

## Correspondence

### New-onset chronic spontaneous urticaria development after COVID-19 vaccination



#### To the Editor:

After reading the article “New-onset chronic spontaneous urticaria post–COVID-19 vaccination—South African case series” by Craffert et al, we have several concerns about the diagnostic procedures and normal values of laboratory evaluation of chronic spontaneous urticaria (CSU) cases associated with administration of the coronavirus disease 2019 (COVID-19) vaccine reported in the study.<sup>1</sup>

First, although the title of the article by Craffert et al<sup>1</sup> contained the term *new-onset chronic spontaneous urticaria*, we noticed that not all of the patients were diagnosed with CSU. In Table I of their article, Craffert et al<sup>1</sup> state that 2 of the 8 patients had chronic inducible urticaria (CIndU) solely and 1 patient had both CSU and CIndU. We know that CSU could co-occur together with CIndU; however, they are different entities.<sup>2</sup> Therefore, the title “New-Onset Chronic Urticaria” would have been more appropriate. Moreover, those patients in the study who had CIndU were said to have cholinergic urticaria, but information about how this diagnosis was made was not given anywhere in the entire article.

Second, in the article by Craffert et al,<sup>1</sup> a wide time gap between development of CSU and administration of the COVID-19 vaccine is observed. The pathophysiology of urticaria starting 1 day after vaccination and that starting 60 days after vaccination should not be the same. Drugs and vaccination play an essential role in immune-mediated type I (IgE-mediated) hypersensitivity reactions and induction of mast cell degranulation by other immune (types II–IV hypersensitivity) and nonimmune inflammatory mediators such as prostaglandins and kinins.<sup>3</sup> Craffert et al<sup>1</sup> did not discuss the effect of early or late postvaccination development of hypersensitivity on the clinical (autoallergic or autoimmune) phenotype and pathophysiology in the occurrence of CSU.

Third, all of the patients with CSU had a history of atopy or atopic disease, which have also been identified as risk factors. Additionally, all of the patients had comorbidity in their medical history. The fact that 6 of 9 patients were seen after the first dose of vaccine and had a history of allergy or comorbidity that could be blamed as the trigger in these patients may make it very difficult to blame COVID-19 vaccinations as the sole factor in the etiology of their CSU. The pathophysiologic assessment of CSU development as an autoallergic phenotype in the patients in this study may be consistent with this.

Fourth, of the COVID-19 vaccines, the mRNA vaccines are the most commonly used (see Table III in Craffert et al<sup>1</sup>). It is also noteworthy that most of the patients developing new-onset CSU

in this and previous studies have received the mRNA vaccine. Regrettably, Craffert et al<sup>1</sup> make no comment on this.

Fifth, in Table II of Craffert et al<sup>1</sup> and a couple of times in the text, a total IgE level greater than 43 IU/L was defined as a high IgE level. However, some studies state that for adults, total IgE levels up to 200 IU/mL are normal.<sup>4</sup>

Sixth, the term *COVID-19* infection, which is used in many places in the article, is not considered accurate. COVID-19 is a disease, but severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection is a viral infection. This is the correct terminology.

Seventh, Craffert et al<sup>1</sup> emphasized that “there was no available literature describing new-onset CSU post–COVID-19 infection”; however, when we searched PubMed, we found a couple of studies showing that SARS-CoV-2 infection can also cause new-onset CSU.<sup>5</sup> We also agree with the opinion expressed by Craffert et al<sup>1</sup> that new-onset CSU can occur after SARS-CoV-2 infection.

While thanking Craffert et al<sup>1</sup> for their fine work, we would like to remind them that clarification of these points is important for the reader and for a thorough understanding of the article.

Data are available on request from authors.

### DISCLOSURE STATEMENT

Disclosure of potential conflict of interest: The authors declare that they have no relevant conflicts of interest.

Ümmügülsüm Dikici, MD

Öner Özdemir, MD

From the Division of Allergy and Immunology, Department of Pediatrics, Research and Training Hospital of Sakarya University Medical Faculty, Adapazarı, Sakarya, Turkey.

Corresponding author: Öner Özdemir, MD, Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Sakarya University, Research and Training Hospital of Sakarya University, Adnan Menderes Cad., Sağlık Sok., No. 195, Adapazarı, Sakarya, Türkiye. E-mail: [ozdemir\\_oner@hotmail.com](mailto:ozdemir_oner@hotmail.com).

### REFERENCES

1. Craffert V, Day C, Peter J. New-onset chronic spontaneous urticaria post-COVID-19 vaccination—South African case series. *J Allergy Clin Immunol Glob* 2023;2:100154.
2. Konstantinou GN, Sagonas I, Giannoula FC. Chronic spontaneous and inducible urticaria associated with mycoplasma pneumoniae infection. *Cureus* 2021;13:e18746.
3. Tan EK, Grattan CE. Drug-induced urticaria. *Expert Opin Drug Saf* 2004;3:471–84.
4. Martins TB, Bandhauer ME, Bunker AM, Roberts WL, Hill HR. New childhood and adult reference intervals for total IgE. *J Allergy Clin Immunol* 2014;133:589–91.
5. Lascialfari G, Sarti L, Barni S, Liccioli G, Paladini E, Guarnieri V, et al. Relapse or worsening of chronic spontaneous urticaria during SARS-CoV-2 infection and vaccination in children: a telemedicine follow-up. *Allergol Immunopathol (Madr)* 2022;50(suppl Pt 2):1–7.

<https://doi.org/10.1016/j.jacig.2024.100265>