Asthma Allergy Immunology

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FROM THE EDITOR

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Dear Colleagues,

On behalf of the editorial board we are glad to announce that six research articles, one editorial, five case reports, and one letter to the editor are published in this issue of Asthma Allergy Immunology.

The three research articles in this issue are related to some aspects of coronavirus disease-19 (COVID-19) vaccines and infection. Although the COVID-19 epidemic has been greatly under control in many regions of the world with the introduction of intense vaccination and protection programs, the SARS-CoV-2 virus is still wandering and infecting people (1). On the other hand, moderate to severe hypersensitivity reactions to COVID-19 vaccines continue to be a threat in some susceptible individuals (2).

Beyaz et al. have searched for the role of COVID-19 vaccines in triggering exacerbations among the largest series of chronic spontaneous urticaria (CSU) patients with well controlled or remitted disease (3). They included 227 CSU patients vaccinated with the Pfizer/BioNTech mRNA vaccine, 67 with the Sinovac/CoronaVac inactivated vaccine, and 54 with both vaccines. Clinical urticaria exacerbations/relapses were observed in a total of 76 patients (34.2%) within two weeks after mRNA and/or inactivated vaccines. They could not find any other factor that could be associated with the relapses. In fact, CSU is a complex disease with many probable triggers, one of which may be COVID-19 vaccines.

In Turkey, Pfizer-Biontech COVID-19 vaccination began for subjects aged 15 years and above on August 2021, and for those 12-14 years old on September 2021, regardless of whether they had a chronic disease or not. However, vaccine hesitancy continues to be a problem in Turkey, among both adults and children. Yılmazbas et al. have searched for the COVID-19 vaccination rates in allergic children aged 12 to 18 years and evaluated the factors contributing to vaccine hesitation (4). Of the 261 children with allergic diseases, only 52.4% had two doses of the COVID-19 vaccine. Among unvaccinated children, the leading reasons for the parents to hesitate were the novelty of the vaccine, probability of side effects, and it being a foreign vaccine, not national. This study has pointed out that vaccination rates, which are determined by parents, are low even in allergic children, despite the availability of a proven and reliable vaccine for children.

Although uncontrolled severe asthma may be a risk factor for fulminant COVID-19 infection, it is controversial whether inhaled corticosteroids and/or the monoclonal antibody treatments used may play a protective role or trigger a more severe disease. In this issue, Soyyigit et al. have reported their results about the frequency and characteristics of COVID-19 infection among adult patients who have used omalizumab (n:51) or mepolizumab (n:20) for different allergic diseases such as severe allergic asthma, CSU, chronic rhinosinusitis, and allergic pulmonary aspergillosis for at least six months (5). Among these patients, of which, 70 % were vaccinated, PCR test positivity was found in only 11 (15.4 %), and all were asthmatic patients. While most had mild disease, two patients on mepolizumab treatment had a severe course of COVID-19. However, no intensive care admission or death was recorded. The authors have concluded that treatment with anti-T2 biological agents, especially omalizumab, seemed to be safe and reliable in the COVID-19 pandemic period.

Although cow's milk and egg are the most frequent triggers of food allergy among children, many fruits and nuts may also play a role, and can result in a clinical condition named oral allergy syndrome or fruit-latex syndrome (6). In their present study, Cavas et al. examined plants containing protein structures similar to the endochitinase class I protein found in avocado, using in silico tools (7). The results revealed high rates of similarities between endochitinase like proteins of Persea americana (avocado) and 10 potential allergen species, including Cinnamomum micranthum (cinnamon), Phoenix dactylifera (dates), Allium sativum (garlic), Citrus unshiu (tangerine), Diospyros kaki (persimmon), and Spinacia oleracea (spinach). This study extended the cross reactivity pattern of fruit-latex syndrome with the help of new in silico tools.

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Kılıc et al. have reported the clinical and laboratory characteristics of 12 children diagnosed with ataxia-telangiectasia in their clinic between 2008 and 2021 (8). In addition to classical clinical and immunologic findings, they found a very high rate of consanguineous marriage, homozygous c.4940T>G (p.L1647R) and homozygous c.6047A>G (p.D2016) mutations in the ATM gene, and elevated alpha-fetoprotein levels. This study emphasizes the importance of consanguineous marriage, which is still frequent in some parts of the world, in the emergence of autosomal recessive monogenic diseases, especially primary immunodeficiencies.

Chronic spontaneous urticaria (CSU) is mostly regarded as an autoimmune phenomenon and autoantibodies to IgE or IgE receptors are thought to be present in 30-40% of CSU cases, in whom omalizumab therapy has been shown to be effective (9). However, there is a significant group of CSU patients who do not respond to omalizumab therapy. Mesenchymal stem cells (MSCs), which have been shown to be beneficial in autoimmune diseases, may be one alternative treatment (10). In this issue, an in vitro study that searched for the immunomodulatory effects of MSCs and MSC-derived exosomes on immune cells belonging to five refractory CSU patients is published (11). The authors evaluated the cytokine expression responses of peripheral blood mononuclear cells of these patients to autologous and allogeneic MSC and exosome applications. The preliminary results of this study have suggested that allogeneic MSC, or high-dose exosome administration may be a potential treatment option in treatment-resistant autoimmune CSU patients. This is a new promising treatment approach but the results should be supported by in vivo and clinical studies in the near future.

The "Editorial" of this issue is about the diagnostic management of chronic granulomatous disease, written by Koker MY (12). In this mini review, the author has summarized the recent developments about the diagnosis and treatment of this primary immunodeficiency disease, which may extend to adulthood with high morbidity and mortality.

There are five case reports in this issue. Two of these reports are about cases manifesting interesting or new aspects of primary immunodeficiency disorders. In brief, these are a father and son with DiGeorge syndrome (13), and a Hyper IgM syndrome case with a novel mutation in the AICDA gene (14). Other case reports were about different aspects of the field of allergy: an adolescent case of delayed urticaria-angioedema after mRNA vaccine (15), a drug-addicted adolescent case of DRESS syndrome due to carbamazepine (16), and an anaphylactic adult patient with Fabry disease who received an intravenous 12-step, 3-bag desensitization protocol with agalsidase beta (17).

Lastly, there is a "Letter to the editor" that called attention to the uncertainty about the methods of switching between the biologics used in severe asthma and the need for new studies and algorithms (18).

In keeping with the overall mission of *Asthma Allergy Immunology,* it is our hope that the articles found within this issue will contribute to enhanced patient management and outcomes. On behalf of the Editorial Board, we hope that the readers will be able to make practical use of the miscellaneous literature on different aspects of allergy and clinical immunology offered in this issue of *Asthma Allergy Immunology.*

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