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FROM THE EDITOR

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Dear Colleagues,

On behalf of the Editorial Board, we are delighted to announce the publication of the last issue of the Asthma Allergy Immunology Journal in 2025, which includes articles of high scientific level, related to clinically important subjects in the allergy, asthma, and immunology areas. In this issue, the readers will find 1 editorial article, 2 very detailed reviews, 13 very interesting research articles, 2 case reports, and 1 letter to the editor.

Our issue's first article is an editorial article authored by Gul O and Bavbek S (1). We published a review article authored by Gul O and Bavbek S related to single-bag rapid desensitization in the previous issue of The Journal of Asthma, Allergy & Immunology and highlighted that single-bag rapid drug desensitization protocols may represent a safe and effective alternative in carefully selected patients, with substantial time and labor savings (2). In our editorial article related to this recent review article, Gul O and Bavbek S conduct a very comprehensive literature review and highlight that single-bag rapid drug desensitization (RDD) protocols offer multiple advantages to both clinical allergy practice when used on appropriately selected patients undergoing desensitization: • Completion rates of approximately 99%, • Comparable incidence and severity of breakthrough reactions (BTRs), • Shorter infusion and preparation times (~90–200 minutes saved), • Reduced logistical burden and lower risk of dilution-related errors, • Potential for safe implementation in outpatient settings. (1)

In this issue, we are publishing 2 valuable reviews on very important topics in the field of allergy science that you can use in your clinical practice. One of our review articles is about Drug Allergy in Systemic Mastocytosis (3). This review summarizes the pathophysiological mechanisms underlying the risk of drug hypersensitivity in patients with mastocytosis, the factors contributing to the development of reactions, and safe management strategies based on the current literature. With this review, Aslan E et al. aim to improve understanding of the risks associated with drug use in mast cell disorders, prevent unnecessary pharmacological restrictions, support appropriate treatment approaches, and thereby enhance the efficacy and safety of patient management (3). Aslan E et al. emphasize that "it should be kept in mind that underlying systemic mast cell disease may be present in all individuals who develop anaphylaxis (3)".

Our second review article summarizes the current literature on neurodevelopmental comorbidities in children with asthma. This review comprehensively examines the complex relationship between asthma and neurodevelopmental disorders (NDDs), focusing specifically on attention deficit-hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) (4). The clinical significance of this relationship, potential pathophysiological mechanisms, and integrated management strategies are discussed comprehensively in this review (4). Can D emphasized that while asthma is a significant chronic disease of childhood, its strong comorbidity with NDDs underscores the necessity of a holistic approach to disease management (4). A multitude of mechanisms, including chronic inflammation, hypoxia, sleep disturbances, psychosocial stress, and genetic predispositions, form the bedrock of this complex relationship (4). *The rising prevalence of ADHD, ASD, and other NDDs in asthmatic children mandates clinicians to possess a high level of awareness regarding these comorbidities, perform systematic screening, and implement integrated treatment plans within a multidisciplinary team framework (4).*

Our first original article, authored by Yemis T et al., is related to allergic rhinitis treatment (5). This study aimed to assess the impact of oral antihistamines (OAH), intranasal corticosteroids (INC), and their combination on Nasal Obstruction Symptom Evaluation (NOSE) scores in individuals diagnosed with mild persistent allergic rhinitis and found that adding OAHs to INC therapy does not enhance the relief of nasal obstruction in patients with mild persistent allergic rhinitis (5). Given their proven efficacy and safety profile, *INC monotherapy appears to be the preferred option, offering advantages in both patient compliance and cost-effectiveness* (5).

In recent years, artificial intelligence (AI) has been increasingly utilized in various domains within the medical field. From early diagnosis of diseases to the treatment plans, as well as patient management and medical research, AI-based advanced language models have shown great potential in patient education. These sophisticated models

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have the capability to answer patient questions, provide information about symptoms, and deliver accurate and timely insights on general health topics. Colak S et al. have conducted a study related to AI-based advanced language models concerning patient education in the allergy field (6). In this study, patient information text for asthma from the Turkish National Society of Allergy and Clinical Immunology (TNSACI) website and AI-generated text by Chat Generative Pre-trained Transformer (ChatGPT) were compared by experienced specialist physicians (6). Both texts were found to be similar in terms of accuracy, consistency, and reliability; however, the ChatGPT text was considered more comprehensible and was considered less overly detailed (6). Regarding overall preference, 57.1% of physicians favored the ChatGPT text, 4.8% preferred the TNSACI text, and 38.1% rated them equally (6). Specialist physicians found the ChatGPT-generated asthma information text to be more comprehensible and preferable. In this study, Colak S et al. highlight the potential of Large Language Models (LLMs) to assist medical professionals in generating patient-friendly informational materials (6).

