index (EASI), Scoring Atopic Dermatitis (SCORAD), and Investigator's Global Assessment (IGA), were performed every 4 weeks for 16 weeks total. Biomarker analyses were conducted using ELISA. Statistically significant differences between the treatment and placebo groups EASI total score emerged at 8, 12, and 16 weeks ($P = 0.017, 0.015, < 0.001$). At week 16, 23.7% of participants in the treatment group achieved 75% or greater reduction in EASI total score (EASI-75), compared to 7.2% in the placebo group, with a statistically

significant difference (P = 0.016). In addition, SCORAD, disease severity and IGA score were also improved in the treatment group compared to the placebo group. AdMSC therapy improved moderate to severe AD, offering a promising treatment option with potential applications in chronic inflammatory diseases. Further investigation, including double-blind phase 3 trials, is needed to confirm these findings and explore additional biomarkers.

P6#1084
LEBRIKIZUMAB FOR THE TREATMENT OF SEVERE ATOPIC DERMATITIS: REAL- WORLD DATA FROM THE CZECH REPUBLIC BIOREP REGISTRY

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Atopic dermatitis (AD) is a chronic inflammatory skin disease with significant impact on quality of life. Patients with severe AD should be treated with biological drugs (dupilumab, tralokinumab, lebrikizumab) or Janus kinase inhibitors (JAKi), such as abrocitinib, baricitinib, and upadacitinib. Lebrikizumab, an IL-13–targeting monoclonal antibody, offers a novel treatment option. To assess the real-world effectiveness and safety of lebrikizumab in patients with severe AD. This retrospective cohort study used data from the Czech national registry BIOREP. At a time of analyses, a total of 2,174 patients with severe atopic dermatitis were included in the registry. As of July 2025, 344 patients treated with lebrikizumab were analyzed. EASI, itch severity, and sleep disturbance were recorded at baseline, and at weeks 16 and 24. EASI50/75/90/100 responses were achieved in 92.3%/69.6%/39.7%/9.3% at week 16 and 97.1%/83.9%/46.7%/9.5% at week 24. Mean itch score dropped from 7.1 to 2.9 and 2.6; sleep score improved from 6.1 to 2.0 and 1.8 at weeks 16 and 24, respectively. Treatment was discontinued in 7.8% of series, in 3.5% due to loss of effectiveness, followed by adverse events (AEs) in 2.6%. AEs occurred in 7.8% of patients; conjunctivitis (6.4%) was the most common. No serious AEs were reported. In real-world settings, lebrikizumab showed high effectiveness and a favorable safety profile. EASI75 and EASI90 responses at week 16 (69.6% and 39.7%) exceeded those reported in phase 3 trials (ADvocate1: 58.8% and 38.3%; ADvocate2: 52.1% and 30.7%). Our results also surpassed a recent Japanese real-world study (EASI 75 and EASI90 57.1% and 27.3%). These findings support lebrikizumab as an effective treatment for severe AD.

P6#1086
INCIDENCE OF FLARES DURING MAINTENANCE TREATMENT WITH DUPILUMAB MONOTHERAPY FOR 1 YEAR IS ASSOCIATED WITH HIGHER BASELINE CCL17/TARC

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Reducing the incidence of flares (worsening of disease requiring escalation of treatment) in patients with atopic dermatitis (AD) is an important treatment goal for patients and physicians. Serum CCL17/TARC is a type 2 biomarker associated with AD severity. We examined the association between serum CCL17 levels and flares in patients with AD who received dupilumab monotherapy for 1 year and those who received dupilumab q2w for 16 weeks then placebo for 36 weeks. In this post hoc analysis, adults with moderate-to-severe AD who received dupilumab 300 mg q2w in the LIBERTY AD SOLO 1/2 trials (NCT02277743/NCT02277769) and achieved an optimal response of IGA 0/1 and/or EASI-75 at Week 16, without occurrence of flare (n = 199/428), were rerandomized in SOLO-CONTINUE (NCT02395133) for an additional 36 weeks to dupilumab 300 mg monotherapy q2w (n = 80), q4w (n = 41), or q8w (n = 39), or placebo (n = 39). This analysis reports median serum CCL17 levels prior to initiating dupilumab treatment in SOLO 1/2 and after 16 weeks of dupilumab q2w. Data are presented as observed for patients who experienced ≥1 flare or no flares during SOLO-CONTINUE. Median CCL17 concentrations prior to dupilumab treatment were higher in patients who subsequently experienced ≥1 flare during SOLO-CONTINUE (dupilumab q2w, 2285; q4w, 3010; q8w, 1839; placebo, 2909 pg/mL) vs patients without any flares during SOLO-CONTINUE (dupilumab q2w, 1074; q4w, 834; q8w, 1237; and placebo, 910 pg/mL). After 16 weeks of dupilumab q2w, median CCL17 was reduced from Week 0 to normal levels (<400 pg/mL). In this analysis, baseline serum CCL17 level was a robust predictive biomarker of flares in patients with AD.

P6#1090
EFFICACY AND SAFETY OF ABROCITINIB IN ASIAN ADOLESCENTS WITH ATOPIC DERMATITIS: A REVIEW OF REAL-WORLD DATA IN SINGAPORE

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Atopic dermatitis (AD) commonly occurs in children. Oral Janus kinase 1 inhibitors are increasingly used to optimise AD control. However, real world data in the Asian paediatric population is limited. We assessed the efficacy and safety of abrocitinib for adolescents in Singapore with AD. Electronic medical records of patients with AD on abrocitinib for at least 1 month in a tertiary paediatric centre were retrieved. Twenty patients were included, of which 12 (60%) and 9 (45%) were ongoing treatment for at least 3 and 6 months respectively. Most were male (70%) and Chinese (65%). The majority (55%) had prior second line treatment such as dupilumab (73%), phototherapy (45%) and other immunosuppressants (27%). The most common reasons for starting abrocitinib were concerns about side effects of other second line agents (35%) and poor response to previous therapies (30%). Patients previously on dupilumab cited fear of injections, complications and cost as reasons for change. Mean Eczema Area Severity Index (EASI) improved from 20.54 at baseline to 10.83 and 9.49 at 1 and 6 months respectively, with 33% achieving EASI75 at 6 months and 35% and 20% reporting improvements in itch and sleep respectively. Five patients (25%) developed mild side effects (upper respiratory tract infection, acne, headache, nausea). Three patients (15%) developed raised low density lipoprotein (LDL) (mean 4.6mmol/L, [4.2-5.0], desirable level: ≤3.3mmol/L). Two patients (10%) discontinued abrocitinib due to side effects or suboptimal disease control. There were no serious adverse events. Abrocitinib is an effective and safe oral medication for Asian adolescents with AD, including non-responders to other second line agents.

P6#1093

IGE MODULATION AND DISEASE SEVERITY IN ATOPIC DERMATITIS TREATED WITH METHOTREXATE

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Atopic dermatitis (AD) is a chronic inflammatory skin disorder characterized by Th2-skewed responses. Methotrexate (MTX) is a cost-effective systemic therapy for moderate-to-severe AD, yet there is limited quantitative data regarding its impact on immunologic biomarkers. This study aimed to evaluate changes in serum immunoglobulin E (IgE) and allergen-specific IgE following MTX therapy and their association with clinical response. A retrospective analysis was conducted on 28 patients with moderate-to-severe AD treated with oral MTX. Serum levels of total IgE, Dermatophagoides farinae (D1), Dermatophagoides pteronyssinus (D2), and Malassezia (M227) were measured before and after MTX treatment. Clinical severity was assessed using the Eczema Area and Severity Index (EASI). Paired t-tests or Wilcoxon signed-rank tests were used for statistical analyses. Following MTX therapy, significant reductions were observed in total IgE and D1-specific IgE levels ($p = 0.0107$ and $p = 0.0075$, respectively), reflecting the immunosuppressive effects of MTX. D2 and M227-specific IgE levels also decreased, but the reductions were not statistically significance ($p = 0.3235$ and $p = 0.2072$). EASI scores improved significantly following treatment. However, no significant linear correlation was found between changes in IgE biomarkers and EASI score reduction. MTX therapy in AD patients led to significant decreases in total IgE and D1-specific IgE, highlighting its immunomodulatory effect. While clinical improvement was evident, the absence of a direct correlation between biomarker changes and EASI reduction suggests a complex therapeutic mechanism. These findings support the potential utility of IgE-based biomarkers in monitoring treatment response, warranting further prospective studies to validate their role in precision management of AD.

P6#1095

METHOTREXATE USE IN PEDIATRIC ATOPIC DERMATITIS: FINAL RESULTS FROM THE STEADY STUDY (SYSTEMIC TREATMENT EFFICACY IN ATOPIC DERMATITIS IN YOUNG CHILDREN AND ADOLESCENTS)

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Atopic dermatitis (AD) is a chronic and recurrent skin disorder. Despite the availability of biologic therapies, many countries still lack access to these treatments, making methotrexate a commonly used systemic option for managing moderate-to-severe AD in pediatric patients. There is therefore a clear and compelling unmet need to evaluate the efficacy and safety of systemic treatments for moderate-to-severe AD in pediatric age groups. This study was conducted at the Department of Dermatology, Medical University of Lodz, as part of the STEADY project. The aim of this trial was to assess the efficacy, safety, and tolerability of methotrexate in children and adolescents (2–18 years old) with moderate-to-severe AD. Children over 2 years of age and adolescents with moderate-to-severe AD, defined by EASI>16, BSA>10%, and SCORAD>25, who were eligible for systemic therapy, were enrolled in the study. Methotrexate was administered at a dose of 0.3 mg/kg once weekly. The primary evaluation point was after 16 weeks of treatment. 65 patients (mean age 8 years; 30 girls, 35 boys) were recruited, of whom 59 completed the 16-week observation period. Statistical analysis showed significant improvement post-treatment: EASI score decreased from 23.23 to 4.97; SCORAD score decreased from 62.36 to 27.10; DLQI improved from 14.68 to 6.83. Additionally, 38.98% of patients achieved EASI 90 response. The most common adverse events reported during follow-up visits were respiratory tract infections (52%). Preliminary results from this clinical trial show good clinical efficacy and a favorable safety profile for methotrexate in pediatric patients with moderate-to-severe AD. We hope these findings will contribute to the development of treatment algorithms in the future. The study is sponsored by Medical Research Agency (ABM) grant No 519/5-064-01/519-01-002-08.

P6#1096

REAL-WORLD DUPILUMAB USE IN CHINESE INFANTS, CHILDREN AND ADOLESCENTS WITH ATOPIC DERMATITIS: PATIENT- AND CAREGIVER-REPORTED OUTCOMES IN THE ADOPED-STAD STUDY

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Patient- and caregiver-reported outcomes (PROs and CROs) are important complements to clinician-based disease measures in paediatric patients with atopic dermatitis (AD) and their caregivers. Dupilumab is approved for moderate-to-severe AD in patients aged ≥6 months (mo) in China. To evaluate real-world PROs and CROs with dupilumab in Chinese paediatric patients with AD. ADOPED-STAD is an ongoing prospective study of dupilumab in patients with AD aged ≥6 mo to <18 years (y); this interim analysis included patients enrolled from 28 Sep 2022 to 31 Aug 2024 (data cut-off). PROs were pruritus- and sleep disturbance-Numerical Rating Scale (p- and sd-NRS) scores, Infants' Dermatitis Quality of Life Index (IDQOL; age ≥6 mo to <4 y), Children's Dermatology Life Quality Index (CDLQI; age ≥4 to <16 y) or Dermatology Life Quality Index (DLQI; age ≥16 y) scores. CROs were Caregiver Global Assessment of Disease (CGAD) and Dermatitis Family Impact (DFI) scores. At data cut-off, 563 patients were enrolled (75 [13.3%] aged ≥6 mo to <6 y, 366 [65.0%] ≥6 to <12 y and 122 [21.7%] ≥12 to <18 y). Consistent decreases in p- and sd-NRS were seen in all patients, with respective mean ± SD scores of 7.0 ± 2.1 and 5.5 ± 2.7 at baseline (BL) and 2.4 ± 2.2 and 1.7 ± 1.9 at Week 24 (W24). Quality of life scores also improved in all age groups, with respective mean ± SD IDQOL scores at BL, W4 and W24 of 13.1 ± 4.4, 7.8

± 4.1 and 6.4 ± 5.0; similar improvements were seen in CDLQI and DLQI scores. For CROs, mean ± SD CGAD and DFI scores showed similar improvements in all age groups, from 2.7 ± 0.7 and 13.9 ± 6.3 at BL to 1.6 ± 0.7 and 9.1 ± 5.7 at W4 and 1.2 ± 0.7 and 6.6 ± 5.4 at W24. PROs and CROs showed early and sustained improvements through W24 with dupilumab treatment in Chinese paediatric patients with AD across all age groups.

P6#1098
MODIFYING DUPILUMAB DOSING FREQUENCY IN PATIENTS WITH PSORIASIFORM DERMATITIS: A CASE-BASED APPROACH

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Psoriasiform dermatitis (PD) is a paradoxical reaction observed in some atopic dermatitis (AD) patients treated with dupilumab. This phenomenon, characterized by clinical and histologic features of psoriasis during Th2 pathway blockade, presents therapeutic challenges in long-term biologic use. To analyze clinical outcomes of patients who developed psoriasiform features during dupilumab treatment and to evaluate individualized management strategies, particularly dose interval modification. We retrospectively reviewed patients with moderate-to-severe AD who developed mild to moderate psoriasiform dermatitis while receiving dupilumab over a 2-year period. Clinical characteristics, dosing intervals, comorbidities, and treatment outcomes were recorded. Seven male patients were identified who developed de novo mild to moderate psoriasiform dermatitis while receiving dupilumab for AD. The mean age was 61 years (range: 28–87), and the mean duration of AD was 8.28 years. Among them, two patients also presented with dupilumab-induced facial redness. Psoriasiform dermatitis developed after a mean of 74 weeks (range: 10–85 weeks) of dupilumab therapy. All subjects achieved EASI 75–90 responses to dupilumab, and their psoriasiform eruptions were well controlled by adjusting the dosing interval to every 3 to 4 weeks in combination with topical treatments. The topical agents varied by site and included either topical calcineurin inhibitors or a combination of topical corticosteroids and calcipotriol. Psoriasiform dermatitis during dupilumab treatment represents a dynamic immunophenotypic shift rather than simple treatment failure, and was observed in male patients in our cohort. Extending the dupilumab dosing interval and using adjunctive topical therapies provided effective management tailored to individual disease activity.

P6#1101
POTENTIAL OF AP COLLAGEN PEPTIDES (APCPS) TO ALLEVIATE INFLAMMATORY RESPONSES IN OXAZOLONE-INDUCED ATOPIC DERMATITIS (AD)-LIKE MICE

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Collagen tripeptide (CTP), a dietary supplement rich in amino acids, offers the advantage of minimal antigenicity and a low potential for allergic reactions. Notably, AP collagen peptide (APCP), containing more than 15% CTP, has demonstrated benefits in enhancing skin moisture, improving barrier function, and reducing inflammation in various studies. However, its effects on atopic dermatitis (AD) have not yet been investigated. This study aimed to evaluate the anti-inflammatory and skin barrier-restorative effects of orally administered APCP in a murine model of oxazolone(OXZ)-induced AD. The effects of oral APCP administration on AD were assessed using transepidermal water loss (TEWL), skin hydration levels, histological evaluation, and RT-qPCR analysis in an OXZ-induced AD-like hairless mouse model. Oral administration of APCP significantly increased skin hydration levels in OXZ-induced AD-like mice. Additionally, APCP reduced epidermal thickness, mast cell infiltration, and the mRNA levels of inflammatory cytokines, including IFN-γ, IL-4, IL-13, and IL-31, were reduced following APCP administration, though the decreases were not statistically significant. APCP shows potential as an adjunctive oral treatment for enhancing skin hydration in AD, warranting further investigation to confirm its therapeutic benefits.

