

and the total serum IgE level in allergic bronchopulmonary aspergillosis. *J Allergy Clin Immunol.* 1978;62:91–5.

11. Pate MB, Smith JK, Chi DS, Krishnaswamy G. Regulation and dysregulation of immunoglobulin E: a molecular and clinical perspective. *Clin Mol Allergy.* 2010;8:3.

İ. Yılmaz*, Ö. Aydın, S.K. Özdemir, D. Mungan, G. Çelik

Ankara University, School of Medicine, Department of Chest Diseases, Division of Immunology and Allergy, 06100 Dikimevi, Ankara, Turkey

*Corresponding author.

E-mail address: insu2004@yahoo.com (İ. Yılmaz).

<http://dx.doi.org/10.1016/j.aller.2012.05.003>

Cold-induced urticaria with systemic reactions after hymenoptera sting lasting for 10 years

To the Editor,

A 20-year-old man was referred to our allergy and immunology department with the complaints of intense pruritus, generalised erythema and oedema on the trunk, face and extremities after exposure to cold. He had experienced the same symptoms on cold rainy days. The patient reported that all his cold-related complaints had begun 10 years ago shortly after a common wasp sting on his head, which was limited to mild local reaction. Two years after the wasp sting, he experienced a mild anaphylactic reaction (chest tightness, nausea, dizziness, abdominal pain) while standing in a cold river for fishing. Although the patient was able to prevent himself from cold exposure in his civil life, he was unable to avoid cold during his military service and he experienced systemic reaction with chest tightness, nausea, dizziness, abdominal pain while waiting outside for muster on a cold day. The patient was evaluated by cold contact stimulation test (CST) with an ice cube in a plastic bag (3, 5 and 8 min). The test was positive only at 8 min. Other physical urticaria forms were not observed. Laboratory evaluation included complete blood count, erythrocyte sedimentation rate, C-reactive protein, anti-nuclear antibody, rheumatoid factor, antistreptolysin-O, cold agglutinins, cryoglobulins, complement C4, syphilis, hepatitis B and C and HIV serologies, thyroid hormones, thyroid stimulating hormone, and anti-thyroid peroxidase. All laboratory tests were within normal limits. Bee venom-specific IgE were found class II positive for *Apis Mellifera* (1.32 kUA/L), and *Vespula Spp* (1.08 kUA/L).

He was instructed to avoid cold exposure and medical therapy with a second generation antihistamine, desloratadine, was prescribed. After 1 week of antihistamine treatment, his tolerance to cold increased considerably and CST at 8 min was found negative.

Acquired cold urticaria (ACU) induced symptoms are generally restricted to cold-exposed skin areas, however more severe clinical manifestations can be observed in case of extensive cold exposure. Those symptoms may range from generalised urticarial symptoms to systemic reactions affecting respiratory, gastrointestinal or cardiovascular system.¹ ACU is idiopathic in most cases. Insect bite,² jellyfish sting,³ bee and wasp sting⁴ and venom immunotherapy⁵ are reported as trigger factors for ACU. Although the sensitisation to hymenoptera venom is com-

mon, ACU following hymenoptera sting is rarely reported.⁴ Although the prevalence of atopic disorders in patients with ACU was reported similar to the general population¹ high rates of atopy in these patients have also been reported.⁶

The pathogenesis of ACU is still unknown. Histamine is released after cold challenge in ACU patients.⁷ Increased levels of IgE and functional anti IgE antibodies (IgG and IgM) have been demonstrated in patients with ACU.⁸ These may act as a functional autoantibodies and histamine-releasing factors described in some patients with chronic idiopathic urticaria.⁹

ACU generally tends to have a chronic course and the mean duration of symptoms ranges between 4.8 and 9.3 years.¹ However, Kalegeromitros et al. have reported four cases of Hymenoptera sting induced ACU. The severity of the symptoms decreased in time and all cases had complete remission in less than one year.⁴ However, our case had systemic reaction even after 10 years from Hymenoptera sting. It seems that ACU after Hymenoptera sting may last for several years. These patients must be informed that their disease may not disappear in the short term.

Ethical disclosures

Protection of human and animal subjects. The authors declare that the procedures followed were in accordance with the regulations of the responsible Clinical Research Ethics Committee and in accordance with those of the World Medical Association and the Helsinki Declaration.

Confidentiality data. The authors declare that they have followed the protocols of their work centre on the publication of patient data and that all the patients included in the study have received sufficient information and have given their informed consent in writing to participate in that study.

Right to privacy and informed consent. The authors have obtained the informed consent of the patients and/or subjects mentioned in the article. The author for correspondence is in possession of this document.

Conflict of interest

The authors have no conflicts of interest to declare.

References

1. Katsarou-Katsari A, Makris M, Lagogianni E, Gregoriou S, Theoharides T, Kalogeromitros D. Clinical features and natural history of acquired cold urticaria in a tertiary referral hospi-

- tal: a 10-year prospective study. *J Eur Acad Dermatol Venereol*. 2008;22:1405–11.
2. Grattan CEH, Black AK. Urticaria and mastocytosis. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. *Rook's textbook of dermatology*. 8th ed. Oxford: Wiley-Blackwell; 2010. p. 16. p. 22.
 3. Mathelier-Fusade P, Leynadier F. Acquired cold urticaria after jellyfish sting. *Contact Dermatitis*. 1993;29:273.
 4. 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;29:93–5.
 5. Anfosso-Capra F, Philip-Joet F, Reynaud-Gaubert M, Arnaud A. Occurrence of cold urticaria during venom desensitization. *Dermatologica*. 1990;180:276.
 6. Montoya SM, Martinez Molero MI, San Juana SF, Baeza ML, Lebrero AE, Remon ZL. Cold urticaria: review of 12 cases. *Allergol Immunopathol*. 2002;30:259–62.
 7. Nuutinen P, Harvima IT, Ackermann L. Histamine, but not leukotriene C₄, is an essential mediator in cold urticaria wheals. *Acta Derm Venereol*. 2007;87:9–13.
 8. Siebenhaar F, Weller K, Mlynek A, Magerl M, Altrichter S, Vieira Dos Santos R, et al. Acquired cold urticaria: clinical picture and update on diagnosis and treatment. *Clin Exp Dermatol*. 2007;32:241–5.
 9. Grattan CEH, Francis DM, Hide M, Greaves MW. Detection of circulating histamine releasing autoantibodies with functional properties of anti-IgE in chronic urticaria. *Clin Exp Allergy*. 1991;21:695–704.
- A. Kutlu^a, E. Aydin^{b,*}, K. Goker^b, E. Karabacak^b, S. Ozturk^a
- ^a *GATA Haydarpasa Teaching Hospital, Department of Allergy and Immunology, Turkey*
^b *GATA Haydarpasa Teaching Hospital, Department of Dermatovenereology, Turkey*
- * Corresponding author.
E-mail address: eaydin@gata.edu.tr (E. Aydin).
<http://dx.doi.org/10.1016/j.aller.2012.05.009>