Our third original article is related to serum endocan levels in adult asthma patients, investigating its relationship with asthma severity and control level (7). While serum endocan levels were notably higher in asthmatic patients compared to healthy controls, suggesting that endothelial dysfunction may contribute to asthma pathophysiology, serum endocan levels did not differ significantly across asthma severity groups or between controlled and uncontrolled asthma (7). No significant correlations were observed between endocan levels, ACT scores, or pulmonary function parameters. Col A et al. have concluded that the lack of an association with disease severity and control limits any potential as a monitoring biomarker (7)

Our following original article authored by Gumusburun R et al. investigates "Type D Personality in Adults with Inborn Errors of Immunity (IEI): Prevalence and Psychosocial Associations" and has found that Type D personality does not appear to be disproportionately elevated in adults with IEI, while its association with psychiatric diagnoses highlights the potential utility of personality-based screening in this population (8).

In this issue, our readers can also find an original article named "Serum FcεRI as a Putative Biomarker of Disease Severity and Immune Perturbation in Paediatric and Adult Atopic Dermatitis" investigating a biomarker in atopic dermatitis (9). This study highlights the significant role of FcεRI in the inflammatory profile of AD. The findings indicate that FcεRI levels are markedly elevated in AD patients compared to healthy controls, suggesting that FcεRI plays a crucial role in disease severity and immune dysregulation (9).

Another interesting research article related to the prognosis of COVID-19 infection in children with immune deficiency can also be found in this issue (10). The study provides an analysis of the clinical progression, final outcome, and long-term side effects of SARS-CoV-2 infection in a significant cohort of pediatric patients with inborn error of immunity (IEI) (10). The severity and mortality of COVID-19 in this cohort appear to be associated with a higher prevalence of comorbidities, particularly chronic lung disease. Disease severity was highly variable across IEI groups and was particularly associated with innate immune system defects, autoinflammatory disorders, and humoral immune defects (10). The researchers highlighted that their recommendation to use convalescent plasma and remdesivir can be vital for COVID-19 patients, especially for patients with humoral immune defects, B-cell lymphopenia, and preexisting comorbidities (10). This study has also demonstrated that pediatric patients with inborn errors of immunity who underwent HSCT generally experienced a favorable clinical course and mild long-term effects following COVID-19 infection (10).

Another original article of this issue, titled "The Effect of Parental Health Literacy Level on Appropriate Moisturizer Use in Children with Eczema and Parental Atopic Eczema Knowledge" emphasizes that health literacy (HL) in mothers of children with AD is a complex and multifactorial construct, shaped by factors such as education level, age, and socioeconomic status (11). The findings of this study revealed that HL was significantly associated with practical

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knowledge related to AD skin care, particularly the use of moisturizers—but not with general disease knowledge or direct treatment behaviors (11). The authors highlight that educational programs should be developed to enhance mothers' health literacy, specifically concerning skin care in children with AD, and access to information should also be supported through digital platforms, instructional videos, and individualized counseling (11).

Hereditary angioedema (HAE) is a rare autosomal dominant disorder characterized by recurrent episodes of skin and mucosal swelling, potentially leading to life-threatening laryngeal edema. Its gastrointestinal manifestations may mimic those of autoinflammatory diseases such as Familial Mediterranean Fever (FMF), complicating the diagnostic process, particularly in patients resistant to colchicine therapy. In the research article authored by Akelma Z et al., a total of 51 patients were tested regarding an HAE diagnosis and one case in which decreased C1-INH activity led to the diagnosis of type II HAE (12). This study emphasizes the importance of considering HAE in pediatric patients presenting with persistent abdominal symptoms particularly in cases unresponsive to colchicine therapy (12).

Hocanli I and Soyyigit ST investigated the factors influencing Pulmonary Function Tests (PFTs) parameters in patients with chronic rhinitis (CR) with a cross-sectional study (13). The main finding was that nasal polyp (NPs) and eosinophilia were associated with decreased MEF 25-75%, FEV_1%, and FEV_1/FVC% values, whereas allergen sensitization had no significant impact on PFTs parameters (13). The authors highlighted that spirometry should be performed in CR patients, especially those with accompanying peripheral blood eosinophilia and NPs, and these patients should be carefully evaluated for lower airway obstruction and closely monitored (13).

