

Letter to Editor

Vitamin D levels in patients with chronic spontaneous urticaria

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Dear Sir,

Chronic spontaneous urticaria (CSU) more often affects women and is characterized by episodic wheals accompanied or not by angioedema, with six or more weeks of duration^[1-4] The pathogenesis involves immunological and genetic factors, urticants, drugs, infections, and Vitamin D with receptors on mononuclear cells, and acting on dendritic and T- and B-cells.^[1-4] We read with a special interest the novel article published in this Journal by Dass *et al.*^[1] The authors compared two paired groups of 130 individuals (cases versus controls) to evaluate possible differences between the levels of vitamin D and CSU severity, based on the urticaria activity score 7. They found 14.29 ng/mL in cases and 28.8 ng/mL in controls. Considering that deficient levels were more frequent among cases, and presenting an inverse correlation with the disease severity, the authors commented the role of vitamin D levels on the CSU genesis or exacerbations, and supplementation could improve the clinical outcomes.^[1]

In this setting, some other recent publication have also focused on the favorable effects of this vitamin D, both on prevention and management of clinical manifestations of CSU.^[2-4] Li *et al.* analyzed 17 case-control studies on the relationship between vitamin D levels and urticaria, and concluded that there was a significant association between this disease and the vitamin deficiency.^[2] Worthy of note, a significant improvement of the chronic urticaria manifestations occurred in adult patients after the vitamin supplementation.^[2] Nabavizadeh *et al.* performed a double-blinded study involving two groups of CSU patients using vitamin D during 12 weeks; Group 1: 4200 IU/week, and Group 2: 28000 IU/week.^[3] The Group 1 ($n = 35$, 82.8% female) had a mean age of 40.02 (17–75) years, and the Group 2 ($n = 34$, 85.7% female) had a mean age of 39.94 (18–76) years. The authors concluded that higher dose of vitamin D improves CSU manifestations and reduces the needed medications for allergy.^[3] Zhao *et al.* highlighted the effect that the sera of CSU patients has on the mast

cells production of vascular endothelial growth factor by immunoglobulin E-dependent way, the vitamin D inhibition of the signaling pathway axis, and suggested the vitamin binding protein as a biomarker for CSU.^[4]

The data of herein included studies strongly indicate a beneficial role of vitamin D in CSU, by improving clinical outcomes, and reducing corticosteroids and immunosuppressants. The authors strongly believe that case studies may contribute to enhance the interest of health care workers about the favorable effects of vitamin D on CSU prevention and management.

Authors' contributions

Both authors contributed to the conception and design of the study, acquisition of data, analysis and interpretation of data, drafting the article, and revising it critically for important intellectual content and final approval of the submitted version.

Ethical statement

In writing the manuscript, the authors followed the policy of the Committee on Publication Ethics.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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