P6#1102
REAL-WORLD USE AND EFFECTIVENESS OF UPADACITINIB IN AUSTRALIANS AGED ≥12 YEARS WITH ATOPIC DERMATITIS: 6-MONTH INTERIM ANALYSIS OF THE AD-VISE STUDY

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Australian real-world data is scarce for upadacitinib (UPA) treatment in patients with moderate to severe atopic dermatitis (AD). Evaluate effectiveness of UPA for AD in Australian real-world clinical practice and describe the Australian AD-VISE population. AD-VISE is an ongoing observational, multi-country study of patients (pts) ≥12 years receiving UPA for AD. This interim analysis (data cutoff: 16Jan2025), includes effectiveness results for 45 Australian pts enrolled for ≥6 months. Outcome measures included: validated Investigator Global Assessment for AD (vIGA-AD) 0/1 (primary), Eczema Area and Severity Index (EASI), Worst Pruritus Numerical Rating Scale (WP-NRS), Dermatology Life Quality Index (DLQI), Patient Oriented Eczema Measurement (POEM), and Patient Global Impression of Treatment (PGIT). Data were analysed using non-responder imputation with multiple imputation. At baseline 93.6% were adults, 90.0% had vIGA-AD Moderate (3) or Severe (4) and 76.6% initiated UPA at 15 mg. Rates of vIGA-AD 0/1 increased from 2.5% at baseline to 35.9%, 48.4% and 61.2%, at months 2, 4 (primary endpoint) and 6, respectively. By month 6, most pts had achieved either a 75% or 90% improvement in EASI score (EASI 75: 80.6%; EASI 90: 60.2%). Simultaneous achievement of EASI score ≤3 and WP-NRS 0 or 1, which indicates minimal disease activity, was attained by 28.2% of pts at month 6. During the study clinically meaningful improvements were also seen across all of the assessed pt-reported outcomes. In Australian pts with AD, UPA improved disease severity, itch control, and quality of life up to 6 months in real-world clinical practice, in line with results from international UPA trials.

P6#1114
REAL-WORLD ASSESSMENT OF UPADACITINIB FOR ATOPIC DERMATITIS: EFFECTIVENESS AND SAFETY FROM A SINGLE-CENTER RETROSPECTIVE ANALYSIS

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Atopic dermatitis (AD) is a chronic inflammatory skin condition with complex pathogenesis, requiring individualized treatment. Recent advances in immunomodulatory therapies have expanded options for managing moderate-to-severe AD. Since November 1, 2022, upadacitinib has been available for patients aged 12 and older through the B.124 drug program, offering a promising targeted treatment. This study aimed to evaluate the effectiveness and safety of upadacitinib in AD patients enrolled in the B.124 drug program. A retrospective review of medical records from 31 patients (21 adults, 10 pediatric) with clinically diagnosed AD treated with upadacitinib was conducted. Treatment outcomes were assessed using EASI, DLQI, and BSA scores at baseline, after four months, and every three months. Safety was monitored by lab test abnormalities and adverse events. Of 31 patients, 17 (54.84%) were female and 14 (45.16%) male, with a mean age of 27.9 years. The baseline mean SCORAD score was 62.39. At baseline, EASI, DLQI, and BSA were 23.28, 15.57, and 26%, respectively and they improved to 4.25, 3.07, and 5% at week 16, and 2.1, 1.32, and 3% at week 52. Treatment failed in 9 (29.03%), and 3 discontinued due to adverse effects. Common lab abnormalities included elevated creatine kinase (35.48%) and dyslipidemia (29.03%). Skin side effects include acne (22.58%) and recurrent herpes simplex (22.58%). This single-center study shows that upadacitinib is effective and has an acceptable safety profile for moderate-to-severe AD in both adults and children. Significant improvements in disease severity and quality of life were noted. However, longer-term follow-up is necessary to assess its long-term safety and efficacy.

P6#1118
IS AN OPHTHALMOLOGY REVIEW PRIOR TO STARTING DUPILUMAB INDICATED IN PATIENTS WITH ATOPIC DERMATITIS?

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Dupilumab associated ocular surface disease (DASOD) is the most common adverse effect of dupilumab. Atopic dermatitis patients have an increased incidence of developing DAOSD which has important implications for quality of life. Early identification and treatment of DAOSD limits progression and severity. To evaluate whether ophthalmology screening prior to initiating Dupilumab in patients with atopic dermatitis is associated with a reduced incidence of DAOSD. A retrospective cohort study was conducted at a single-centre academic dermatology clinic involving Atopic Dermatitis who had been prescribed dupilumab. These patients were stratified into two groups based on whether they had undergone ophthalmology screening prior to starting dupilumab treatment. The development of DAOSD was the primary outcome. Of the 89 patients eligible for inclusion, 17.9% developed DAOSD. The cohort was stratified depending on prior ophthalmology screening;18.9% of screened patients developed DAOSD compared to 13.3% of unscreened patients. While the DAOSD incidence was higher in the screened cohort, the difference was not found to be statistically significant (χ^2= 0.28, p = 0.598). Three patients were advised to not start dupilumab treatment based on their Ophthalmology screening assessment. While screening did not significantly reduce the incidence of DAOSD within this cohort, evidence highlights the value of early DAOSD detection and treatment. Further research needs to be done to validate the benefits of incorporating ophthalmologic assessment into routine care for atopic dermatitis patients prior to dupilumab initiation.

P6#1120
THERAPEUTIC POTENTIAL OF ASARININ IN AN ATOPIC DERMATITIS MOUSE MODEL: SUPPRESSION OF INFLAMMATORY RESPONSES AND SKIN LESIONS

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Atopic dermatitis (AD) is a chronic inflammatory skin disorder characterized by eczematous lesions, itching, and skin barrier dysfunction mainly driven by type 2 immune responses. Current treatments have limitations that highlight the need for safer and more effective therapies. Asarinin, a lignan from Asarum sieboldii, has anti-inflammatory potential and may be a candidate for the treatment of inflammatory skin diseases. This study aimed to evaluate the therapeutic potential of asarinin by examining its effects on the expression of AD-related factors in an AD mouse model. An AD mouse model was established by repeated DNCB application on the dorsal skin of 6-week-old male BALB/c mice. Asarinin was topically applied after the DNCB treatment. Skin tissues were collected for histological staining and qRT-PCR analysis of AD-related factors. Topical application of 3 mM asarinin significantly reduced ear thickness ($p < 0.01$) and skin severity scores ($p < 0.001$) compared to the DNCB-only group. H&E and toluidine blue staining showed that treatment with 3 mM asarinin markedly decreased the epidermal thickness and mast cell infiltration, respectively ($p < 0.001$). Furthermore, qRT-PCR demonstrated a significant downregulation of key inflammatory cytokines, including TSLP, IL-4, IL-33, IL-6, and IL-1β, following asarinin treatment ($p < 0.001$). These findings suggest that asarinin is a promising candidate for the treatment of AD, potentially alleviating symptoms by suppressing Th2 cytokines and inflammatory mediators.

P6#1121
DUPILUMAB TREATMENT ACROSS DOSE REGIMENS MAINTAINS IMPROVEMENT IN ATOPIC DERMATITIS SIGNS AND SYMPTOMS AND QUALITY OF LIFE FOR 100 WEEKS

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Sustained reduction in disease severity and symptom frequency and improvement in QoL are important goals of atopic dermatitis

(AD) management. We report maintenance of improvement in AD signs and symptoms and QoL in patients who achieved an optimal response to 16 weeks of dupilumab q2w. In this post hoc analysis, adults with moderate-to-severe AD who received dupilumab 300 mg q2w in LIBERTY AD SOLO 1/2 (NCT02277743/NCT02277769) and achieved IGA ≤1 and/or EASI-75 at Wk 16 (optimal response), were rerandomized 2:1:1:1 in SOLO-CONTINUE (NCT02395133) for 36 weeks (Wk 52) to dupilumab q2w/q4w/q8w or placebo, followed by 48 weeks (Wk 100) of dupilumab qw (open-label extension; NCT01949311). Percentages of patients with EASI score ≤3 (clear/almost clear skin), POEM score ≤1 for itch or sleep disturbance (occurred 0–2 days in the past week), or DLQI score ≤5 (minimal/no QoL impact) are presented as observed. At Wk 16 (n = 179), most patients had EASI ≤3 (70%), POEM sleep ≤1 (94%), and DLQI ≤5 (79%). This response was maintained across dupilumab doses (q2w/q4w/q8w) to Wk 52 (n = 177–178), compared with patients switching to placebo, for EASI ≤3 (68%/64%/62%; placebo: 28%), POEM sleep ≤1 (90%/86%/85%; placebo: 64%), and DLQI ≤5 (76%/81%/71%; placebo: 44%). Half of patients (49%) had POEM itch ≤1 at Wk 16, which was maintained with q2w (53%) and q4w (53%) to Wk 52. Only 1/3 or 1/5 of patients receiving q8w (35%) or placebo (19%), respectively, had POEM itch ≤1 at Wk 52. At Wk 100 most patients had EASI ≤3 (n = 120/141, 85%), POEM sleep ≤1 (n = 117/121, 97%), DLQI ≤5 (n = 103/120, 86%), and POEM itch ≤1 (n = 81/121, 67%). Most patients with moderate-to-severe AD and an initial optimal response to dupilumab maintained clear/almost clear skin, no/very low frequency of itch and sleep disturbance, and minimal/no QoL impact for 2 years. Maintenance with q8w offered less optimal itch control.

P6#1123
DUPILUMAB'S LONG-TERM LAB SAFETY IN YOUNG PATIENTS WITH AD: 3-YEAR PHASE 3 DATA

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Previous studies of dupilumab for the treatment of moderate-to-severe atopic dermatitis (AD) over 16 weeks demonstrated no clinically important changes in laboratory parameters in young patients. We assessed laboratory outcomes in children aged <12 years for up to 3 years of dupilumab treatment. Children aged 6 months to <12 years with moderate-to-severe AD were enrolled in the open-label extension study, LIBERTY AD PED-OLE (NCT02612454). Patients aged 6 months to <6 years (n=180) received dupilumab 200 mg q4w (5–<15 kg) or 300 mg q4w (15–<30 kg); patients aged 6 to <12 years (n=383) received dupilumab 200 mg q2w (30–<60 kg) or 300 mg q2w (≥60 kg). Topical corticosteroid treatment was permitted. Hematology and serum chemistry parameters were recorded at baseline, and Weeks 52, 104, and 152. Of 180 patients aged 6 months to <6 years, 163/148/101 completed up to 52/104/152 weeks of treatment; 383 patients aged 6 to <12 years, 327/267/250 completed up to 52/104/152 weeks of treatment. For patients completing Week 152, hematology (hemoglobin, platelets, leukocytes, neutrophils, and eosinophils) and serum chemistry markers (aspartate transferase, alanine aminotransferase, alkaline phosphatase, and lactate dehydrogenase [LDH]) remained stable over 152 weeks of treatment in both 6-month- to <6-year-olds and 6- to <12-year-olds. Laboratory abnormalities reported as treatment-emergent adverse events (≥1% of patients) were (MedDRA Preferred Terms) Eosinophilia, Thrombocytopenia, Hematology test abnormal, and Hypothyroidism (all 1%) in 6-month- to <6-year-olds and Neutropenia (1.6%) and Eosinophilia (1.2%) in 6- to <12-year-olds. Our results of up to three years of dupilumab treatment in children 6 months to <12 years demonstrate safety was consistent with the known dupilumab safety profile, supporting no need for routine laboratory monitoring.

P6#1125
TRALOKINUMAB PROVIDES LONG-TERM CONTROL OF HEAD AND NECK ATOPIC DERMATITIS: END-OF TREATMENT RESULTS FROM THE 5-YEAR OPEN-LABEL ECZTEND STUDY

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Atopic dermatitis (AD) is a chronic skin disease, which is particularly burdensome and difficult to treat when involving the head and neck (H&N). ECZTEND (NCT03587805) is an open-label 5-year extension study of tralokinumab 300 mg Q2W ± optional TCS/TCI in patients aged ≥12 years with moderate-to-severe AD. An interim analysis showed progressive and sustained improvements in H&N AD in patients treated for up to 1 year in the parent trials ECZTRA 1&2 plus up to 3 years in ECZTEND. To assess long-term efficacy of tralokinumab treatment on H&N AD in patients followed for up to 5 years. This post hoc analysis included patients completing one of the parent trials ECZTRA 1–8

who were subsequently followed for up to 5 years in ECZTEND. Outcomes included overall EASI and body region sub-scores (H&N, upper limbs, trunk, lower limbs). Patients with H&N EASI ≥1 at parent trial baseline who achieved ≥75% improvement in H&N EASI (H&N EASI-75), H&N EASI 0, or H&N EASI ≤1 were analyzed. Data were analyzed as observed. Median [IQR] H&N EASI decreased from 2.8 [1.8; 4.2] at parent trial baseline to 0.4 [0.1; 1.4] upon entering ECZTEND (n=1639). This reduction was maintained through Week 248 in ECZTEND (0.1 [0.0; 0.6], n=84). A sensitivity analysis using LOCF for missing data showed comparable results (median H&N EASI at Week 248: 0.2 [0.0; 0.8], n=1639). Improvements in the H&N region were similar compared to other body regions. In subjects with H&N EASI ≥1 at parent trial baseline, H&N EASI-75 was observed in 84.4% (95%CI: 74.6; 91.0%), H&N EASI =0 in 46.8% (36.0; 57.8%), and H&N EASI ≤1 in 89.6% (80.6; 94.9%) of patients. Tralokinumab provided sustained improvements of H&N AD in patients (≥12 years) continuing treatment for up to 5 years, indicating that tralokinumab is an efficacious long-term option for AD patients with H&N involvement.

P6#1147

APPLICATION OF REAL-WORLD EFFECTIVENESS OUTCOMES OF UPADACITINIB TO MINIMAL DISEASE ACTIVITY CRITERIA FOR ATOPIC DERMATITIS: A RETROSPECTIVE MULTICENTER ANALYSIS OF 1 YEAR DATA

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While randomized controlled trials have investigated the use of upadacitinib for atopic dermatitis (AD), real-world data remains limited. We conducted a retrospective multicenter analysis evaluating upadacitinib for AD as per the minimal disease activity (MDA) criteria, which were developed from the AHEAD Recommendations. Our retrospective multicenter study included adult and adolescent patients with AD from three Canadian institutions. The primary outcome was the proportion of patients achieving MDA week 52±6, which included the achievement of at least 1 optimal target for clinician-reported outcomes (CROs; Eczema Area and Severity Index [EASI] improvement of 90% [EASI90], EASI ≤3, or IGA 0/1 and body surface area [BSA] ≤2%) and at least 1 optimal target for patient-reported outcomes (PROs; Worst Pruritus Numeric Rating Scale [WP-NRS] 0/1 or Dermatology Life Quality Index [DLQI] 0/1). This analysis included a total of 192 patients. The mean age was 44.6 (range: 12-79) years, with 49% (94/192) being male. At week 52±6: MDA as defined by achievement of ≥1 CRO and ≥1 PRO was achieved by 71.9% (138/192) of patients in total. Specifically, at least 1 CRO (EASI90, EASI ≤3, or IGA 0/1 and BSA ≤2%) was achieved by 89.6% (172/192) of patients, while 80.2% (154/192) of patients achieved all 3 CROs. At least 1 PRO (WP-NRS 0/1 or DLQI 0/1) was achieved by 74% (142/192) of patients. In total, 86 treatment-emergent adverse events occurred (86/192, 44.8%). Three treatment discontinuations (1.6%) were noted (HSV [n=1], folliculitis [n=1], and respiratory failure [n=1]. Our real-world results indicate that the majority of patients with AD treated with upadacitinib achieved at least one optimal target for CRO and PRO as per the MDA criteria. Study limitations include a lack of complete real-world documentation for certain metrics (e.g. WP-NRS).

P6#1149

ANCHORED MATCHING-ADJUSTED INDIRECT COMPARISON OF TREATMENT EFFICACY BETWEEN DUPILUMAB AND LEBRIKIZUMAB IN PATIENTS WITH MODERATE-TO-SEVERE ATOPIC DERMATITIS

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Without direct treatment comparisons for moderate-to-severe atopic dermatitis (AD), a placebo-anchored matching-adjusted indirect comparison (MAIC) was conducted to match baseline (BL) characteristics of a dupilumab trial to a lebrikizumab trial. We compared the efficacy of dupilumab + topical corticosteroids (TCS) to lebrikizumab + TCS using anchored MAIC. LIBERTY AD CHRONOS (NCT02260986) and ADhere (NCT04250337) enrolled patients with moderate-to-severe AD aged ≥18 and ≥12 years, respectively. In CHRONOS and ADhere, 315 and 66 patients received placebo + TCS, respectively; 106 received 300 mg dupilumab every 2 weeks (q2w) + TCS and 145 received 250 mg lebrikizumab q2w + TCS. Week 16 data, with non-responder imputation, were analyzed. Matching variables included: mean (SD) of age and Eczema Area and Severity Index (EASI) score; sex (%), race (%), and Investigator's Global Assessment (IGA) score 4 (%). Odds ratios (OR, 95% CI) were calculated for IGA (0/1) and ≥2-point improvement from BL, 75% improvement from BL in EASI (EASI-75), ≥4-point improvement from BL in peak pruritus numeric rating scale (PP-NRS) score, and ≥4-point improvement from BL in Dermatology Life Quality Index (DLQI) score. After matching, the CHRONOS effective sample size was 129 for placebo and 34 for dupilumab + TCS as CHRONOS patients less comparable to ADhere were down-weighted. Compared to lebrikizumab + TCS, patients in the matched dupilumab + TCS group were more likely to achieve IGA (0/1) and ≥2-point improvement (OR 2.16; 95% CI 0.76, 6.16), EASI-75 (OR 2.81; 95% CI 1.04, 7.6), PP-NRS ≥4-point improvement (OR 4.75; 95% CI 1.71, 13.15), and DLQI ≥4-point improvement (OR 1.49; 95% CI 0.49, 4.54). In this anchored MAIC analysis, patients had a higher likelihood of improving AD signs, symptoms, and quality of life when treated with dupilumab + TCS vs lebrikizumab + TCS at Week 16.