Nonsteroidal anti-inflammatory drugs (NSAIDs) are commonly preferred in children due to their antipyretic and analgesic effects and are also the most commonly encountered cause of drug hypersensitivity in children. Karaca Sahin M et al. investigated pediatric patients with suspected NSAID hypersensitivity (NSAID-H) using SPT, IDT, and DPTs, including a wide range of alternative drugs, which allowed for a detailed assessment of tolerance and analyzed potential risk factors for NSAID-H in children (14). The authors highlighted that underlying allergic diseases do not always align with the current NSAID-H classification in the pediatric population and emphasized the frequent off-label use of NSAIDs in children, and showed that parental concerns about aspirin significantly limit its use in DPT, thereby creating diagnostic challenges specific to this age group (14). Finally Karaca Sahin M et al. investigated risks for NSAID-H and found that *risk was increased with age > 10 years, multiple previous reactions, reaction onset < 1 h, angioedema/anaphylaxis, co-existing allergy, and a family history of drug allergy* (14).

In industrialized countries, rising pet ownership and energy-efficient building designs further amplify indoor Fel d 1 exposure. Readers will find a very valuable article on cat allergy in children in this issue of the Asthma Allergy Immunology Journal. Baysal Bakir D et al. conducted this research in a region with a particularly high density of cats in the environment, and it provides novel insight into the relative impact of indoor versus outdoor exposure (15). The authors found that *while outdoor contact may contribute to rhinitis symptoms, indoor cat ownership was identified as the leading independent risk factor for asthma prevalence and poor asthma control, highlighting the need to counsel sensitized families about the risks associated with keeping a cat at home* (15).

Another original article in this issue is related to immune deficiency awareness of family physicians. Yesilkaya S A et al. conducted a descriptive, cross-sectional online survey among actively practicing family physicians (16). The authors used a questionnaire including 23 items addressing general knowledge of primary immune deficiency (PID), awareness of the warning signs, and perceptions of related clinical features such as allergy, autoimmunity, malignancy, and autoinflammation (16). The researchers showed that although family physicians demonstrated adequate general knowledge about PID, awareness of the "10 warning signs" in adults remained limited (16). The authors highlighted an urgent need for targeted educational interventions to improve early recognition and referral of patients with PID (16).

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Tuncay G et al. have conducted a retrospective, single-center pilot cohort survey regarding the efficacy of TXA in HAE-nC1INH treatment (17). A total of six patients with HAE-nC1INH receiving TXA were enrolled and the angioedema control test (AECT) and quality of life (AE-QoL) scale were administered before and after TXA (17). All patients were receiving TXA 1000-1500 mg/d for LTP, while two patients had received TXA for acute AE attacks. The median duration of TXA LTP therapy was 48 (IQR, 28-72) months and the median number of annual attacks before and after TXA was 36 and 1, respectively. At least a two-fold improvement in terms of minimal clinically important difference was detected in all four sub-headings (function, fatigue, fear, and nutrition) of the AE-QoL scale (17). The authors concluded that TXA was highly effective in reducing attack frequency and significantly improving disease control in their 6 patients with HAEnC1INH (17).

Our readers will also find two interesting case reports in this issue. The first case report is about "Acute Generalized Exanthematous Pustulosis in Pediatric Patients" (18). Our second case report is related to "Asthma, PM2.5 Exposure, and Lung Cancer" (19).

Finally, we also publish a letter to the editor in this issue in relation to the first reported case of cefuroxime-induced Drug-Induced Enterocolitis Syndrome (DIES), and we would like to highlight the need for awareness of this distinct clinical entity and support more accurate management of affected patients in the future (20).

On behalf of the Editorial Board of Asthma Allergy Immunology, we hope that the readers will be able to enhance patient management and outcomes with the articles found within this issue.

