LETTER TO THE EDITOR

Vitamin D Levels in Patients with Atrial Fibrillation

Sevket Balta, M.D., Cengiz Ozturk, M.D., Sait Demirkol, M.D.,
Mustafa Demir, M.D., Ali Osman Yildirim, M.D., and Turgay Celik, M.D.

From the Department of Cardiology, Gulhane Medical Academy Ankara, Turkey

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atrial fibrillation; atrial arrhythmias; basic, molecular biology; genetics

Dear Editor,

We read the article “Relation of Low Vitamin D to Nonvalvular Persistent Atrial Fibrillation (AF) in Chinese Patients” written by Chen et al. with a great interest.¹ They aimed to evaluate the association between low vitamin D and AF. They concluded that a difference in vitamin D levels between the AF and non-AF groups. Patients with persistent AF had a lower serum vitamin D than healthy subjects.

Vitamin D is an essential element for musculoskeletal system. Recently there have been several reports that vitamin D plays a role in the pathogenesis of many diseases. Insufficient vitamin D levels were detected in many chronic illnesses, including coronary artery disease,² diabetes mellitus,³ systemic lupus erythematosus, rheumatoid arthritis, multiple sclerosis, psoriasis, malignancy, autoimmune, infectious diseases, and Behcet's disease.⁴ Furthermore, smoking, alcohol intake were related the low vitamin D levels. The vitamin D values are significantly lower in psoriatic patients than in control subjects. Low vitamin D levels are negatively associated with C-reactive protein, an inflammatory activation marker, and with obesity.⁵

Furthermore, some medications such as vitamin, mineral, fatty acid supplementations, oral contraceptive pills, colchicine, steroid hormones (orally or injected), antiepileptic agents, anticoagulants, anti-inflammatory drugs, antihypertensive treatment including angiotensin-converting enzyme inhibitors, angiotensin receptor blocker,

statins, used may influence vitamin D level.⁶ It would be useful and results might be different, if the authors described these factors.

In addition, recently, vitamin D levels have been classified in different studies. Low vitamin D levels are divided into four groups. Insufficiency is under 10 ng/mL values, deficiency is the between 10 and 20 ng/mL values, and hypovitaminosis is between 20 and 30 values. Values between 30 and 80 ng/mL were regarded as normal range.⁷ It is important to give the relation between AF and low vitamin D according to this classification. Also, interassay and intraassay variations should be mentioned in future studies, because it can affect the results of the study.

As a conclusion, patients with persistent AF had a lower serum vitamin D than healthy subjects as presented in current study, however, the level of vitamin D can be affected by many conditions and further studies should be evaluated all of these conditions that can affect the vitamin D level in patients with AF.

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Address for correspondence: Sevket Balta, M.D., Department of Cardiology, Gulhane School of Medicine, Tevfik Saglam St., 06018 Etlik-Ankara, Turkey. Tel: +90-312-3044281; Fax: +90-312-3044250; E-mail: drsevketb@gmail.com, sevkettb@gata.edu.tr

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