P6#1150

EFFECTIVENESS OF 12-MONTHS TRALOKINUMAB TREATMENT IN 124 ADULTS WITH ATOPIC DERMATITIS WITH GENITAL INVOLVEMENT: FINAL REAL-WORLD DATA FROM THE PROSPECTIVE, NON-INTERVENTIONAL, INTERNATIONAL, SINGLE-COHORT TRACE STUDY

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Background: Genital involvement in atopic dermatitis (AD) is often overlooked, despite its prevalence and profound effects on patients' well-being. Tralokinumab is indicated for the treatment of moderate-to-severe AD, with growing evidence to support its use in managing genital AD. Objective: To evaluate changes in disease severity and patient-reported outcomes (PROs) in AD patients with genital involvement receiving up to 12-months treatment with tralokinumab in a real-world setting. Methods: TRACE is a prospective, non-interventional, international, single-cohort study of adults with AD who received tralokinumab according to national approved label at treating physician's discretion. Assessments included IGA, EASI, SCORAD, DLQI, PP-NRS and sleep-NRS. Results: In the cohort of patients with genital involvement at baseline (n=124), the proportion with genital involvement fell markedly to 21.7% (n=106) at month 3 and 5.8% (n=69) at month 12. The proportion of composite responders (i.e. achieving IGA 0/1, EASI ≤7, or SCORAD ≤9.9) increased rapidly to 59.2% (n=98) at month 3 and 79.3% (n=58) at month 12. Individual measures, IGA 0/1 (clear or almost clear skin) increased from 0% (n=120) of patients at baseline, to 53.6% (n=56) at month 12, while EASI ≤7 (no or mild eczema) increased from 5.9% (n=101) at baseline to 80.0% (n=50) at month 12. All PROs also improved from baseline to month 12: the proportion with DLQI ≤5 (no to small QoL impairment) increased from 12.7% (n=63) to 59.1% (n=22); mean PP-NRS decreased from 6.9 (n=63) to 3.9 (n=18); and mean Sleep-NRS decreased from 6.1 (n=53) to 3.4 (n=17). Conclusions: In a real-world setting, 12-months of tralokinumab treatment improved disease severity and QoL measures in a substantial proportion of adult AD patients with genital involvement, with improvements seen as early as month 3.

P6#1158
REAL-WORLD ANALYSIS FOR LONG-TERM TREATMENT OF ABROCITINIB IN CHINESE PATIENTS WITH ATOPIC DERMATITIS: A SINGLE-CENTRE PROSPECTIVE STUDY

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Abrocitinib has shown significant efficacy and safety in clinical trials for moderate-to-severe atopic dermatitis (AD), but long-term real-world data is scarce. To assess the long-term efficacy, safety, and drug survival of abrocitinib in a real-world setting. This prospective study enrolled 147 moderate-to-severe AD patients, and physician- and patient-reported outcomes were evaluated at multiple time points. Abrocitinib rapidly reduced Eczema Area and Severity Index (EASI) and Itch-NRS by week 4, with effects lasting through week 52. At week 12, 77.9% of patients achieved EASI-75 and 52.5% reached EASI-90. At week 52, these figures were 81.4% and 51.4%, respectively. Improvement was less notable in the head and neck than in the lower limbs at week 52. A disease duration under 7 years was a potential predictor for a better long-term response. Patients reaching EASI-75 by week 4 were more likely to maintain control over the long term. Adverse events were reported in 62.6% of patients, with 29.9% experiencing new issues after 12 weeks. Common issues included lab abnormalities (29.3%), acne-like eruptions (19.7%), and gastrointestinal symptoms (17.7%), with the latter two being reported mostly within week 12. Post-12 weeks, there was an increase in hypercholesterolemia, abnormal liver function, and infections. The overall drug survival rate was 70.2% at week 52. Abrocitinib showed promising efficacy in Chinese patients with moderate-to-severe AD, but consistent lab monitoring is crucial for long-term safety.

P6#1159
COMPARISON OF SERUM BIOMARKERS BEFORE AND AFTER LONG-TERM DUPILUMAB TREATMENT IN KOREAN PATIENTS WITH SEVERE ATOPIC DERMATITIS

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Serum biomarkers are known to reflect the inflammatory profile of atopic dermatitis (AD). While dupilumab has shown clinical efficacy in AD, limited data exist on long-term biomarker changes, particularly in Korean populations. To evaluate serum biomarker changes before and after long-term dupilumab treatment in Korean patients with moderate-to-severe AD and to explore population-specific characteristics through comparison with healthy controls and prior literature. Twenty Korean patients with moderate-to-severe AD who continued dupilumab treatment for over six months and had paired serum samples collected at baseline and 10 months post-treatment were included. 45 biomarkers were quantified using the Olink cytokine panel. Data were compared with those of 11 healthy controls. Subgroup analyses were conducted based on age of AD onset, serum IgE levels, and EASI90 response. In patients with moderate-to-severe AD, a comparison of serum samples before and after long-term dupilumab treatment revealed a significant increase in IL-4 and significant decreases in IL-18, CCL-13, and MMP-12 ($p<0.05$). Patients were defined as having moderate-to-severe AD if their disease remained inadequately controlled despite prior immunomodulatory therapy. Subgroup analysis revealed no intergroup differences based on age of onset; however, within-group comparisons showed significant changes in IL-18, CSF-3, IL-17C, CCL-17, and MMP-1. Patients with elevated IgE demonstrated significantly higher HGF and VEGF-A levels compared to those with normal IgE. No biomarkers were associated with EASI90 response. Long-term dupilumab treatment led to clinical improvement and measurable changes in select serum biomarkers. These findings suggest systemic immunologic modulation with extended biologic therapy in Korean patients with AD.

P6#1160
NUMMULAR DERMATITIS AS A POTENTIAL ADVERSE EFFECT OF DUPILUMAB: A REPORT OF TWO CASES

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Nummular dermatitis is characterised by itchy, well-defined plaques. Its pathogenesis remains incompletely understood. Dupilumab, an IL-4 and IL-13 inhibitor, is approved for moderate-to-severe atopic dermatitis and is known to trigger psoriasis in some patients. We report two cases of new-onset nummular dermatitis following dupilumab in individuals with longstanding atopic dermatitis but no prior history of nummular lesions. Patient 1, a 34-year-old woman with childhood-onset atopic dermatitis affecting the eyelids, flexures, and abdomen, experienced near-complete resolution on dupilumab. However, within five months of starting therapy, she developed intensely itchy well-defined plaques on the upper arm, axilla, and anterior thigh, requiring ongoing topical corticosteroids despite continued excellent control of her atopic dermatitis elsewhere.

Patient 2, a 70-year-old man with long-standing, widespread atopic dermatitis also demonstrated an excellent response to dupilumab. However, on review four months after commencing the treatment, he developed intensely pruritic discoid lesions on his flanks and lower back. Histopathology supported the diagnosis of nummular dermatitis. Reports of nummular dermatitis treated successfully with dupilumab have suggested Th2 hyperactivation as the mechanism of disease. However, the new-onset lesions in our patients suggest a more complex process than previously thought. Further studies are needed to clarify the pathogenesis of nummular dermatitis and its potential emergence as a dupilumab-associated adverse effect.

P6#1168

PHASE 2B TRIAL OF ZABALAFIN HYDROGEL, A NOVEL TOPICAL BOTANICAL DRUG THAT ADDRESSES THE FOUR DEMONS OF ATOPIC DERMATITIS

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S. aureus' role in the etiology/exacerbation of atopic dermatitis (AD) is recognized as a necessary target for a comprehensive therapeutic approach. The ideal AD treatment should target the 4 "demons" of AD, inflammation, xerosis, pruritus, and colonization/infection with S. aureus. Single target agents do not suffice and also have AEs/patient tolerability issues. An unmet need exists for a topical drug that provides comprehensive management of the 4 AD demons, including progression of S. aureus from colonization/pathogenic colonization/infection, and is safe and effective for all ages. Zabalafin is a first-in-class complex topical botanical drug containing multiple compounds with multiple mechanisms of action, enabling the targeting of the four AD demons, with a low-risk side-effect profile. A 16-week Phase 2b double-blind vehicle-controlled trial has been initiated assessing the safety and efficacy of zabalafin hydrogel BID in mild/moderate AD that was colonized, (Cohort A) or in mild/moderate AD with AD at the infection stage (Cohort B). Parameters to be measured include vIGA (clear or almost clear, ≥2-pt improvement), EASI50/75, pruritus ≥4-pt improvement, SIRS, infection status, and QoL improvement (POEM) ≥6-pt change. Microbiome analysis is being conducted to assess the effectiveness of zabalafin against dysbiosis/restoration of the skin barrier. While the study remains blinded a trend indicating a likely separation between arms exists across all efficacy/safety parameters. If the trend holds on unblinding, the results parallel what was seen in Phase 2a, where efficacy/safety was demonstrated for all endpoints regardless of initial infection status. These findings continue to demonstrate the potential for zabalafin as a single comprehensive topical approach for mild to moderate AD management regardless of infection status.

P6#1170

LONG-TERM EFFICACY AND SAFETY OF NEMOLIZUMAB UP TO 2 YEARS IN PATIENTS WITH MODERATE-TO-SEVERE ATOPIC DERMATITIS: PIVOTAL TRIAL SUBGROUP ANALYSIS OF THE ARCADIA LTE

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Introduction: Long-term clinical data on treatments for atopic dermatitis (AD) are crucial to inform prognosis, guide treatment decisions and plan healthcare resources. The ARCADIA long-term extension (LTE) study (NCT03989206) assessed safety and efficacy of nemolizumab in a heterogeneous population of patients with moderate-to-severe AD, enrolled from several Phase 2/3 studies. Objective: To assess safety and efficacy in a more homogeneous subgroup comprising only patients enrolled from the ARCADIA Phase 3 trials. Method: This pre-planned subgroup analysis included patients who were either nemolizumab-previously experienced (NPE) or nemolizumab-naïve (NN). All patients received nemolizumab Q4W in the LTE. Efficacy endpoints included IGA score 0/1, EASI-50/75/90 (from lead-in baseline), ≥4-point improvement from lead-in baseline in SCORAD VAS pruritus/sleep loss, SCORAD VAS pruritus/sleep loss score <2, and DLQI/cDLQI score 0/1. AEs were reported. Observed case data (up to W104) were used to summarise efficacy endpoints. Results: At data cutoff, 945/1433 (66%) patients completed W104. At W104, the proportion of NPE and NN patients achieving efficacy outcomes was 62% and 59% for IGA 0/1, 97% and 98% for EASI-50, 88% and 86% for EASI-75, 67% and 65% for EASI-90, 70% and 67% for SCORAD VAS pruritus <2, 87% and 82% for SCORAD VAS pruritus ≥4-point improvement, respectively. SCORAD VAS sleep loss showed similar results to pruritus. Sensitivity analyses (multiple imputation [missing at random]) of IGA score 0/1 and EASI-50/75/90 at W56 showed similar results. DLQI scores improved over time. Most AEs were non-serious and did not lead to study discontinuation, consistent with the overall LTE population. Conclusion: Treatment with nemolizumab up to W104 was well tolerated and associated with improvements in pruritus, skin lesions and sleep disturbance.

P6#1186

TRALOKINUMAB IS EFFECTIVE AND WELL-TOLERATED IN ADULTS WITH ATOPIC DERMATITIS WITH MODERATE-TO-SEVERE HAND INVOLVEMENT WHO ARE CANDIDATES FOR SYSTEMIC THERAPY: WEEK 16 RESULTS FROM THE PHASE 3B ADHAND TRIAL

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Hand involvement in atopic dermatitis (AD) causes particular physical and psychologic burden and has limited treatment options. Tralokinumab showed efficacy and safety in moderate-to-severe AD. ADHAND (NCT05958407) is a phase 3b randomized, 32-week trial of AD patients with moderate-to-severe hand involvement (HandAD). To investigate the efficacy and safety of tralokinumab treatment during the 16-week double-blind period in HandAD patients. 235 patients were randomized 2:1 to receive tralokinumab 300 mg or placebo (PBO) Q2W. Inclusion criteria were: Investigator's Global Assessment for Atopic Hand Eczema (IGA-AHE) score 3 or 4; Hand Eczema Symptom Diary (HESD) itch score ≥4; inadequate response to topical medications; AD involvement of ≥1 location other than hands/wrists. The primary endpoint was the proportion achieving IGA-AHE 0/1 at Week 16. Key secondary endpoints included proportions achieving Hand Eczema Severity Index (HECSI)-90/-75, and ≥4-point reductions in HESD itch/pain scores at Week 16. At Week 16, significantly more patients receiving tralokinumab (40.0% of 156 [95% CI: 31.3;49.4]) vs PBO (10.6% of 79 [5.0;20.9]) achieved IGA-AHE 0/1. The proportions of participants achieving HECSI-90/-75 were 41.7% [33.0;50.9] / 64.1% [55.3;72.0]. ≥4-point reductions in HESD itch and HESD pain were observed in nearly half of patients receiving tralokinumab. Rates of reported adverse events (AEs), serious AEs, and AEs leading to withdrawal from trial were low and similar between tralokinumab and PBO. Tralokinumab demonstrated superior efficacy vs PBO across all primary and key secondary endpoints at 16 weeks, with an overall frequency of AEs consistent with PBO, in HandAD patients, offering tralokinumab as a potentially valuable treatment option for this hard-to-treat population.

P6#1187

SAFETY, TOLERABILITY, PHARMACOKINETICS, AND PHARMACODYNAMICS OF BBT001, A NOVEL BISPECIFIC IL-4RA/IL-31 ANTIBODY: RESULTS FROM THE SINGLE-ASCENDING DOSE PORTION OF A DOUBLE-BLIND, PLACEBO-CONTROLLED PHASE I STUDY IN HEALTHY VOLUNTEERS AND PATIENTS WITH A

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BBT001 is a tetravalent "2+2" bispecific antibody against IL-4/13 and IL-31, with Fc modifications for extended half-life. By targeting two distinct yet complementary type II inflammatory pathways, BBT001 can potentially become a best-in-disease therapy for Th2-driven skin inflammation diseases including atopic dermatitis (AD). n/a BBT001-001 (NCT06808477) is a randomized, double-blind, placebo-controlled FIH study assessing safety, tolerability, PK, immunogenicity, PD, and exploratory clinical activity after single- and multiple-ascending doses (SAD and MAD) in healthy volunteers (HVs) and adults with moderate-to-severe AD. In SAD, HVs were randomized across 5 cohorts to receive a single IV infusion of BBT001 (50–1200 mg) or placebo. As of Aug 5, 2025, 38 HVs had received BBT001 or placebo. No dose-limiting toxicities (DLTs) occurred up to 1200 mg. 17/28 (60.7%) subjects experienced at least 1 TEAEs on BBT001 versus 5/10 (50%) on placebo. Most TEAEs were mild or moderate and resolved without sequelae. The incidence of TEAEs considered related, possibly related, or probably related to the study treatment was low with no dose dependent toxicity observed. No clinically meaningful changes in labs, ECGs, or vital signs were observed. PK showed nonlinear clearance at lower doses and prolonged half-life at doses >150 mg. ADA incidence was low with low titers and no apparent impact on PK or safety. PD analyses showed rapid pSTAT6 inhibition and complete IL-4Rα binding as early as day 1 at all dose levels. Robust and dose-dependent suppression of serum TARC levels was evident by week 2 and sustained through >8 weeks. BBT001 was well tolerated at all doses with no DLTs, and demonstrated prolonged half-life with rapid, potent and durable target engagement. These results support advancing BBT001 into MAD and evaluation in patients with moderate-to-severe AD.