Sincerely,
Özlem Keskin, MD, PhD, Professor
Editor-in-Chief

References

1. Gul O, Bavbek S. Could Single-Bag Protocols Serve as An Alternative to Multiple-Bag Protocols for Desensitization? Asthma Allergy Immunol 2025;23:195-8.
2. Gul O, Bavbek S. Single-Bag Rapid Drug Desensitization: An Alternative to Multiple-Bag Desensitization Protocols. Asthma Allergy Immunology 2025;23:14-21.
3. Aslan E, Mete Gokmen N, Sin AZ. Drug Allergy in Systemic Mastocytosis: Points to Consider. Asthma Allergy Immunol 2025;23:199-207.
4. Can D. Neurodevelopmental Comorbidities in Children with Asthma. Asthma Allergy Immunol 2025;23:208-16.
5. Yemis T, Birinci M, Erdivanli B, Guneser Y, Celiker M, Celebi Erdivanli O. Treatment Outcomes in Allergic Rhinitis: Nasal Obstruction Symptom Evaluation Scale-Based Analysis. Asthma Allergy Immunol 2025;23:217-25.
6. Colak S, Cerci P, Dumanoglu B, Can Bostan O. Can Artificial Intelligence-Based Large Language Models Provide Accurate and Reliable Information to Asthma Patients? A Comparative Analysis with Expert Insights Asthma Allergy Immunol 2025;23:226-32.
7. Col A, Yazici O, Yenisey C. Serum Endocan Levels in Adult Asthma Patients: A Controlled Study Investigating Associations With Disease Severity and Asthma Control. Asthma Allergy Immunol 2025;23:233-41.
8. Gumusburun R, Altay S, Hakverdioglu Yont G, Senuzun Aykar F, Cafer Karalar B, Okumus A, et al. Type D Personality in Adults with Inborn Errors of Immunity: Prevalence and Psychosocial Associations. Asthma Allergy Immunol 2025;23:242-50.

doi: 10.21911/aai.2025.013

9. Aayf AL-Shammari BI, Mohammed AL-Allaff RG. Serum FcεRI as a Putative Biomarker of Disease Severity and Immune Perturbation in Paediatric and Adult Atopic Dermatitis Asthma Allergy Immunol 2025;23:251-62.
10. Deveci N, Haskologlu S, Baskin K, Erkmen H, Islamoglu C, Arga G, et al. Treatment and Long-Term Outcome of COVID-19 Disease in Children with Inborn Errors of Immunity (IEI): Does Hematopoietic Stem Cell Transplantation (HSCT) Have a Protective Effect?. Asthma Allergy Immunol 2025;23:263-78.
11. Gunes S, Kan A, Gul Y. The Effect of Parental Health Literacy Level on Appropriate Moisturizer Use in Children with Eczema and Parental Atopic Eczema Knowledge. Asthma Allergy Immunol 2025;23:279-86.
12. Akelma Z, Sirin S; Ozdel S, Baglan E, Ozmen S. Low Prevalence but High Diagnostic Yield: Screening for Hereditary Angioedema in Pediatric Patients with Autoinflammatory Features and Refractory Abdominal Pain. Asthma Allergy Immunol 2025;23:287-91.
13. Hocanli I, Soyyigit S. Are There any Factors Affecting Pulmonary Function Tests in Patients with Chronic Rhinitis?. Asthma Allergy Immunol 2025;23:292-300.
14. Real-World Evaluation of NSAID Hypersensitivity in Children: Diagnostic Challenges and Risk Factors. (Karaca Sahin M, Erbay MF, Caliskan N, Yildirim G, Bologur H, Gungor H, Kokcu Karadag SI, Ozceker D. Asthma Allergy Immunol 2025;23:301-9.
15. Baysal Bakir D, Atay O, Yagmur H, Kabadayi G, Ozsezen B, Uzuner N. Indoor Cat Exposure and Respiratory Outcomes in Cat-Allergic Children: A Retrospective Study from a High-Feline-Density Region. Asthma Allergy Immunol 2025;23:310-7.
16. Yesilkaya S, Vural Solak GT, Simsek Yurt N, Yavuz E. Knowledge and Awareness of Primary Immunodeficiency in Primary Care: A Survey of Family Physicians. Asthma Allergy Immunol 2025;23:318-27.
17. Tuncay G, Uysal Soyer O, Birben E, Damadoglu E, Karakaya G, Kalyoncu AF. Evaluation of Disease Control in Patients with HAEnC1INH Receiving Tranexamic Acid. Asthma Allergy Immunol 2025;23:328-34.
18. Celik NA, Ozturk G, Haskologlu S, Islamoglu C, Kostel Bal S, Heper A, et al. Acute Generalized Exanthematous Pustulosis in Pediatric Patients: A Rare Drug Reaction from the Neonatal to Adolescent Period. Asthma Allergy Immunol 2025;23:335-41.
19. Atika N, Maranantha D. Asthma, PM2.5 Exposure, and Lung Cancer: A Case Report on the Involvement of IL-17A. Asthma Allergy Immunol 2025;23:342-9.
20. Ozer M. An Unrecognized Reaction: A Case of Cefuroxime-Induced Drug-Induced Enterocolitis Syndrome in a 7-Year-Old Child. Asthma Allergy Immunol 2025;23:350-2.