

Eosinophilic esophagitis: from discovery to effective treatment

This issue of the *Proceedings* addresses a broad spectrum of atopic conditions that focus, first on the topic of eosinophilic esophagitis (EoE), a condition first reported by Landres *et al.*¹ in 1978. Since then, EoE has been increasingly recognized as one of the major causes for dysphagia, food impaction, and food regurgitation in adults, and manifests as feeding dysfunction, vomiting, abdominal pain, and poor weight gain in children. With an increasing prevalence of EoE over the past 2 decades, accompanied by a growing burden of disease, there is high demand for U.S. Food and Drug Administration approved treatments specifically indicated for this condition. In this issue, Sher *et al.*² not only describe the type 2 inflammatory response that underlies the pathophysiology of EoE but also discuss both the currently available treatment options as well as treatment with emerging biologic therapies that specifically target type 2 inflammation.

As in past issues of the *Proceedings*, coronavirus disease 2019 (COVID-19) continues to be a topic of great interest and concern for the allergist/immunologist.³⁻²⁹ In the March 2022 issue, “long COVID” was introduced as a condition composed of the lingering effects, medical complications, and potentially long-lasting health problems that afflict patients at an estimated $\geq 10\%$ frequency after acute infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).²⁹ Although long COVID has been designated as “our next public health disaster in the making,” little is known about its pathophysiology. In this issue, Buonsenso *et al.*³⁰ propose an hypothesis-driven model of viral persistence for the pathophysiology of this syndrome. Because of the importance of this information to patients who have long COVID, this article was chosen as the basis for this issue’s “For the Patient” section, entitled “The long COVID syndrome: a challenging burden for the patient.” This segment, found in the final pages of the print version of this issue and also available online, consists of a one-page article synopsis written in a readily comprehensible fashion to help patients better understand the content of the full article and the significance of this condition.

In continuing with the theme, COVID-19, Bukstein *et al.*³¹ conducted health-care provider (HCP) and patient surveys to assess the impact of COVID-19 on the use and perception of telehealth visits for atopic and respiratory diseases. They found that, during pre-pandemic conditions, 40% of the HCP participants were conducting telehealth visits, which increased to 100% after the pandemic start. In addition, 27% of the patient participants before the pandemic used telehealth, which increased to 94% after its commencement.³¹ Ratings of “good” or “excellent” for the overall telehealth experience by the HCP participants improved from 44% before to 60% after the pandemic start, and improvement by the patient participants improved from 77% to 88%.³¹ Analysis of these data demonstrates that telehealth visits for atopic and respiratory diseases are an important service that patients desire and that should continue to be offered.

Hereditary angioedema (HAE) continues to be another important topic of interest for the allergist/immunologist. In this issue, Craig *et al.*³² report on their evaluation of long-term symptom control and rescue medication use in patients with HAE who receive subcutaneous C1-inhibitor through enrollment in an open-label extension of the phase III Clinical Study for Optimal Management of Preventing Angioedema with Low-Volume Subcutaneous C1-Inhibitor Replacement Therapy (COMPACT) trial. The authors conclude that prophylactic therapy with subcutaneous C1-inhibitor was associated with sustained (≥ 12 months) symptom control in patients with HAE and that 50% of the patients remained attack-free throughout the duration of the study.³²

In transitioning to asthma, in this issue, Deng *et al.*³³ report on the characteristics of subjects with asthma who have chronic cough, which is often the most prominent and intractable symptom reported by patients with asthma. In this prospective study, the authors classified patients ages ≥ 18 years with stable asthma as “asthma with chronic cough” or “asthma with non-chronic cough.” The authors found that patients with asthma and with chronic cough had a more significant disease burden, with increased exacerbations, health-care utilization, and impaired work productivity and daily activity than those without cough.³³ These observations not only have potential implications in the clinical management of patients with asthma and with chronic cough

but also call for more attention to the study of patients with this asthma phenotype.

Cross-allergen sensitivity continues to be an issue that illustrates the intricacies of how allergic sensitization develops. In an interesting comparative report, Can Boston *et al.*³⁴ explore whether pollen hypersensitivity might influence immune deviation toward a T-helper type 2 response and immunoglobulin E (IgE) sensitivity that could be a determining factor for the development of sensitization to nonseasonal, nonrelated allergens, *e.g.*, cat dander. In their analysis, the authors found that the frequency of cat sensitization was significantly higher among the patients with timothy grass allergy compared with those without timothy grass allergy.³⁴ They conclude that timothy grass allergy may play a predisposing role in the development of cat sensitization.

In transitioning from environmental sensitization to food allergy is an article from Lang *et al.*,³⁵ who sought to evaluate the performance and sensitization patterns of peanut component tests in clinical practice. These authors performed a retrospective chart review of 184 children with peanut component test and oral food challenge (OFC) results. They found that an Ara h 2 specific IgE level ≥ 0.35 kUA/L was associated with increased odds of reacting to OFC, but, interestingly, 19 patients (37%) with a positive Ara h 2 result did not react.³⁵ The authors conclude that, although Ara h 2 specific IgE is associated with clinical reactivity, a significant proportion of patients sensitized to Ara h 2 tolerate peanut.³⁵ Their findings give support to the importance of OFC as a tool in the evaluation of peanut allergy.

The final article in this issue addresses the underrecognized topic of mental health in allergic disease, in particular, the mental health status of patients with drug hypersensitivity and the impact of the psychological distress associated with drug sensitivity on their quality of life (QoL). By using validated psychological and QoL surveys, Beyaz *et al.*³⁶ sought to evaluate anxiety, depression, and QoL levels in patients with drug hypersensitivity, and to determine the impact of this condition on QoL. Their results showed that anxiety and depressive symptoms have a high prevalence in patients with confirmed drug hypersensitivity, which leads to a notable decrease in QoL. Based on these findings, the authors recommend that psychological support is critical to reducing the negative outcomes of hypersensitivity drug reactions in patients who have these conditions.

In summary, the collection of articles found within the pages of this issue provides further insight into the intersecting crossroads of inflammation and disease that manifest as allergic, immunologic, and respiratory disorders that afflict patients whom the allergist/immunologist serves. In particular, they exemplify how the complexities of EoE, COVID-19, HAE, asthma, allergic

sensitization, food allergy, and drug hypersensitivity continue to challenge the allergist/immunologist. In keeping with the overall mission of the *Proceedings*, which is to distribute timely information with regard to advancements in the knowledge and practice of allergy, asthma, and immunology to clinicians entrusted with the care of patients, it is our hope that the articles found within this issue will help foster enhanced patient management and outcomes. On behalf of the Editorial Board, we hope that you are able to make practical use of the diversity of literature offered in this issue of the *Proceedings*.

Joseph A. Bellanti, M.D and
Russell A. Settiple, M.D

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