P7. Complications and Comorbidities of Atopic Dermatitis

P7#1006

CUMULATIVE LIFE COURSE IMPAIRMENT IN MODERATE-TO-SEVERE ATOPIC DERMATITIS: A CROSS-SECTIONAL STUDY IN SINGAPORE

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Atopic dermatitis (AD) significantly impacts patients' quality of life over their lifespan. Measures such as Dermatology Life Quality Index (DLQI) and Patient-Oriented Eczema Measure (POEM) primarily assess effects at a single time point, potentially overlooking cumulative impairment. The Cumulative Life Course Impairment (CLCI) model evaluates both retrospective (CLCI R) and prospective (CLCI P) disease burdens This study, aims to extensively assess CLCI in moderate-to-severe AD patients and its association with disease severity and quality-of-life metrics. A cross-sectional study was conducted involving 82 adult patients diagnosed with moderate-to-severe AD. Participants completed CLCI R & P questionnaires. Clinical assessments included EASI, POEM & DLQI. Statistical analyses include Spearman's correlation coefficients to assess associations, Mann-Whitney U tests for group comparisons, and multiple regression analyses to determine independent predictors of cumulative impairment. Mean CLCI R score was 29.4 ± 1.88, with no significant difference between moderate and severe AD groups (p=0.907). CLCI P scores were significantly higher in severe AD patients (28.4 ± 5.50 vs. 15.9 ± 1.96; p=0.007. Statistically significant correlations were observed between CLCI P and DLQI (r=0.611, p<0.01) and disease severity (r=0.489, p<0.01). Multiple regression analysis identified DLQI (β=0.07 (0.04,0.10), p<0.001), CLCI-R (β=0.02 (0.01,0.03), p<0.001), disease duration ≥21 years (β=0.33 (0.05,0.60), p=0.019), and age >34 years (β= -0.38 (-0.66,-0.10), p=0.007) as significant predictors of prospective impairment. This study highlights significant cumulative impairment in moderate-to-severe AD patients. Future research should validate these results longitudinally and explore interventions to reduce cumulative disease burden.

P7#1014

ATOPY AND NEPHROTIC SYNDROME

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This presentation highlights an under-recognised association in the dermatology literature between atopic disease and nephrotic syndrome. There is strong evidence that 50% of patients with nephrotic syndrome have atopy. Hence, monitoring renal function in patients with severe eczema may provide information about evolving kidney injury. We discuss the pathophysiology and interpretation of indirect markers of renal function beyond serum creatinine and eGFR. These include hypercholesterolaemia, iron deficiency, hypoalbuminaemia and Vitamin D deficiency. These abnormalities are elicited through investigations routinely performed for severely atopic patients, and hence, can raise suspicion for kidney injury. This presentation advocates for nephrotic syndrome to be a recognised comorbidity for eczema and encourages screening with urinalysis, urinary protein, albumin and albumin/creatinine ratios in suspected cases. A 16-year-old fit male presented to the dermatologist with severe, generalised eczema (EASI 43 and DLQI 23). Baseline blood investigations revealed eosinophilia, hypoalbuminaemia, iron deficiency, Vitamin D deficiency and hypercholesterolaemia. The patient believed his eczema was allergy-related and hence ate a restrictive diet which was initially presumed the contributor of protein, vitamin and mineral deficiencies. Upadacitinib was commenced with his eczema improving in 6 months (EASI 5.2 and DLQI 16). However, the blood abnormalities persisted. As hypercholesterolaemia is a known adverse effect of upadacitinib, the patient was switched to dupilumab. Within days, he presented to ED with sudden onset of peripheral oedema. Further investigation revealed proteinuria (>15,00mg/24hrs) and renal biopsy confirmed minimal change disease, hence, he was diagnosed with severe nephrotic syndrome.

P7#1015
HEALING BEYOND THE SURFACE: A SYSTEMATIC REVIEW OF INTEGRATIVE APPROACHES TO SLEEP MANAGEMENT IN ATOPIC DERMATITIS

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Sleep disturbances are a prevalent yet under-recognised comorbidity in patients with atopic dermatitis (AD). These disturbances are associated with substantial impairments in health-related quality of life. Despite the clinical relevance, the therapeutic impact of interventions on sleep parameters in AD remains insufficiently characterised. To perform a systematic review of the literature on atopic dermatitis and the treatments available for improving sleep parameters. A literature review was performed using the PubMed, Ovid MEDLINE, Embase, Cochrane, and ClinicalTrials.gov databases from 1945 to 2021. Studies were screened using predefined exclusion criteria and graded for quality using the Strength of Recommendation Taxonomy. Only studies graded "2" or higher were included in the final analysis. Twenty-five treatment studies (n = 11,025) reporting on sleep parameters in skin disease were identified, the majority of which focused on AD. Dupilumab demonstrated the strongest and most consistent evidence for improving sleep in AD, although adverse effects were commonly reported. Topical therapies showed minimal efficacy in alleviating sleep disturbance, whereas procedural interventions showed some benefit. A smaller number of studies examining other skin conditions also indicated potential sleep-related improvements with systemic therapies. Current evidence for sleep improvement in AD suggest systemic agents like dupilumab demonstrated the most consistent benefits. In contrast, topical therapies show limited efficacy in improving sleep, and while some procedural interventions appear promising, their role remains less defined. Incorporating sleep outcome measures into future dermatological treatment trials could enhance understanding and guide holistic patient care.

P7#1024
FREE TEXT ANALYSIS OF INSIGHTS FROM AN INTERNATIONAL ATOPIC DERMATITIS COMMUNITY PATIENT AND CAREGIVER SURVEY

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Atopic dermatitis (AD) affects individuals of all ages, although it is more common in children(4% global prevalence) than adults (2%). AD symptoms include skin pruritus, and dry, cracked skin, can be painful. Surveys have shown the pain and discomfort of AD symptoms interfere with daily activities, work, school, and sleep. The objective of this international survey was to better understand the journey to diagnosis and treatment, unmet needs and educational preferences of patients and caregivers for children diagnosed with AD residing in the US, Europe, Japan, and Gulf region. A cross-sectional anonymous online survey in 5 languages conducted from December 2024-January 2025 Participants recruited from GAAPP community and Survey Monkey. Eligible individuals were >18 years and either a patient diagnosed with AD or a caregiver for a child (6-12 years)with AD. AI analysis of over 500 translated responses was conducted using Word Art, Survey Monkey and Grok3. Of 1103 responses (62% patients; 32% caregivers), 56% from US, 25% from Europe, 13% from Gulf region, and 6% from Japan. 43% indicated AD diagnosis within the last two years and 23% within 3-5 years. Diagnosis was most commonly made by dermatologist (48%) or primary care (27%). Participants indicated regular use of OTC creams and ointments (48%), baths with gentle soap (45%), and prescription creams and ointments (38%) to treat AD; 17% used injectable biologics and 31% used a non-pharmacological technique to manage AD (relaxation,behavior modification and biofeedback). No notable differences in reported treatments for adults versus children or by country. When asked about expectations from new treatments, the most common responses globally related to less symptoms (itch, pain) and freedom from lesions. A clear opportunity exists to improve AD care to reduce burden and foster better outcomes globally.

P7#1039
ATOPIC DERMATITIS PREDISPOSES ADOLESCENTS TO HIGH RISK OF PSYCHIATRIC COMORBIDITIES

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Atopic dermatitis (AD) due to its chronic course and severe itch significantly affects patients' mental health. However, comprehensive estimates of the psychiatric effects of AD among adolescents remain limited. To quantify the risk and cumulative burden of a wide range of psychiatric disorders in patients with AD compared to propensity-matched controls. We conducted a retrospective cohort study using data from the TriNetX federated electronic health records. Adolescents aged 12 to 18 diagnosed with AD (ICD L20) for the first time and with no prior psychiatric illnesses were matched 1:1 to individuals attending routine

preventive visits based on age and sex (n = 265173 per group). We tracked psychiatric outcomes for up to five years after the diagnosis. Relative risks (RRs) and hazard ratios (HRs) were calculated using multivariable Poisson and Cox models. Any psychiatric comorbidity was diagnosed in 17.1% of adolescents with AD, compared to 5.7% of controls (HR 3.14). The most pronounced increases in risk were observed for personality disorders (HR 4.73), somatoform disorders (HR 3.68), anxiety (HR 2.88), eating disorders (HR 2.85), and depression (HR 2.76). Suicidal ideation or attempts were also significantly more common in the AD group (HR 1.70). Girls with AD had markedly higher risks than boys for depression (HR 2.18), anxiety (HR 1.35), and eating disorders (HR 1.82), while self-harm was over three times more likely in females (HR 3.54). Adolescents with AD more frequently underwent psychiatric evaluation (HR 2.82), received psychotherapy (HR 2.75), and were prescribed psychiatric medications (HR 1.42). AD among adolescents is associated with an approximately 300% higher risk of developing various psychiatric conditions. Therefore, routine mental health screenings should be standard components of AD management.

P7#1040

SYSTEMIC CONTACT DERMATITIS INDUCED BY NICKEL AS A TRIGGER FOR ATOPIC DERMATITIS EXACERBATION: A CASE REPORT

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Successful management of atopic dermatitis (AD) requires identifying and avoiding trigger factors. Dermatitis after ingestion of an allergen which causes contact hypersensitivity is known as systemic contact dermatitis (SCD), and this is implicated as a trigger for AD. One of the most common allergens known to cause SCD is nickel. Some nickel-allergic patients may react to levels typically present in a normal diet(e.g., black tea). n/a n/a Case Report An 8-year-old boy with atopic dermatitis presented with erythematous lesions on the flexural surfaces of his limbs and the groin. Initial treatment with topical corticosteroids and calcineurin inhibitors controlled the disease, except for recurrent flares in groin area. Patch testing revealed sensitization to a textile dye and nickel. Following recommendations to wear only white cotton underwear, his condition improved, although periodic flares still occurred. Given that nickel can trigger SCD, we advised to reduce his dietary intake of nickel. A leaflet listing high-nickel-content foods was provided. Eventually, the patient's parents observed that flares were associated with high black tea consumption. After reducing black tea intake, the eczema went into remission. Nickel is one of the most common allergens implicated in SCD. It has been observed that nickel sulfate, when administered orally in doses ranging from 0.6 mg to 5.6 mg, may provoke eczema in sensitized individuals. The nickel content of black tea varies considerably, ranging from 7.8–12 mg/kg in instant tea to as much as 62.79 mg/kg in tea bags. In nickel-sensitive individuals, consuming large amounts of black tea may trigger SCD Given that atopic dermatitis may be exacerbated by multiple triggers, systemic contact dermatitis should be considered a potential contributing factor in cases refractory to standard therapy.

P7#1058

A CASE OF MORBIHAN DISEASE COMPLICATING REFRACTORY FACIAL LESIONS IN ATOPIC DERMATITIS

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Facial lesions in atopic dermatitis (AD) are often refractory, and various comorbidities or differential diagnoses may underlie these cases. Here, we report a case of AD complicated by Morbihan disease, presenting with persistent facial erythema and edema. n/a n/a n/a A man in his 30s with a long-standing history of AD since childhood presented with progressive facial erythema and edema in recent years. These symptoms were resistant to topical corticosteroids and tacrolimus ointment. Marked swelling of the eyelids and cheeks significantly impaired his daily life. A skin biopsy was performed for differential diagnosis, which revealed dermal infiltration of leukocytes, edema, vascular dilation, leading to a diagnosis of Morbihan disease. Refractory facial lesions in AD patients may be due not only to exacerbation of AD itself but also to the coexistence of other conditions such as Morbihan disease. Morbihan disease is characterized by chronic edematous facial erythema and can be difficult to distinguish from AD. As demonstrated in this case, when persistent facial erythema and edema are observed, thorough evaluation including skin biopsy is essential. Moribihan disease should be considered as a potential cause of refractory facial lesions in atopic dermatitis. Recognition and accurate diagnosis of this condition are crucial for determining appropriate treatment strategies.

P7#1061

PSYCHOSOCIAL IMPACT OF ATOPIC DERMATITIS IN CHILDREN WITH AUTISM SPECTRUM DISORDER

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Children with autism spectrum disorder (ASD) who also have atopic dermatitis (AD) face unique challenges that adversely affect their psychological wellbeing and place a significant emotional burden on caregivers. These children exhibit greater ASD symptom severity than those without AD, possibly due to chronic discomfort, sleep disruption, and systemic inflammation affecting neurodevelopment. A dose-dependent relationship exists between AD severity and comorbid psychiatric conditions, including anxiety, depression, ADHD, and conduct disorders, which can be especially difficult to manage in children with concurrent ASD. To address the gaps in the literature, we reviewed the psychosocial impact of AD in children with ASD, with a focus on caregiver burden given the rising prevalence of ASD globally. We conducted a narrative review using Medline (1946–July 2025), Embase (1947–July 2025), and PsycINFO (1806–June 2025) with terms related to "autism spectrum disorder," "atopic dermatitis," and "eczema." Eligible studies included those reporting on psychosocial outcomes among caregivers of children with co-morbid AD and ASD. Limited research directly examines the experience of managing co-morbid AD and ASD in both child and caregiver. However, the concurrence of conditions is associated with increased risk of psychiatric conditions, reduced quality of life and increased parental stress. Children with both AD and ASD likely require more intensive caregiving due to behavioural, emotional, and developmental challenges, placing greater psychosocial strain on caregivers and thus the healthcare system.

P7#1062

ASSOCIATIONS BETWEEN ATOPIC DERMATITIS AND THYROID DISEASES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Atopic dermatitis (AD) and thyroid diseases exhibit shared immune dysregulation and genetic susceptibility, but their association lacked a systematic analysis. To evaluate the associations of AD with thyroid diseases. We conducted a systematic review and searched MEDLINE, Embase, and CENTRAL for relevant studies. The risk of bias was assessed using the Newcastle-Ottawa Scale. We performed a random-effects model meta-analysis with a subgroup analysis based on age. We included 12 observational studies with 93,547,813 subjects. The meta-analysis of 10 case-control studies revealed significant association of AD with prevalent thyroid diseases (odds ratio [OR]1.48; 95% confidence interval [CI] 1.17-1.88), including Hashimoto disease (OR 2.13; 95% CI 1.33-3.43) and Graves disease (OR 1.56; 95% CI 1.03-2.37). Pediatric AD patients exhibited a stronger association (OR 1.88; 95% CI 1.48-2.37) than adults (OR 1.34; 95% CI 1.00-1.80). Two cohort studies reported increased risks of incident thyroid diseases (incidence risk ratio 1.13; 95% CI 1.05-1.22) and Hashimoto disease (hazard ratio 1.17; 95% CI 1.09-1.25) among AD patients. AD is associated with thyroid diseases, particularly in pediatric patients, warranting endocrinological consultation and early intervention to mitigate potential impacts on growth and cognitive development.

P7#1067
PSYCHIATRIC COMORBIDITIES IN PATIENTS WITH ATOPIC DERMATITIS: THE IMPORTANCE OF THE MULTIDIMENSIONAL IMPACT OF THE DISEASE

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The prevalence of psychiatric comorbidity is high among patients with atopic dermatitis (AD). Clinical variables play a proven, yet minor, role in explaining patients' mental health, and the role of patient-reported disease burden needs to be further explored. Using the new Patient-Reported Impact of Dermatological Diseases (PRIDD), this study examined the associations between sociodemographics, clinical variables, disease impact, and anxiety and depression scores. A global online survey was conducted between 06.2023 and 01.2024. Adults with a self-reported skin condition were recruited through patient organizations and social media. Participants completed the PRIDD questionnaire (16 items assessing physical, life responsibilities, psychological and social impact domains), the Patient Health Questionnaire (PHQ-9), the General Anxiety Disorder Screener (GAD-7), and provided sociodemographic and clinical information. From the 275 participants with AD (72.7% female, 39.4±13.4 years, from 32 different countries), 99 (36.0%) scored above the threshold for clinical depression (PHQ-9≥10) and 73 (26.5%) for clinical anxiety (GAD-7≥10). In hierarchical regression analyses, sociodemograhics (younger age, darker skin type) explained 10.2% and 10.4% of the variance in depression and anxiety scores. Clinical variables explained 14.6% of depression and 14.7% of anxiety scores, with higher disease severity and presence of comorbidities associated with worse mental health. PRIDD physical and social dimensions explained an additional variance of 20% for depression, and psychological and social dimensions explained 15.8% for anxiety. These results emphasize the importance of capturing the multidimensional burden of AD, as an important risk factor for psychiatric comorbidity.

