

Allergologia et immunopathologia

Sociedad Española de Inmunología Clínica, Alergología y Asma Pediátrica

www.all-imm.com



CORRESPONDENCE



RE: Cold-induced urticaria and development of anaphylaxis

Öner Özdemir

Division of Allergy and Immunology, Department of Pediatrics, Research and Training Hospital of Sakarya, Sakarya University, Medical Faculty, Adapazarı, Sakarya, Türkiye

Received: 28 June 2024; Accepted 29 July 2024

Available online: 1 September 2024

KEYWORDS

Cold-induced urticaria; anaphylaxis; chronic urticaria: inducible urticaria Dear Editor.

I have read the article titled, "Cold-induced anaphylaxis triggered by drinking cold water" by Alrafiaah et al. with great interest. Ideally, this article should have discussed some aspects of the types of chronic urticaria,, but this has not been done. This makes it difficult to understand the purpose of the article. It would be helpful for the reader if these issues were discussed and clarified.

First: Although it is said that a trigger, e.g., cold should be looked for in a patient with chronic spontaneous urticaria (CSU), the coexistence of CSU and chronic inducible urticaria (CIndU) and the frequency of their coexistence, etc., have not been discussed in the article. For instance, of the 708 patients with CSU, 247 (35%) were found to have comorbid CIndU in a study.2

Second: In addition to CSU, this patient seemed to have cold urticaria and dermographism. Could the ice cube test be inaccurate in a patient with dermographism? Because, although the figure shows more skin signs of dermographism, there is no image showing a positive ice cube test. The coexistence of these three conditions and their effects on each other has never been mentioned or discussed in the article.3

Third: In this pediatric patient who also had CSU, no laboratory tests and no known serum tests for chronic cold urticaria were performed. Also, no further or detailed investigations were performed for the differential diagnosis of the patient.

Cold urticaria is described by the development of urticaria, usually superficial and/or angioedema reaction, following cold contact. It is more commonly seen in young women. Although the pathogenesis is unknown, the diagnosis is dependent on history and ice cube tests.^{4,5} Cold urticaria can be categorized as acquired and familial disorders with

*Corresponding author: Öner Özdemir, Division of Allergy and Immunology, Department of Pediatrics, Faculty of Medicine, Sakarya University, Research and Training Hospital of Sakarya, Adnan Menderes Cad., Sağlık Sok., No: 195, Adapazarı, Sakarya, Türkiye. Email address: onerozdemir@sakarya.edu.tr

https://doi.org/10.15586/aei.v52i5.1167

Copyright: Özdemir Ö

License: This open access article is licensed under Creative Commons Attribution 4.0 International (CC BY 4.0). http://creativecommons.org/

Özdemir Ö

autosomal dominant inheritance. Idiopathic cold urticaria is the most frequent type, but cryopathy should also be investigated.

There is no adequate investigation as to whether this case is idiopathic or familial, or regarding its cause. In this case, no family history was given, and the presence of an acquired cause was not explored. Again, due to the age of the patient, the possibility of infections such as EBV, mycoplasma, hepatitis B, toxoplasmosis, or stings by ants/bees should have been discussed.⁴⁻¹²

Minor points: Although the patient had anaphylaxis and was in the emergency room for 2 hours, no epinephrine was administered. Instead, an epinephrine autoinjector was prescribed when sending the patient home as an accepted practice. It is clear from the author's country of origin, as is the case in many other countries, that epinephrine is not only under-prescribed but also under-administered in the emergency department.

Conclusion: I would like to thank the authors for this high-quality case report and its results. This raises physicians' awareness of cold urticaria, a type of chronic inducible urticaria, and the possibility of anaphylaxis due to it.

References

- Alrafiaah AS, Netchiporouk E, Ben-Shoshan M. Cold-induced anaphylaxis triggered by drinking cold water. Allergol Immunopathol (Madr). 2024;52(2):45-47. https://doi.org/ 10.15586/aei.v52i2.1041
- Kovalkova E, Fomina D, Borzova E, Maltseva N, Chernov A, Serdoteckova S, et al. Comorbid inducible urticaria is linked to non-autoimmune chronic spontaneous urticaria: CURE insights. J Allergy Clin Immunol Pract. 2024;12(2):482-490.e1. https://doi.org/10.1016/j.jaip.2023.11.029

- Ornek Ozdemir S, Kuteyla Can P, Degirmentepe EN, Cure K, Singer R, Kocaturk E. A comparative analysis of chronic inducible urticaria in 423 patients: Clinical and laboratory features and comorbid conditions. J Eur Acad Dermatol Venereol. 2024;38(3):513-520. https://doi.org/10.1111/jdv.19637
- Delorme N, Drouet M, Thibaudeau A, Verret JL. Urticaire au froid [Cold-induced urticaria]. Allerg Immunol (Paris). 2002;34(7):255-8.
- Seropian E, Iamandescu IB, Filip V. Clinical and therapeutical aspects of cold urticaria (urticaria a frigore). Allergol Immunopathol (Madr). 1984;12(4):303-11.
- Özdemir Ö. Cold urticaria due to amoxicillin-clavulanic acid. J Investig Allergol Clin Immunol. 2024. https://doi.org/10.18176/ iiaci.0999
- Morais-Almeida M, Marinho S, Gaspar A, Arêde C, Loureiro V, Rosado-Pinto J. Cold urticaria and infectious mononucleosis in children. Allergol Immunopathol (Madr). 2004; 32(6):368-71. https://doi.org/10.1016/s0301-0546(04)79270-8
- Miralles López JC, López Andreu FR, Sánchez-Gascón F, López Rodríguez C, Negro Alvarez JM. Cold urticaria associated with acute serologic toxoplasmosis. Allergol Immunopathol (Madr). 2005; 33(3):172-4. https://doi.org/10.1157/13075702
- Barranco Sanz P, López Serrano C. Urticaria a frigore asociada a marcadores serológicos de la hepatitis B y a crioglobulinemia [Cold urticaria associated with serologic markers of hepatitis B and cryoglobulinemia]. Allergol Immunopathol (Madr). 1987;15(3):167-9.
- Kutlu A, Aydin E, Goker K, Karabacak E, Ozturk S. Coldinduced urticaria with systemic reactions after hymenoptera sting lasting for 10 years. Allergol Immunopathol (Madr). 2013; 41(4):283-4. https://doi.org/10.1016/j.aller.2012.05.009
- Mohamed S, Mobayed H. Cold-induced urticaria after black ant bite anaphylaxis. Qatar Med J. 2023;2023(2):5. https://doi.org/ 10.5339/qmj.2023.sqac.5
- Kalogeromitros D, Gregoriou S, Papaioannou D, Mousatou V, Makris M, Katsarou-Katsari A. Acquired primary cold contact urticaria after hymenoptera sting. Clin Exp Dermatol. 2004;29(1):93-5. https://doi.org/10.1111/j.1365-2230.2004.01375.x