ARQUIVOS DE ASMA, ALERGIA E IMUNOLOGIA

Evolution of the diagnosis and management of urticaria

Evolução do diagnóstico e tratamento da urticária

Rosana Câmara Agondi[1]

Not long ago, the main urticaria subtype was called chronic idiopathic urticaria (CIU); some defined it as an allergic disease, while others defined it as a psychiatric disorder. Autoimmunity has always been involved in the pathophysiology of chronic urticaria. Our growing practical experience with the use of omalizumab, based initially on case reports and later on clinical trials and real-world studies, has set off a boom in research on the pathophysiology, pathogenesis, and treatment of urticaria. Currently, CIU is called chronic spontaneous urticaria (CSU), with autoimmunity as the main pathogenic mechanism involved.

Two autoimmune mechanisms are proposed for CSU: *autoimmune*, where IgG anti-IgE high affinity receptors or IgG anti-IgE autoantibodies are observed, involving a type IIb hypersensitivity reaction; and *autoallergic*, where IgE autoantibodies that recognize autoantigens are observed, such as thyroid peroxidase, involving a type I hypersensitivity reaction. Mast cells are the key cell type, and histamine is a major mediator involved in CSU.

All these advances in a short space of time have led to many changes in the CSU treatment algorithm. The latest international guideline recommends a treatment algorithm consisting of only 3 levels, with an effective and safe response in more than 80% of patients.

However, we want more! Increased disease control and improved quality of life of patients with CSU make us more eager to better understand the prognosis of the disease.

In this issue, Pereira et al. analyzed a potential biomarker, already suggested in the literature, for disease activity and treatment response. The presence of basopenia implies greater disease activity, a type IIb autoimmune mechanism, and a delayed response to omalizumab. In a retrospective study, the authors evaluated peripheral blood basophil counts, disease control, and response to omalizumab.[4]

Conversely, there are still many challenges to be faced in the clinical investigation and treatment of chronic inducible urticaria (CIndU). CIndU includes 9 subtypes and, unlike CSU, most of these subtypes can develop episodes of anaphylaxis. Triggers are well known, but not by most patients. For example, in a patient who develops hives and/or angioedema when exposed to a hot sunny day, a detailed history-taking is required and probably 2 or more provocation tests will be necessary to confirm the diagnosis. Azizi et al. describe the characteristics of a CIndU subtype, cholinergic urticaria, its mechanisms, impact on

1. Serviço de Imunologia Clínica e Alergia do Hospital das Clínicas da FMUSP – São Paulo, SP, Brazil.

Arq Asma Alerg Imunol. 2024;8(2):89-90.

http://dx.doi.org/10.5935/2526-5393.20230081-en

quality of life, and differential diagnoses as well as its challenging investigation.[5]

While we have greatly improved our knowledge of CSU and, at a lower level, of CIndU, we still have much to learn. The diagnosis of CSU is basically clinical. Therefore, we must value history-taking and physical examination, in addition to recognizing and ruling out differential diagnoses, such as urticarial vasculitis and bradykinin-mediated angioedema.

In this respect, a guideline on the topic, acute or chronic urticaria, can be of major help. Dias et al. developed a practical guide based on the international guideline on urticaria including the main topics on the disease. This review describes in detail everything from definition to treatment of patients with urticaria, including special populations such as older adults and pregnant women.[6]

References

1. Zuberbier T, Abdul Latiff AH, Abuzakouk M, Aquilina S, Asero R, Baker D, et al. The international EAACI/GA2LEN/EuroGuiDerm/APAAACI guideline for the definition, classification, diagnosis, and management of urticaria. Allergy. 2022;77:734-66.
2. Kolkhir P, Giménez-Arnau AM, Kulthanan K, Peter J, Metz M, Maurer M. Urticaria. Nat Rev Dis Primers. 2022;8:61.
3. Magerl M, Altrichter S, Borzova E, Giménez-Arnau A, Grattan CEH, Lawlor F, et al. The definition, diagnostic testing, and management of chronic inducible urticarias - The EAACI/GA(2) LEN/EDF/UNEV consensus recommendations 2016 update and revision. Allergy. 2016;71:780-802.
4. Pereira H, Lopes JC, Carrapatoso I, Todo-Bom A. Chronic spontaneous urticaria: correlation of basophil counts with disease control and response to anti-IgE therapy. Arq Asma Alerg Imunol. 2024;8(2):146-50.
5. Azizi GC, Dortas-Junior SD, Bastos-Junior RM, Lupi O, Valle SOR. Testes de provocação na urticária colinérgica: necessidades não atendidas [Letter]. Arq Asma Alerg Imunol. 2024;8(2):178-9.
6. Dias GAC, Agondi RC Brandão LS, Mansour E, Santos PFAM, Campinhos FL, et al. Atualização do Guia Prático da Associação Brasileira de Alergia e Imunologia para o Diagnóstico e Tratamento da Urticária baseado na diretriz internacional. Arq Asma Alerg Imunol. 2024;8(2):91-115.