P7#1094
ATOPY AND ALLERGIC CONTACT DERMATITIS IN OUAGADOUGOU

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Atopy is a condition characterized by the body's predisposition to produce large quantity of IgE. In adults, atopic dermatitis (DA) lesions are located in the folds, which can mimic or be associated to allergic contact dermatitis (ACD). What allergens are responsible for DCA in atopic patients? Determine the allergens involved in allergic contact dermatitis in atopic subjects A descriptive cross-sectional study was conducted from May to October 2021 on patients with ACD. Patch tests were performed with 58 allergens, including 30 from the European standard battery and 28 other allergens selected according to the context. The reading was taken at 48, 72, and 96 hours. We included 114 patients with a mean age of 36.35 years, ranging from 4 to 84 years, and 62.28% were female; the sex ratio was 0.6. Atopic patients numbered 40, or 35.08%. These patients had asthma (10/40), atopic dermatitis (11/40), allergic rhinitis (26/40), allergic conjunctivitis (14/40), and food allergies (11/40). Positive allergens in atopic patients were Peruvian balsam (8 times), euxyl K400 (6 times), fragrance mix I (6 times), nickel sulfate (6 times), and potassium dichromate (5 times). These included cosmetic ingredients and preservatives, metals, and chromate salts. All of these allergens found in the test were relevant to the location of the ACD and the patient's habits. Of 11 patients with AD and presenting with ACD, we found a positive test in 9 of them, and the allergens found were relevant. Two patients tested negative with ACD lesions initially located on the back and sole of the foot. It is important to identify allergens responsible for ACD in atopic patients. Positive allergens were mainly cosmetic ingredients and preservatives, which challenge the practitioner when choosing emollients for these patients, particularly those with AD.

P7#1112
THE IMPACT OF (HYPER)EOSINOPHILIA ON ATOPIC DERMATITIS (AD) SEVERITY AND TREATMENT RESPONSE: EVIDENCE FROM THE UK-IRISH ATOPIC ECZEMA SYSTEMIC THERAPY REGISTER (A-STAR)

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Atopic dermatitis (AD) is often accompanied by elevated blood eosinophils (eos). While eos are considered central to the pathophysiology of asthma, their clinical relevance in AD remains unclear. To study the relationship between baseline eos levels and disease severity, clinical phenotype, and treatment response in AD. A-STAR is a prospective longitudinal study of adult and paediatric AD patients receiving systemic therapy in the UK. A-STAR Patients with a baseline eos count enrolled between Oct 2018 and 30 May 2025 were included. Patients were stratified by baseline eos count (normal <500; eosinophilia 500–1500, hypereosinophilia (HEo) >1500/mm³) and eos to lymphocyte ratio (ELR; 0-<0.15; 0.15-<0.29; 0.29-<0.49 and ≥0.49). Disease severity were transformed as 0-100 scale. Data were analysed with R version 4.4.1, using multivariable adjusted regression. 696 patients (56.1% male) with a mean age of 29.5±16.3 years were included in the analysis. 10.0% of patients had prior treated with dupilumab at baseline. 47.1% of patients received dupilumab as registered drug in A-STAR. Using the normal eos count group as reference, HEo was associated with asthma diagnosis (OR (95%CI): 2.4 (1.1–2.1)) and increased AD severity (regression coefficient (95%CI): EASI: 15.0% (9.5–20.5), DLQI: 14.4% (5.2–23.6), and PP-NRS 8.8% (0.4–17.1)). Compared to the ELR 0-<0.15 group, ELR ≥0.49 were associated with asthma diagnosis (OR (95%CI): 3.16 (1.71–5.96)) and higher EASI (regression coefficient (95%CI): 11.8% (7.7-15.9)). However, ELR ≥0.49 was not associated with DLQI, PP-NRS and POEM. Eos counts were not associated with treatment response to any of the systemic therapies. High eos counts at baseline are associated with more severe AD, independent of asthma status, but not associated with treatment response.

P7#1119
SMALL PATIENTS, BIG IMPACT: COMPLICATIONS AND COMORBIDITIES OF ATOPIC DERMATITIS IN CHILDREN UNDER-5 ATTENDING THE REGIONAL DERMATOLOGY TRAINING CENTRE IN TANZANIA

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Severe forms of Atopic Dermatitis (AD) are more prevalent in younger patients and are linked to complications and comorbidities such as infections, allergic diseases and psychosocial distress. Such comorbidities are often underreported and underdiagnosed. To describe the clinical spectrum of comorbidities and complications among under-five children with moderate and severe Atopic Dermatitis attended at the Regional Dermatology Training Centre (RDTC). A retrospective study conducted at RDTC from January 2020 to December 2024. Patients with a clinical diagnosis of moderate to severe AD (SCORAD) were included. Demographic and clinical data and presence of comorbidities and complications (infectious, allergic, nutritional, psychosocial) were obtained from the medical records. Data was analysed using SPSS version 25. The study had 112 patients and majority (60%) were males. Recurrent bacterial infection accounted for 72% and 5% had eczema herpeticum. Allergic rhinitis was present in 37%, asthma symptoms in 29% and 14% had suspected food allergies. Sleep disturbance due to itch was present in 79%, failure to thrive at 21% and social withdrawal at 24%. Despite the burden, only 34% of patients had documented referrals for management of comorbidities. This 5-year retrospective study highlights the burden of comorbidities and complications in children below five years with moderate to severe AD in Northern Tanzania. Allergic and infectious complications were more prevalent; however, psychosocial and nutritional impacts were also significant. These findings highlight the need for multidisciplinary and integrated approaches in managing paediatric atopic dermatitis for better patient outcome. This study also stresses the importance of proper documentation of patient data to capture the true magnitude of the problem and to avoid underreporting.

P7#1151
EVOLVING AESTHETIC EXPECTATIONS IN PATIENTS WITH MODERATE-TO-SEVERE ATOPIC DERMATITIS AMIDST EMERGING TARGETED THERAPIES

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Atopic dermatitis (AD) is the most common chronic inflammatory skin disease, characterized by persistent pruritus and visible skin disfiguration, often leading to psychosocial distress. With the advent of advanced therapies such as biologics and oral Janus kinase inhibitors (JAKi), significant clinical improvements have been achieved in patients with moderate-to-severe AD. As disease control improves, many patients have begun to express increased interest in addressing residual or coexisting cosmetic

skin concerns. To investigate the types of cosmetic skin concerns and treatment patterns among AD patients undergoing advanced systemic therapy. We retrospectively reviewed the medical records of 27 patients treated with biologics and/or oral JAKi between May 2024 and April 2025, who also sought treatment for cosmetic skin concerns during their course of therapy. Among the 27 patients, 17 were male and 10 were female, with a mean age of 25 years. All patients achieved at least a 90% improvement in their Eczema Area and Severity Index (EASI-90). The most common cosmetic concern was acne and/or acne scarring (55.6%, n=15), followed by viral warts (29.6%, n=8), dyspigmentation (14.8%, n=4), and facial flushing (7.4%, n=2). The most frequently used treatment modalities were oral and/or topical agents (44.4%, n=12), followed by carbon dioxide laser ablation (29.6%, n=8), Nd:YAG laser toning (7.4%, n=2), and pulsed dye laser treatment (7.4%, n=2). As clinical control of AD improves with advanced therapies, addressing the emerging cosmetic concerns of these patients becomes increasingly important. Dermatologists should proactively assess and manage such needs to enhance overall patient satisfaction and quality of life.

P7#1157
PSORIASIS AND ATOPIC DERMATITIS OVERLAP: ANOTHER INCIDENTAL CASE?

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Historically, atopic dermatitis (AD) and psoriasis (PSO) were considered mutually exclusive; however, overlap phenotypes are increasingly recognized. This case report highlights diagnostic challenges in managing overlapping AD and PSO, especially in low-resource settings like Madagascar, when relying solely on clinical presentation. We propose combining detailed clinical assessment with histological evaluation and, when feasible, immunopathogenesis pathway biomarker screening to optimize management. We present a 52-year-old Malagasy patient with a family history of psoriasis and personal history of atopic rhinoconjunctivitis and asthma. He reported chronic pruritus, oozing, and scaling of the scalp, facial seborrheic areas, and major skin folds, with lichenification, a prurigo-like eruption, and post-inflammatory dyschromia elsewhere. Generalized xerosis and a prominent Dennie-Morgan sign were also noted. His three-year disease progression included recurrent flare-ups triggered by cold weather and stress. Histological findings showed psoriasis-like features and discrete spongiosis, supporting a diagnosis of inverted/seborrheic PSO associated with adult-onset AD. Both PASI and SCORAD indicated low to moderate disease severity, while DLQI was significantly impaired. Topical agents achieved extended remission. Methotrexate would be considered if flare-ups increase or therapeutic compliance decreases. Psoriatic dermatitis, or clinically overlapping AD and PSO first described in 1990s, is more common in pediatric populations (Kouwenhoven TA et al., 2019). Genomic profiling supports viewing AD and PSO as a disease spectrum rather than distinct entities (Guttman-Yassky and Krueger, 2017; Kim JE et al., 2024). Shared immunologic pathways (Th17, Th22), genetic predispositions, and microbiome similarities further link these conditions (Li M et al., 2025). Managing overlap phenotypes remains challenging in resource-limited settings, particularly when first-line therapies fail, underscoring the need for integrated diagnostic and therapeutic strategies.

P7#1161
CONTACT ALLERGY TO TOPICAL CORTICOSTEROIDS IN ATOPIC DERMATITIS: THE IMPORTANCE OF ALLERGEN SELECTION AND FORMULATION IN DIAGNOSTIC ACCURACY

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Topical corticosteroids remain central to the management of atopic dermatitis (AD), yet long-term exposure may increase the risk of allergic contact dermatitis (ACD). Conventional patch test panels may fail to detect relevant sensitizations due to limited hapten representation and differences in vehicle-related bioavailability of active substances. To evaluate the prevalence, severity, and clinical significance of contact allergy to corticosteroids and topical antibiotics in patients with AD compared to those with ACD without AD, with emphasis on the influence of allergen formulation. We retrospectively analyzed 120 patients tested between 2020 and 2024 at dermatology center in Gdańsk. The study group comprised 60 patients with both AD and ACD; the control group included 60 patients with ACD but without AD. Patch testing was performed using the Polish Baseline Series and extended allergens including hydrocortisone acetate (ointment), hydrocortisone butyrate (alcoholic solution), and clobetasol propionate. Sensitization to hydrocortisone butyrate was significantly more frequent in the AD group than in controls (13/60 [21.7%] vs. 3/60 [5.0%], $p < 0.01$), with predominantly strong reactions. Notably, none of the patients sensitized to hydrocortisone butyrate reacted to tixocortol pivalate or hydrocortisone acetate, despite expected cross-reactivity. Clobetasol allergy was more common in adult patients]. While sensitization to gentamicin was observed more frequently in the AD group, this difference did not reach statistical significance. Patients with AD are at increased risk of clinically relevant contact allergy to corticosteroids. The pharmaceutical form of the allergen plays a decisive role in test sensitivity, underscoring the need for expanded and formulation-appropriate corticosteroid markers in diagnostics.

P7#1171
OBJECTIVE OPTOMETRY FINDINGS IN DUPILUMAB-ASSOCIATED OCULAR SURFACE DISEASE: A PROSPECTIVE COHORT STUDY

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Dupilumab-associated ocular surface disease (DAOSD) is increasingly recognised as an adverse event in patients with atopic dermatitis (AD). This study aimed to describe the clinical optometry characteristics in patients with DAOSD. Patients commencing dupilumab therapy underwent dry eye assessments prior to and 6-weeks post dupilumab initiation. The assessment protocol included tear breakup time (TBUT), Schirmer's strips, ocular surface staining, and slit-lamp examination. Symptom severity was assessed using a validated questionnaire, Ocular Surface Disease Index (OSDI). Nine patients were included. At 6 weeks, three patients reported DAOSD. Patients with DAOSD report a mean increase in OSDI score of 9.03. In patients without DAOSD, there was a mean OSDI score decrease of 5.545. Two patients with DAOSD demonstrated a decrease in TBUT and Schirmer's tear volume, while another demonstrated an increase. Slit-lamp examination revealed eyelid changes seven of nine patients.

Anterior blepharitis was noted in four patients but this did not correlate with DAOSD. This study characterised the optometry findings of DAOSD and the changes that occur with dupilumab therapy. Within 6 weeks, one-third of patients reported DAOSD, which is consistent with the current real-world literature. DAOSD correlated with an increase in OSDI scores, suggesting that this questionnaire captures symptoms of DAOSD. Objective tear metrics, including TBUT and Schirmer's tests, were not consistent across DAOSD patients. Eyelid or lash abnormalities, including anterior blepharitis, was common in patients on dupilumab, but did not correlate with DAOSD. This study demonstrates that DAOSD is a heterogeneous condition, and future studies are required to characterise the subtypes of DAOSD.

P8. Pediatric AD and Comparative Dermatology

P8#1140

ATOPIC DERMATITIS IN OLDER PATIENTS: WHAT ABOUT METHOTREXATE?

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Until the 1960s–1970s, atopic dermatitis (AD) was primarily considered a pediatric condition. However, AD in older adults now represents a newly recognized clinical subgroup. Our objective was to describe the clinical characteristics of AD in older adults and to assess the efficacy and safety of methotrexate in this population We conducted a prospective longitudinal study over one year, including all patients aged over 60 years with severe AD or resistance to standard topical therapies. Socio-demographic data, clinical forms, SCORAD, and DLQI scores before and after methotrexate treatment were analyzed. Among 34 adult patients with severe, treatment-resistant AD, 11 were aged over 60 and included in this study. The cohort comprised 9 men (81.8%) and 2 women (18.2%), with a mean age of 66.4 years. Pruritus was the predominant symptom, along with erythema, xerosis, and lichenified skin. Lesions were extensive, involving the trunk in 10 patients (90.9%), the flexural areas in 7 patients (63.6%), and the face in 5 patients (45.5%). At baseline, average SCORAD was 50,21 and average DLQI scores was 6,5. After four weeks of methotrexate therapy, six patients (54.5%) demonstrated significant clinical improvement. Atopic dermatitis in older patients remains underdiagnosed despite its rising prevalence. Methotrexate appears to be an effective, safe, and affordable systemic treatment option for elderly patients with severe or refractory AD.

P8#1143

FUNCTION FOCUSED DISEASE CONTROL IN ELDERLY ATOPIC DERMATITIS: MANAGING PRURIGO FORM VARIANTS ACROSS SYSTEMIC THERAPIES

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Atopic dermatitis (AD) in the elderly often differs from the classic flexural pattern, instead presenting as prurigo-form or nummular eczema, frequently without a clear atopic history or accompanying comorbidities, which complicate both diagnosis and treatment. We report two elderly patients with prurigo-form AD who achieved sustained disease control focused on restoring function through different systemic therapies. N/A N/A N/A A 61-year-old man with prurigo-form atopic dermatitis (AD) and intense pruritus interfering daily function and sleep was refractory to cyclosporine and intolerant to methotrexate. He achieved a 72% SCORAD reduction, 80% itch VAS reduction, and 70% DLQI improvement after four weeks of baricitinib 4 mg daily with moisturiser and topical corticosteroid, with stable control at one year. In contrast, a 75-year-old woman with chronic relapsing, prurigo-form AD and hand dermatitis achieved adequate control, such as restored sleep, improved hand function, and only mild, infrequent flares, after receiving creatinine-adjusted low-dose cyclosporine alongside moisturiser and topical therapies. Dosing was tailored: treatment was paused during transient serum creatinine elevations and reinstated upon normalization. Both patients were managed within a single, function-centered treat-to-target framework requiring ≥50% objective improvement plus low-interference itch, sleep restoration, and minimal flares. Close monitoring of organ function enabled individualized therapy while minimizing cumulative immunosuppressive burden. These cases highlight the complexity of prurigo-form AD in older adults and demonstrate that pragmatic, patient-centered targets can achieve sustained systemic control and preserve quality of life.

P9. Atopic Dermatitis in Diverse Skin Types

P9#1036

AN EXPLORATORY STUDY OF QUALITY OF LIFE IN PAEDIATRIC ATOPIC DERMATITIS ACROSS ETHNIC GROUPS

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Atopic dermatitis (AD) significantly impairs patient quality of life (QoL). The influence of ethnicity on the relationship between AD severity and QoL is poorly understood, potentially due to differences in skin barrier function, cultural perceptions, or care practices. To explore how ethnicity affects QoL in children with AD and assess the role of parental concerns. We hypothesised that non-Caucasian children and those with darker skin phototypes would have higher AD severity and greater QoL impairment. A prospective, observational study was conducted with 147 children (median age 2.0 years) at two tertiary Australian paediatric hospitals with different recruitment strategies (one site enrolled only new patients). Data included demographics, Eczema Area and Severity Index (EASI), and QoL scores using the Infants'/Children's Dermatology QoL Index. Analysis included regression and correlation tests. The primary hypothesis was not supported in that ethnicity was not a predictor of disease severity or QoL. The site that recruited only new patients showed a higher disease severity and markedly worse QoL (median 10.0 vs 5.0, $p<0.001$) compared to the mixed patient cohort. Overall, the correlation between EASI and QoL was weaker in children of Asian ($r=0.2$) versus Oceanian ethnicity ($r=0.6$). After adjusting for severity, a higher number of parental worries ($p=0.005$), concerns about food ($p=0.01$) and environmental allergies ($p=0.02$) were associated with worse QoL. While ethnicity does not directly predict AD severity or QoL, it significantly influences the relationship between them, suggesting clinical scoring tools may not fully capture QoL in all ethnic groups. Our findings highlight that

management must extend beyond skin-directed therapy to address caregiver anxiety and cultural context in improving QoL in children with AD.

P9#1072
A DESCRIPTIVE ACCOUNT OF THE CLINICAL CRITERIA OF ATOPIC DERMATITIS IN BLACK CHILDREN IN KWAZULU-NATAL - SOUTH AFRICA

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Atopic dermatitis (AD) is a chronic relapsing skin disorder, with differences in prevalence and genetic backgrounds in different ethnic and racial groups. AD diagnostic criteria have been developed over time and were developed and validated primarily in the global North. Representation of African patients with AD is very poor. To define the clinical features observed in black children with dermatologist diagnosed AD, aged 2 - 17 years attending KEH VIII in Durban, KwaZulu-Natal, South Africa and to assess the findings relative to published research diagnostic criteria. We conducted a cross-sectional study amongst AD children diagnosed clinically by a dermatologist, attending the dermatology clinic. We prospectively recruited 128 Black Africans, between the ages 2 and 17 years. A data collection questionnaire developed from 4 commonly used AD diagnostic research tools was used to document the clinical features of AD by dermatology doctors. Pruritus, chronic relapsing eczema, course influenced by season, itch when sweating, Denny-Morgan folds and early age of onset < than 2 years were each seen in greater than 80% of children. Extensor eczema seen in 63.3% (upper limb) and 60.2% (lower limbs) of cases. Perifollicular accentuations seen in 75% cases.Lichenification, scaling, xerosis and palmar hyperlinearity in more than 60% cases. The Hanifin and Rajka diagnostic criteria was most adapted for the diagnosis of AD in our cohort, confirming positive AD cases in 85,2% of patients. The results were consistent with the result from other African countries, where clinical features such as extensor eczema, lichenification, Denny-Morgan folds, perifollicular accentuation are more commonly observed. Further studies are required to confirm ethnic differences in features of AD so that we can validate and clarify features of AD that are peculiar to Africans.

P9#1085
THE LEBANESE REGISTRY FOR ATOPIC DERMATITIS: A NATIONAL INITIATIVE IN PARTNERSHIP WITH THE GLOBAL ATOPIC DERMATITIS ATLAS

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Understanding of atopic dermatitis (AD) is limited by data gaps globally. To address this, the Global Atopic Dermatitis Atlas (GADA) launched a free platform for standardized registry data. In collaboration with GADA, the Lebanese Registry for Atopic Dermatitis (LebRAD) – led by the Lebanese American University and supported by the Lebanese Dermatology Society – is the first national effort to generate AD data in Lebanon. LebRAD aims to characterize the AD patient population in Lebanon, including phenotype prevalence, severity, disease progression, quality of life impact, and treatment outcomes. It also supports the design, review, and piloting of the GADA registry platform to enable standardized data entry for national registries. LebRAD is a prospective, observational registry collecting data from six university hospitals and private clinics across Lebanon. Participants are followed longitudinally timepoints at baseline and every six months over an 18-month period. Eligible participants include patients of all ages with a physician diagnosis of AD according to the American Academy of Dermatology diagnostic criteria. To date, 33 patients have been enrolled (58% male, 60% pediatric). The most common AD phenotype is flexural (n=18, 55%). Mean EASI score is 5.88 (SD 4.58, range: 0.2–16.1). Among adults, the mean DLQI is 6.77 (SD 3.61), indicating a moderate impact on quality of life. Pediatric patients reported a mean CDLQI of 4.33 (SD 1.15) and IDQOL of 3.93 (SD 2.89), reflecting a mild effect. LebRAD shows the feasibility of standardized, long-term data collection in a region with limited epidemiological data. Early results reveal common AD phenotypes and their impact on quality of life, forming a basis for better understanding and care in Lebanon. Expanding to more sites will strengthen regional and global insights into AD.

P9#1108
IMPROVING PEDIATRIC ATOPIC DERMATITIS CARE WITH ADAPTED THERAPEUTIC PATIENT EDUCATION

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Atopic dermatitis (AD) affects over 15% of children worldwide and significantly impacts patients and families' quality of life. While therapeutic patient education (TPE) improves adherence and outcomes, gaps remain in addressing the needs of various age and cultural groups. To develop a culturally and age adapted TPE program for children with AD and their families and assess its impact on patient-reported outcomes (PROs). We collected baseline data via pre-training questionnaires from children with moderate-to-severe AD referred to a tertiary dermatology clinic. PROs were assessed using the Patient-Oriented Eczema Measure (POEM) and the Children's Dermatology Life Quality Index (CDLQI). The TPE program consisted of a 60-minute session with age-adapted, culturally sensitive content and interaction with healthcare professionals, delivered separately to parents of children <6, children aged 6–12, and adolescents ≥13. Of 100 patients enrolled, 34% were under 6 years, 36% were

aged 6–12, and 30% were ≥13 years. Of these, 68 completed the pre-training and 40 the post-training questionnaires. The cohort was 56% male and predominantly Caucasian (59%), followed by Asian (19%), mixed ethnicities (7%), and Black (7%). Most had a family history of AD (76%) and disease duration >2 years (74%). POEM scores improved from 9.8 to 6.8 post-training, reflecting a clinically meaningful change (≥3 points). Subgroup analyses showed significant POEM improvements among older children (12.2 to 8.8) and those with skin of color (9.3 to 4.9). CDLQI scores improved modestly from 7.3 to 6.5. This tailored TPE program improved PROs, particularly POEM scores in older children and those with skin of color. This suggests its potential in AD improvement and management.

P10. Topical Treatment and Phototherapy

P10#1019

OPTIMIZING TOPICAL THERAPY IN THE NETHERLANDS: THE DUTCH NATIONAL ATOPIC DERMATITIS PROJECT

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In the Netherlands atopic dermatitis (AD) has a prevalence of ±15% in young children and 2.5% in adults. About 400,000 patients with AD received care in 2022, of which ±30,000 by or from dermatologists. In 2022 the Dutch National Health Care Institute (NHCI) published a report to improve care for people with AD. Among the identified improvement areas were adequate topical therapy, and uniformity regarding patient information provided by all stakeholders involved. The objective of this project is to address these areas of improvement, with the overall aims to enhance self management, and to reduce both unnecessary disease burden and referrals to secondary care. The National Atopic Dermatitis Project (NADP) was initiated in 2020, comprising all stakeholders: dermatologists, paediatricians, allergists, primary care physicians, public health youth physicians, nurses, pharmacists, dermal therapists, and patients: all mandated by their societies. Together they committed to develop uniform and comprehensible information materials for patients, and accredited e-learnings for healthcare professionals. Various materials were developed for patients/caregivers: an AD guide, application schedules, fingertip unit instructions, written action plans, animations, a game for 6-11 years, and videos by patients. All materials were tested for comprehensibility. Four comprehensive e-learnings were developed for healthcare professionals, all accredited and accessible at minimal costs. The NADP managed to develop materials for patients/caregivers and professionals, with unanimous consensus, that were launched nationally March 27th 2025 through the website www.eczeemwijzer.nl. If the objectives are indeed being met, this would be evident from the NHCI research to be repeated in 2026.

P10#1063

TACROLIMUS-LOADED CHITOSAN-BASED NANOPARTICLES AS AN EFFICIENT TOPICAL THERAPEUTIC FOR THE EFFECTIVE TREATMENT OF ATOPIC DERMATITIS SYMPTOMS

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Atopic dermatitis (AD) is a chronic cutaneous disease with a complex underlying mechanism, and it cannot be completely cured. Thus, most treatment strategies for AD aim at relieving the symptoms. Although corticosteroids are topically applied to alleviate AD, adverse side effects frequently lead to the withdrawal of AD therapy. Tacrolimus (TAC), a calcineurin inhibitor, has been used to treat AD, but its high molecular weight and insolubility in water hinder its skin permeability. Herein, we developed and optimized TAC-loaded chitosan-based nanoparticles (TAC@CNPs) to improve the skin permeability of TAC by breaking the tight junctions in the skin. The prepared nanoparticles were highly loadable and efficient and exhibited appropriate characteristics for percutaneous drug delivery. TAC@CNP was stable for 4 weeks under physiological conditions. CNP released TAC in a controlled manner, with enhanced skin penetration observed. In vitro experiments showed that CNP was non-toxic to keratinocyte (HaCaT) cells, and TAC@CNP dispersed in an aqueous solution was as anti-proliferative as TAC solubilized in a good organic solvent. Importantly, an in vivo AD mouse model revealed that topical TAC@CNP containing ~1/10 of the dose of TAC found in commercially used Protopic® Ointment exhibited similar anti-inflammatory activity to that of the commercial product. TAC@CNP represents a potential therapeutic strategy for the management of AD

P10#1087

TOPICAL CORTICOSTEROID PHOBIA IN A COHORT OF CAREGIVERS OF CHILDREN WITH MILD-TO-MODERATE ATOPIC DERMATITIS

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Topical corticosteroid (TCS) phobia can hinder treatment adherence in atopic dermatitis (AD). In children, understanding caregiver perceptions about TCS helps to optimise therapeutic outcomes. We aimed to evaluate the severity and change in caregiver TCS phobia over 12 weeks following structured eczema education. This study-within-a-trial utilised preliminary data from a 12-week double-blind, placebo-controlled randomised trial of the probiotic L. paracasei in children aged 3 months to <3 years with AD. All participants received TCS therapy and caregivers received structured eczema education. Caregivers completed the 12-item Topical Corticosteroid Phobia (TOPICOP) questionnaire at baseline and week 12. TOPICOP assesses TCS phobia and is divided into two domains, one assessing worries (6 items) and the other assessing mistaken beliefs (6 items) about TCS. TOPICOP scores were expressed as a percentage of the maximum possible score (36). Twelve participants had complete TOPICOP data. Median TOPICOP score decreased from baseline 33% (range 3-67%) to 24% (range 0-47%) at week 12. Scores decreased in 6 caregivers, were unchanged in 2 and increased in 4. Item-level analysis showed total scores decreased from 138 to 101, with 8 individual item totals decreasing and 4 remaining unchanged. The greatest reductions were observed in "belief" domain items concerning skin damage and long-term safety. In contrast, 3 of the 6 "worry" domain items showed no change. There were no correlations between baseline TOPICOP and baseline EASI scores (Rs=0.507, p=0.09) or age (Rs=-0.244, p=0.44). Caregiver beliefs about TCS use in paediatric AD decreased with structured education but was not correlated with disease severity or age of child. Persistent caregiver worries suggest tailored, ongoing interventions are required.

P10#1133

BENVITIMOD AMELIORATES MC903-INDUCED MOUSE ATOPIC DERMATITIS-LIKE LESIONS AND REGULATES SKIN BARRIER PROTEINS

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Atopic dermatitis (AD) is a chronic inflammatory skin disease. The pathogenesis of AD includes genetic susceptibility, skin barrier dysfunction and type two inflammation. Benvitimod is an aryl hydrocarbon receptor (AHR) modulator and has been approved for the treatment of psoriasis. Its use in atopic dermatitis is under investigation. To study the effects of benvitimod on mouse AD model. To study the effects of benvitimod on keratinocyte expression of skin barrier molecules and on regulation of AhR-related molecules.To clarify the specific regulatory mechanisms of benvitimod on different cell types. An animal AD model was established in BALB/c mice by application of MC903 on mouse skin. Benvitimod 1% in ethanol was applied to mouse skin and the effects were evaluated. Th2 cytokines and skin barrier molecules mRNA and protein expression in lesions were measured by qPCR and Western blot respectively. Skin tissues were dissociated into single-cell suspensions for single-cell RNA sequencing (scRNA-seq). Treatment with benvitimod significantly improved skin lesions, reduced scratching frequency and downregulated TEWL. Benvitimod significantly downregulated the expressions of Th2 cytokines and serum IgE level. Benvitimod upregulated the expression of skin barrier molecules in mouse skin. ScRNA-seq results revealed benvitimod downregulated the proportions of mast cells and T cells in AD lesions. Benvitimod reduced Th2 cell proportions while increasing Treg cell proportions in AD lesions. Benvitimod significantly improved MC903-induced mouse AD-like lesions. It inhibited serum IgE level and upregulated skin barrier molecules. Benvitimod treatment reduced mast cell and T cells and regulated keratinocyte differentiation and skin barrier pathways. Benvitimod downregulated Th2 cells while upregulating Treg cells in AD lesions of mice.

P11. Mechanisms of Disease and Models

P11#1070

REGULATORY ROLE OF IL-1R2 IN EPIDERMAL INFLAMMATION IN ATOPIC DERMATITIS

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Atopic dermatitis (AD) is a chronic inflammatory skin disease marked by barrier dysfunction and immune dysregulation. Recent studies highlight the role of the interleukin-1 (IL-1) family in AD. IL-1 receptor type 2 (IL-1R2) is a decoy receptor that binds IL-1α/β and prevents their engagement with the signaling receptor IL-1R1. To investigate the regulatory role of IL-1R2 within keratinocytes in the context of atopic dermatitis. We integrated single-cell RNA-seq of AD lesional skin, skin biopsies, genetically modified mouse models, 3D human skin equivalents, and n/TERT keratinocyte cultures to assess IL-1R2 expression and function. IL-1R2 expression was specifically upregulated in keratinocytes from AD lesional skin, as revealed by single-cell transcriptomic analysis. Immunohistochemistry of AD lesional skin confirmed that IL-1R2 expression is specifically upregulated in keratinocytes. In 3D human skin models, stimulation with IL-4 and IL-13 significantly increased IL-1R2 expression, suggesting that Th2 cytokines may promote its induction. Overexpression of IL-1R2 in keratinocytes suppressed IL-1β-induced proinflammatory signaling, whereas 3D models constructed from IL1R2-deficient keratinocytes exhibited impaired epidermal differentiation, with a notably disrupted stratum corneum. In vivo, Il1r2-knockout mice developed exacerbated AD-like skin inflammation with increased infiltration of neutrophils. IL-1R2 acts as a key negative regulator of IL-1-driven inflammation in AD and may serve as a therapeutic target for restoring epidermal immune balance.

P11#1097

THE GSDMD-MEDIATED KERATINOCYTES PYROPTOSIS REGULATES T CELL HOMEOSTASIS THROUGH HMGB1/NF-KB PATHWAY TO PROMOTE ATOPIC DERMATITIS

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Recently, pyroptosis, a novel type of programmed cell death, has gradually attracted attention in atopic dermatitis (AD). This study is to further study the specific mechanism of GSDMD-mediated focal death regulating T cell homeostasis through HMGB1/NF-κB pathway. The HaCaT cells were administrated with TNF-α (20 ng/mL) and hexamethyleneimine (10 μg/mL) for 18 h to induce pyroptosis. Then the pyroptosis-like HaCaT cells and AD model C57BL/6 mice were supplied with si-GSDMD, oe-GSDMD, HMGB1 inhibitor glycyrrhizic acid to explore the effect of GSDMD/HMGB1 pathway. The CD4+ T cells from AD individuals were separated to co-culture with HaCaT cells to investigate the T cell activation state. Western blot was to measure the protein levels. IL-4, IL-18, IL-1β, IgE, HMGB1 amounts were analyzed by ELISA assay. The flow cytometry was to detect the surface activation marker CD69 on the T cells in the co-culture system of HaCaT cells and CD4+ T cells. The apoptosis of HaCaT cells, the NLRP3, caspase-1, GSDMD, GSDMD-N, NF-κB, IL-1β, IL-18, IL-4, IL-17 levels were evidently increased in the model group. These effects would be enhanced by overexpressing GSDMD, restrained by inhibiting HMGB1. Compared with the control group in vivo, the number of infiltrated inflammatory cells were larger in the model group, which would be smaller in the model + si-GSDMD and model + HMGB1 inhibitors groups. Th2, Th17, Treg cells were activated in the model group than the control group, the inhibition of GSDMD along with HMGB1 inhibitors could restrain the activate Th2, Th17, Treg cells in the model group, when compared with the model + oe-GSDMD group, Th2, Th17, Treg cells in the model + oe-GSDMD + HMGB1 inhibitors were significantly activation-inhibited. GSDMD could activate HMGB1/NF-κB pathway to mediate keratinocytes pyroptosis and regulate T cell homeostasis to promote AD development.

P12. Environment and Atopic Dermatitis

P12#1008

THE ASSOCIATION OF ATOPIC MULTIMORBIDITY WITH CHILDHOOD CAT EXPOSURE, FARM LIVING, AND RURAL RESIDENCE: RESULTS OF THE LIFELINES COHORT STUDY

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While the hygiene hypothesis suggests reduced exposure may increase atopic disease risk, higher exposure may worsen symptoms and promote progression. To investigate the association between childhood environmental exposures and atopic multimorbidity, defined as atopic dermatitis (AD) accompanied by at least two atopic comorbidities, including asthma, food allergy (FA), or allergic rhinitis (AR). Data on self-reported physician-diagnosed AD was collected between February - May 2020 via a digital questionnaire from the Lifelines Cohort Study (N = 167,729). Adults retrospectively reported childhood environmental exposures during baseline (2006-2013), including birthweight, gestational age, delivery mode, breastfeeding, tobacco smoke exposure, living conditions (farm-living before age 5; rural/urban residence), and pet exposure (dog and/or cat) before age 16. Pet exposure was assessed via ownership, type, and age of exposure. Asthma, AR, and FA were also collected (2006-2013). Participants were classified as without atopic disease or with atopic multimorbidity. Associations were examined using logistic regression, with each individual environmental exposure adjusted for age and sex. Of 28,791 included participants, 27,939 (97.0%) had no atopic disease, and 852 (3.0%) had atopic multimorbidity. Pet exposure ever before age 16 (odds ratio, 95% confidence interval: 0.76, 0.66–0.88), especially cat ownership only (0.66, 0.54–0.81), farm-living before age 5 (0.49, 0.38–0.63), or rural residence (0.75, 0.65–0.87), were negatively associated with atopic multimorbidity. Childhood exposure to cats, farms, or rural areas was negatively associated with atopic multimorbidity. Longitudinal studies are needed to explore causality and inform public health strategies, such as promoting childhood pets interactions and outdoor play.

P12#1028
IMPACT OF SMOKING ON THE CUTANEOUS INFLAMMATORY RESPONSE IN ATOPIC DERMATITIS

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Atopic dermatitis (AD) is a chronic inflammatory and itching skin disease that mainly affects children and significantly impacts quality of life. In Madagascar, its prevalence is estimated at 5.6% in children and 0.5% in adults. Smoking, a well-known risk factor in many inflammatory conditions, may influence the severity of AD. This study aimed to assess the impact of active and passive smoking on AD severity by comparing clinical forms between exposed and non-exposed patients. A retrospective, case-control study was conducted from January 2020 to November 2024 at Joseph Raseta Befelatanana Hospital. Fifty-three patients with AD exposed to tobacco smoke was compared to 53 non-exposed, age- and sex-matched controls. Variables analyzed included personal history of atopy, clinical symptoms, disease severity (SCORAD score), and the impact of tobacco exposure. Fifty-three patients were exposed to tobacco; the mean age was 9.82 years. Of these, 88.7% were passive smokers, mostly exposed at home. Personal atopy was more common in the exposed group (71.7% vs. 41.5%). Pruritus was more frequently reported among exposed patients, with a mean P-NRS score of 3.2 compared to 2.49 in non-exposed patients. Moderate AD was more prevalent among exposed patients (56.6% vs. 28.3%), while 66% of non-exposed patients had mild AD. Quality of life was more impaired in the exposed group, with over half reporting symptom worsening due to tobacco exposure. Tobacco exposure, even passive, appears to be associated with more severe AD. Possible mechanisms include disruption of the skin barrier and enhancement of the inflammatory response. The low level of awareness among patients about this link highlights a need for better health education. Our study demonstrated an association between tobacco exposure and increased severity of atopic dermatitis. Preventing tobacco exposure particularly passive smoking should be an integral part of managing patients with AD, with a focus on educating families about environmental tobacco risks.

P12#1047
ALLERGIC CONTACT DERMATITIS MASQUERADING RECALCITRANT ATOPIC DERMATITIS: A CASE REPORT

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Atopic dermatitis (AD) is a chronic inflammatory dermatosis presented with relapsing eczematous lesions, xerosis, and pruritus affecting flexural areas. The mechanism is complex involving genetics, immunity, and environmental factors. The diagnosis was established using the Hanifin-Rajka criteria, with severity graded using the SCORing AD (SCORAD) tools. Treatments consisted of five pillars, which include trigger avoidance, skin barrier optimization, education, preventing the itch-scratch cycle, and flare control. Allergic contact dermatitis (ACD) is type-4 hypersensitivity mediated by T cells that can be concomitant with AD. This report presents an interesting case that highlights the complex relationship between AD and ACD to foster comprehensive diagnosis in AD. This report highlights a 40-year-old man with recurrent AD lesions on the face, chest, back, arms, and thighs since adolescence, which worsened in the last 3 years. Skin prick test of house dust mites and cockroaches were positive. Despite complying with standard AD treatment including systemic therapy of cyclosporine, methotrexate, and occasional doses of prednisone, topical steroids and crisaborole, facial lesions thickened and pruritus worsened (SCORAD 10.9 to 39.85). Patch testing was revealed ACD to Nickel sulfate 5%, found in daily-used facial masks and household items. This case underlines ACD's role as consequence and cause in AD due to increased skin permeability attributed to compromised skin barrier and immune pathway overlaps in chronic AD. ACD should be suspected in patients with recalcitrant AD, prompting comprehensive diagnostic examinations. Moreover, patch testing as the gold standard for diagnosing ACD should be considered to refine individualized, allergen-avoidant strategy to improve patient outcomes.

P12#1059
ASSOCIATED FACTORS TO THE SEVERITY OF ATOPIC DERMATITIS AMONG CHILDREN OF 6 TO 10 YEARS IN URBAN AND RURAL AREA

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Atopic dermatitis (AD) is a chronic inflammatory skin condition that arises from a complex interplay of genetic, immunologic, and environmental factors. The incidence has increased over the past decades. In Africa, the incidence is increasing and dermatologists are facing many challenges, including socio-cultural behaviors, drugs and test availability. Understanding the associated factors for the disease severity will help improve management. This study is aimed at investigating the factors associated with the severity of AD among children in rural and urban areas. A cross-sectional study was carried out in two specialized health centers in both urban and rural areas respectively, the Bamako Hospital of Dermatology and the Regional Referral Hospital of Koulikoro. All outpatients aged between 6 and 10 consulting in these centers were screened for AD using the UK Working criteria. SCORAD was used to assess the disease severity. In total, 42 patients were included in the study (9 in rural area and 33 in urban area). The mean age was 8.3 years (two and ten years) with a sex ratio of 0.44. Of the 14 patients with a familial history, 5 had asthma. In rural areas, clinical manifestations were dominated by erythematous and erosive lesions, whereas in urban areas, clinical manifestations were dominated by erythematous and vesiculo-bullous lesions. Severe AD was observed in 15 patients (35.5%), moderate in 23(54.8%) and mild in 4 (9.8%). The disease started in 10 patients before the age of 6 months and this was the only associated factor for the severity (P = 0,002). The following factors were not associated with the disease severity: contact with pets, frequent baths and using synthetic washcloths, herbal medicine use, route of delivery and sinusitis. Early onset of AD was associated with the disease severity in our study.

P12#1131

ECOLOGIC PATTERNS OF SEVERE ATOPIC DERMATITIS IN FRANCE: WHAT REGIONAL DATA REVEAL

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Severe atopic dermatitis (AD) imposes a considerable burden. While environmental and behavioral exposures may influence regional disease patterns, nationwide data in France are limited. To estimate the incidence of severe AD in French adults and assess its regional association with water hardness, smoking prevalence, and latitude. Using the French National Health Data System (2017–2023), we conducted a nationwide ecological study including adults (≥18 y) with dermatologist-confirmed AD receiving systemic therapy. Regional incidence rates were linked to water hardness (°f), smoking prevalence (%), and mean regional latitude (°). Crude incidence varied twofold across 13 regions (1.5–3.0/10,000). Highest rates were observed in northern areas (e.g., Hauts-de-France, Grand Est), where water was harder and smoking more prevalent. Scatterplots and log-normal models showed consistent but non-significant positive associations: water hardness (RR 1.01; p=0.416), smoking (RR 1.05; p=0.102), latitude (RR 1.02; p=0.405). Among all exposures, smoking prevalence demonstrated the most pronounced trend, approaching the threshold for statistical significance. These findings were supported by coherent visual gradients and model outputs across all regions. Although estimates lacked statistical precision, the consistency in effect direction reinforces a potential ecological contribution of these exposures to severe AD burden. Regional variation in severe AD appears aligned with harder water, higher smoking rates, and northern latitude. Though exploratory, these findings support prior hypotheses and underscore the need for individual-level studies to clarify causality and inform targeted prevention strategies.

P12#1164

THE URBAN-RURAL GRADIENT OF ATOPIC DERMATITIS: AN EXPLORATION OF THE GLOBAL EPIDEMIOLOGY AND HEALTH DETERMINANTS

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Atopic dermatitis (AD) is one of the most common chronic inflammatory skin disorders affecting approximately 2.6% of the global population. It contributes substantially to individual and societal burdens due to chronicity, and associated morbidity. Urban populations are significantly more likely to develop AD than rural counterparts, although rapid urbanisation is narrowing this gap. Epidemiological disparities between urban and rural populations exist due to distinct environmental, socioeconomic, and healthcare-related factors. However, unique challenges in rural populations, including healthcare access, and socioeconomic status, may influence the experience of living with AD. This narrative review synthesises global epidemiological data comparing urban and rural AD populations, highlighting disparities among key determinants. We conducted a narrative review using Medline, Embase, and PubMed. Eligible studies included those reporting on rural populations in comparison to urban populations with AD. Environmental determinants including pollution, allergens, temperature variations, and microbial exposures significantly impact AD severity, with urban populations experiencing a notably elevated risk. However, social determinants such as socioeconomic status, health literacy, and psychological wellbeing may impact the journey of the individual and their family, particularly in rural areas where limited healthcare access and financial burdens hinder disease management. There is an urban-rural gradient disparity, with urban populations facing a significant higher prevalence of AD. However, the psychosocial burden of AD in rural areas remains unclear. Future research should prioritise understanding the psychosocial impacts, particularly within underserved rural populations.

P13. Multispecialty Approach

P13#1031

TOWARDS COLLABORATIVE CONSULTATIONS IN ATOPIC DERMATITIS: A CONTROLLED TRIAL ON THE IMPACT OF CONVERSATION CARDS AND CONTACT NURSES

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Atopic dermatitis (AD) requires ongoing self-management and care. Integrating agenda-setting into consultations using Conversation Cards (CCs) may enhance self-management. A set of CCs has been developed for patients with AD, empowering them to actively contribute to the focus of the consultation and receive tailored support. To investigate whether a patient-centred consultation using CCs combined with two designated contact nurses will affect the patient's well-being, disease severity, and self-management. A non-randomised controlled trial involving 200 patients with AD of all ages and severities. The control group received standard care, while the intervention group utilised CCs in all consultations, and patients were assigned two designated

contact nurses. One contact nurse, alongside a physician, participated in every consultation. The primary outcome was the Well-being Index (WHO-5). The secondary outcomes included different measurements of aspects of self-management: quality of life (IDQoL/CDLQI/DLQI), symptom burden (POEM, EASI, NRS ITCH and NRS sleep), patient activation measures (PAM), and patients' assessment of collaboration with healthcare professionals (CollaboRATE). Assessments were conducted at baseline, 6, and 12 months. Preliminary data (baseline to 6 months) show that the intervention group (n=74) had improved WHO-5 scores by 6.2 points more than the control group (n=61) (P=0.04). For only patients > 15 years, the WHO-5 increase was 7.37 points (P=0.03). Additionally, patients > 15 years had a higher mean increase in the ColaboRATE score of 6.13 points (P=0.00). Involvement of CCs and contact nurses enhances patient well-being and collaborative care, especially in patients > 15 years.

P14. Technology and AD

P14#1004

USE OF ARTIFICIAL INTELLIGENCE TO ENHANCE MENTAL HEALTH SCREENING IN CHRONIC ATOPIC DERMATITIS IN CHILDREN AND ADOLESCENTS

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Atopic dermatitis (AD) can cause psychological complications such as anxiety and depression. Early detection of mental health concerns in children and adolescents is essential but challenging. This pilot study evaluates the usability and validity of two artificial intelligence (AI) tools to enhance mental health screening for paediatric patients with chronic AD. Twenty-six patients with AD (aged 8–18 years) were recruited from the multidisciplinary dermatology-psychology clinic (n=7) and general dermatology clinic (n=19). All completed the Depression Anxiety Stress Scale-Youth (DASS-Y) for mental health risk stratification. Based on DASS-Y scores, 4 patients from the general clinic were at increased risk and were combined with the 7 from the multidisciplinary clinic to form the patient group (n=11). The remaining 15 formed the control group. All participants underwent two AI-based emotional assessments: SenseCare, a clinician-administered real-time webcam emotion analysis during consultations, and SenseWell, a post-consultation self-administered platform incorporating facial emotion analysis with responses to 2 standardised emotional well-being questions. AI technicians interpreting the results were blinded to group allocation. Both tools were well-received, with SenseWell demonstrating superior usability and adaptability for asynchronous use. All consultations lasted at least 5 minutes. Emotion analysis durations ranged from 16.2-91.4 seconds using SenseWell and 1.1-435.6 seconds using SenseCare. SenseWell detected significant differences in mean emotional valence between patient and control groups when emotion data exceeded 30 seconds in duration (p=0.008). AI-based emotion analysis, particularly self-administered tools, can potentially augment mental health screening in children and adolescents with AD.

P14#1035

TOPICAL STEROID WITHDRAWAL: PERSPECTIVES OF AUSTRALIAN DERMATOLOGISTS

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Topical steroid withdrawal (TSW) is a term increasingly used by patients to describe a range of symptoms following cessation of topical corticosteroids. While public concern about TSW has grown, particularly through social media, there is currently no agreed-upon diagnostic definition within the dermatological community. Our study aimed to identify Australian dermatologists' perspectives on topical steroid withdrawal and provide recommendations for future approaches. We conducted an online survey distributed by the Australasian College of Dermatologists via email to all Dermatology fellows and trainees, from September to November 2024. Survey questions were informed by the literature on TSW, conference materials, expert input and consultation with the college. The term 'topical steroid withdrawal' was used in preference to other terms such as 'red skin syndrome' or 'topical steroid addiction' as this is the term most widely cited within the literature. There were seventy completed survey responses. Most respondents were dermatology fellows, and sixty percent had a particular interest in atopic dermatitis. Fifty-nine percent of respondents reported that they do not consider TSW a clinical entity. Most respondents (95%) thought the underlying diagnosis was a relapse of atopic dermatitis or periorificial dermatitis (24%). Ninety-seven percent of respondents reported that patients became aware of the term TSW through social media. Our survey identified differing perspectives on TSW among dermatology fellows and trainees - many do not diagnose it, and most patients gain information via social media. This emphasises the importance of developing a unifying stance on TSW by dermatologists, to help prevent the spread of misinformation from non-medical sources.

P14#1057

IMPROVING PEDIATRIC DERMATOLOGICAL CARE: AN EDUCATIONAL VIDEO THAT IMPROVES PATIENT KNOWLEDGE AND CONFIDENCE REGARDING ECZEMA

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While resources exist for caregivers, few tools directly educate and support children living with atopic dermatitis (AD). A five-minute animated video, Living with Eczema, was developed to address this gap as previously described (1) To assess the benefits and ease of use of Living with Eczema, a child-directed educational video on eczema knowledge, confidence, and quality of life in pediatric patients with AD. An ethics exemption was obtained from the CHREB at the University of Calgary as a quality improvement initiative. Ten children aged 6–12 years with moderate-to-severe AD were recruited from a pediatric dermatology clinic. Participants completed pre- and post-video assessments: eczema knowledge, confidence, Patient-Oriented

Eczema Measure, and the Children's Dermatology Life Quality Index (CDLQI). Ease of implementation was assessed by clinic staff. Post-video intervention, participants showed increased eczema knowledge and confidence scores. CDLQI and POEM scores also showed a trend toward reduced disease impact. Quantitative results will be presented. Implementation of the video was easy for the healthcare team. Viewing a short, animated video improved eczema knowledge and self-confidence among pediatric patients assessed immediately after the intervention. Though the long term effects were not assessed in this QI initiative, the ease of implementation and potential benefits support adoption of this video as an educational tool for 6-12yo children with AD.

P14#1064

LONGITUDINAL LASER- SPECKLE CONTRAST IMAGING OF SKIN MICROCIRCULATION DYNAMICS IN ATOPIC DERMATITIS DURING ANTI-INFLAMMATORY AND EMOLLIENT TREATMENT

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Inflammation marks one of the pathophysiological pillars of eczema development. Inflammatory responses in eczema frequently result in vascular responses, including hyperaemia and increased vascular permeability. Current assessment of inflammation in atopic dermatitis is mainly subject to highly validated but subjective and investigator-dependent clinical scoring systems. Objective measurement of inflammation in eczema can be expensive, labour-intensive and susceptible to disturbance and is not routinely performed in clinical trials. Our study aimed to evaluate the capability of Laser-speckle Contrast Imaging (LSCI) in monitoring cutaneous microcirculatory changes as a surrogate for cutaneous inflammation in atopic eczema. In our study 30 adult volunteers with moderate atopic dermatitis were monitored during topical anti-inflammatory and subsequent basic treatment for 12 weeks. We evaluated LSCI compared to established skin physiological measurements to objectively quantify treatment responses, remission and relapse in atopic dermatitis patients. Throughout our study, skin barrier function, quantified through TEWL and microcirculatory inflammatory hyperaemia, quantified through laser-speckle FLUX, correlated significantly in all disease severities and patients, reflecting the physiological coupling of inflammatory hyperaemia and barrier function in atopic dermatitis. Our study proposes a novel, objective, cost-effective and non-invasive approach towards monitoring inflammation through microvascular perfusion measured by laser speckle contrast imaging in atopic dermatitis. We could show that the barrier function directly correlates with microcirculatory changes at various disease severities. LSCI is a promising approach to monitoring treatment responses and disease activity in atopic dermatitis.

P14#1115

MULTI-OMIC SPATIAL PROFILING OF ATOPIC ECZEMA SKIN REVEALS COMMON TRANSCRIPTIONAL AND PROTEOMIC IMMUNE TARGETS ALTERED WITH INHIBITING INTERLEUKIN 4 AND INTERLEUKIN 13 SIGNALING

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Inhibiting IL4 and IL13 signaling reduces the severity of atopic dermatitis (AD) disease and suppresses T2 inflammation. There remains a need to understand differences in the regulation of inflammation between the epidermis and dermis to inhibiting IL4 and IL13 signaling. To examine spatial transcriptional (gene expression) and translational (protein abundance) effects of inhibiting-IL4 and IL-13 signaling in individuals with AD and to compare these changes to healthy skin. GeoMx™ Digital Spatial Profiling of 87-proteins and 1,812 genes from epidermal and dermal regions of skin biopsies collected as part of a phase 4, open-label, exploratory study was undertaken. 31 adults with moderate-to-severe AD receiving dupilumab 300 mg every 2 weeks for 16 weeks provided skin biopsies pre-treatment and at week 16 and 10 healthy controls provided a single skin biopsy. A total of 1,189 genes and 41 proteins in the AD patients were above the limit of detection. In protein and RNA, significant treatment associated changes at week 16 in the dermis were associated with angiogenesis (increased CD34) and cellular responses (decrease in CD11c / ITGAX). In the epidermis, there was a significant reduction in CD44 abundance with treatment. Gene sets in notch signaling, interferon signaling, and cell cycle pathways were significantly reduced with treatment in the epidermis, while gene sets associated with IL-4 and IL-13 signaling, cytokine and chemokine signaling were significantly reduced with treatment in the dermis. Treatment-related changes resulted in post-treatment samples exhibiting similar transcriptional and protein profiles to healthy tissue. Blocking IL4 and IL13 signaling exerts differential effects in the dermis and epidermis of AD skin and appears to normalise inflammatory pathways.

P15. Other

P15#1046

BEYOND ATOPIC DERMATITIS: UNMASKING RARE MIMICKERS

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Atopic dermatitis (AD) is a common diagnosis for eczematous presentations. However, a subset of patients presents with severe, atypical, or treatment-refractory "eczema" that signals an underlying rare disorder. This presentation aims to enhance clinicians' ability to differentiate classic AD from its rare mimickers through illustrative case studies, highlighting key clinical, laboratory, and genetic red flags. We present a series of cases which mimic atopic dermatitis encountered in our tertiary referral clinic: such as Hyper-IgE Syndrome, Netherton Syndrome, multiple carboxylase deficiency,dermatosis of kwashiorkor. Early disease onset combined with a poor response to conventional therapies necessitates consideration of alternative diagnoses beyond atopic dermatitis. This case series underscores the critical importance of recognizing clinical red flags and utilizing targeted investigations

(e.g., IgE levels, hair microscopy, metabolic panels, nutritional assessment, genetic testing) to identify underlying primary immunodeficiencies (HIES), genodermatoses (Netherton), or metabolic/nutritional deficiencies (Biotin, PEM). Early and accurate diagnosis is paramount for initiating disease-specific management, improving outcomes, and providing appropriate genetic counseling.

P15#1077
ANALYSIS OF CORRELATION BETWEEN ECP, IGE, ALLERGIC HYPERSENSITIVITY AND ECZEMA SEVERITY IN ATOPIC DERMATITIS AND NON-ATOPIC ECZEMA

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Various biomarkers are being explored as predictors of severity, treatment response, and prognosis in eczema, including atopic dermatitis (AD). This study aimed to identify the biomarker characteristics of AD, Allergic Contact Dermatitis (ACD), and Nummular Eczema (NE) by studying allergy tests and their correlation with eczema severity. The study included 130 patients with AD (extrinsic AD; 90 patients and intrinsic AD; 40 patients) and 65 patients with non-atopic eczema (NE; 41 patients and ACD; 24 patients). Eczema severity was assessed using the Eczema Area and Severity Index (EASI). Immunological markers quantified included total Immunoglobulin E (IgE), Eosinophil Cationic Protein (ECP)), and Multiple Allergen Simultaneous Test (MAST) results (0 to 6+). The correlation between EASI scores and levels of total IgE, ECP, and the degree of sensitization by MAST results was analyzed. In extrinsic AD, a statistically significant positive correlation was observed between the level of sensitization and EASI scores ($r = 0.386$, $p<0.01$). Additionally, a positive correlation was noted between ECP levels and EASI scores ($r = 0.229$, $p<0.05$) in extrinsic AD. In NE, a positive correlation was found between ECP levels and EASI scores ($r = 0.316$, $p<0.05$). For intrinsic AD and ACD, no statistically significant correlations were found between ECP levels, total IgE, the level of sensitization, and EASI scores. This study reveals distinct immunological mechanisms in extrinsic AD and NE, with specific markers correlating with disease severity. In extrinsic AD, both total IgE and the level of sensitization were directly proportional to disease severity. In NE, eczema severity showed a positive correlation with ECP, highlighting the role of eosinophilic inflammation in its pathogenesis.

P15#1103
WHEN SCABIES MIMICS ATOPIC DERMATITIS IN TWINS: DIAGNOSTICS PITFALL

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Scabies, caused by the mite "Sarcoptes scabiei "is an infectious dermatosis whose clinical manifestation may be non-specific, often mimicking an inflammatory dermatosis like atopic dermatitis. We report a revealing case of scabies misdiagnosed as atopic dermatitis in twins, highlighting the importance of differential diagnosis in pruritic childhood rashes. Three-year-old monozygotic twins presented with a two-month history of pruritic skin lesions were brought in by their parents for a consultation. They had previously seen a general practitioner who diagnosed and treated it as atopic dermatitis without significant improvement. Both children exhibited hypopigmented malar patches with fine scaling and widespread excoriated vesicles and telltale asymmetric palmar pustules in one twin. The extent of the lesions was significant in both cases. The absence of personal or family atopic history raised our suspicion. A physical examination of both parents was then carried out, revealing suspicious lesions while dermatoscopic identification of pathognomonic "delta-wing jet" signs confirmed the diagnosis of scabies. A combined treatment involving a contact scabicide, oral ivermectin (200ug/kg for adults) and environmental decontamination was initiated for the entire family. And the rapid improvement in symptoms solidified our diagnosis. This case underscores a critical clinical dilemma: in a resource-limited region where atopic dermatitis diagnoses are increasingly common, scabies affecting approximately three hundred million people annually worldwide can present a remarkably convincing imitation. We highlight three key differentiators that prevented ongoing diagnostic error: the epidemiological investigation of pruritus in close contact, the characteristic palmoplantar findings atypical for atopic dermatitis and the contribution of dermatoscopy in resource-constrained environments. This case emphasizes that persistent atopic dermatitis unresponsive to conventional treatment, particularly in patients without atopic predisposition, should prompt immediate consideration of differential diagnosis. This diagnosis vigilance is especially important in pediatric populations, where management delays perpetuate both individual suffering and community transmission. The case serves as a reminder that in the global landscape of dermatological practice, common parasitic infestations may wear the convincing disguise of more familiar inflammatory conditions like atopic dermatitis.

P15#1126
THE PATIENT VOICE IN ATOPIC ECZEMA GUIDELINES: HOW DO WE MAKE IT STANDARD PRACTICE?

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In May 2025, the World Health Assembly mandated a global action plan on skin diseases, recognising that these conditions have been neglected in healthcare strategies to date. This resolution presents an opportunity to accelerate care for the many individuals with skin disease. Clinical guidelines will play a pivotal role: supporting effective prevention, treatment and long-term care. It is recommended that guidelines are developed by healthcare professionals and patients working in partnership, enabling patients' values and lived experience to provide critical context to the clinical evidence base. In atopic eczema (AE), however, which has the highest disease burden among skin diseases, only a small minority of guidelines has been developed with patient partners. Our aim was to consider how change might be realized in order to make patient engagement (PE) standard practice in AE guidelines. We examined guideline standards; the AE guidelines developed with patient partners; guideline development in other medical areas and the experience of the patient-advocate and healthcare-professional communities and identified barriers to PE in guideline development and approaches that enable patient

involvement. Barriers are multiple and include both elements of the development process that facilitate PE, such as training and support, and the capacity of healthcare systems and policy makers to develop or adapt appropriate guidelines for patients in any given geography. However, approaches to dismantling or bypassing these barriers applicable to AE guidelines were found in the sources we examined. We call on all stakeholders engaged in developing AE guidelines to respond to the WHA resolution by working to ensure PE in the development process so that AE guidelines reflect the patient perspective and are appropriate for the populations they serve.

P15#1130
FROM SYMPTOMS TO SILENCE: MAPPING THE ATOPIC DERMATITIS PATIENT JOURNEY IN CHILE

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Atopic dermatitis (AD) is a chronic inflammatory skin disease with early onset and lifelong impact. However, in Chile, the patient journey remains poorly understood, with concerns about delays in diagnosis, access to specialists, and treatment inequity. To describe the care trajectory of Chilean patients with AD, from symptom onset to current management, and identify potential barriers to diagnosis and treatment. A national cross-sectional survey was conducted in collaboration with the Chilean AD Patient Group. A total of 604 patients (age range: 0–60 years, mean: 28.5) completed questions on age at diagnosis, number and type of specialists consulted, and treatments received. Participants reported seeing a mean of 4.5 physicians during their journey. Although 40% were diagnosed in childhood, 43.4% received their diagnosis only in adulthood, suggesting significant diagnostic delay. Dermatologists provided the majority of diagnoses (79.3%), yet 44.0% reported having no current specialist follow-up, despite ongoing disease. While 51.1% initially consulted dermatologists, others saw general practitioners (21.0%), pediatricians (13.7%), or immunologists (12.3%), revealing variability in first-line access. Only 43.5% had used systemic therapy, and uptake of targeted treatments such as biologics or JAK inhibitors was minimal, likely due to barriers related to cost, availability, and health system coverage. This study reveals fragmentation of care, diagnostic delay, and poor access to advanced therapies in AD patients in Chile. In light of WHO's 2024 resolution naming skin diseases a global health priority, urgent reforms are needed to improve early diagnosis, treatment access, and long-term dermatologic care nationwide

P15#1136
COW'S MILK PROTEIN IN PROBIOTIC SUPPLEMENTS AS A TRIGGER OF ATOPIC DERMATITIS: A CASE REPORT

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Atopic dermatitis (AD) is a multifactorial inflammatory skin disease that may be triggered or exacerbated by various internal and external factors. Cow's milk protein allergy (CMPA) is among the most common food allergies in infancy and can contribute to disease flares. Hidden cow's milk protein in foods or dietary supplements may serve as a trigger in sensitized individuals. n/a n/a Case Report A 9-month-old boy presented with AD, characterized by erythematous lesions on the face and extensor limbs, along with multiple excoriations. His symptoms began at 5 months, shortly after switching from breastfeeding to a cow's milk-based formula. Treatment with an extensively hydrolyzed formula and topical therapy led to marked improvement within a month. One month later, a flare occurred. Further history revealed that the mother had introduced a probiotic supplement recommended on social media. It contained trace cow's milk protein, likely triggering the exacerbation. After discontinuation, the AD came back under control. Probiotics have shown beneficial effects in managing CMPA, especially when coexisting with AD, by promoting tolerance and improving symptoms. However, current data are preliminary and require further confirmation. Notably, some probiotics may contain trace amounts of cow's milk protein, which can trigger allergic reactions in sensitized individuals. Conclusion This case highlights the importance of recognizing hidden cow's milk protein as a potential trigger of AD flares in infants with coexisting CMPA. Due to social media influence, parents may introduce over-the-counter supplements without medical guidance. Clinicians should carefully assess all dietary products to prevent unintended exacerbations.

P15#1163
ORAL AND TOPICAL VITAMIN D SUPPLEMENTATION AND THE INCIDENCE OF NON-MELANOMA SKIN CANCER: SYSTEMATIC REVIEW OF RANDOMIZED CONTROLLED STUDIES

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Non-melanoma skin cancer (NMSC), comprising basal cell carcinoma (BCC) and squamous cell carcinoma (SCC), represents the most common malignancy globally and poses a growing public health challenge. Laboratory and epidemiological evidence have generated interest in vitamin D supplementation as a potential chemopreventive agent, but clinical data remain inconsistent. This review evaluates current evidence on the link between vitamin D supplementation and NMSC risk, focusing on the safety and preventive potential of oral and topical forms A comprehensive search of PubMed, ScienceDirect, and Cochrane Library up to June 2025 identified studies on vitamin D supplementation and NMSC risk in adults. Eligible studies included RCTs, cohort, and case-control designs. Four reviewers independently screened, extracted data, and assessed bias, resolving disagreements by consensus. Seven studies (3 RCTs, 3 cohorts, 1 case-control) from North America, Europe, and Turkey found no significant reduction in BCC or SCC risk with oral vitamin D supplementation. One study noted reduced BCC recurrence in deficient patients receiving high-dose vitamin D, but limitations prevent firm conclusions. Topical vitamin D analogs showed benefit only in combination treatments for actinic keratosis, not for BCC. Adverse events were rare. Overall, vitamin D shows no clear preventive effect against NMSC, though potential benefits in high-risk or deficient groups remain uncertain. Current evidence does not support the routine use of vitamin D supplementation for the prevention of NMSC. Clinical efforts should focus on established strategies for skin cancer prevention, with vitamin D supplementation reserved for individuals with deficiency or at risk for musculoskeletal complications.

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