



Could anti-TNF treatment have affected HRV and HRT results?

Zafer Yalim¹ · Sümeyra Alan Yalim² · Ersel Onrat¹

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Dear Editor,

We read the article titled “Evaluation of cardiac autonomic nervous system in patients with ankylosing spondylitis using 12-lead electrocardiography and Holter monitoring” by Candemir et al. in the current issue with great interest and curiosity. First of all, we would like to congratulate the authors on this novel study. We saw that both heart rate variability (HRV) and heart rate turbulence (HRT) parameters were impaired in ankylosing spondylitis (AS) [1]. We decided to add some comments about this article that will be helpful.

Our first comment is the drugs used by patients with AS in the study may have an impact on HRT and HRV results. In an earlier experimental study, etanercept, a TNF inhibitor, was found to inhibit cells that provide tyrosine hydroxylase-positive neuron-like cells, which inhibits noradrenaline release [2]. Another study by Holman et al. found that HRV predicted anti-TNF treatment response to treatment in inflammatory arthritis [3]. The effect of anti-TNF treatment on the sympathetic and parasympathetic nervous system, and hence on HRV and HRT, is still unclear. In Candemir et al.’s study, 19 AS patients were receiving anti-TNF therapy, which may have influenced their results. In previous study of Onrat et al., which evaluated 37 patients with AS, there was no significant difference between TO and TS [4]. This difference may be related to the low number of samples in the study of Onrat, or it may be related to the treatment they use.

Compliance with ethical standards

Disclosures None.

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✉ Zafer Yalim
zaferyalim@yahoo.com.tr

Sümeyra Alan Yalim
alansumeyra@gmail.com

Ersel Onrat
eonrat@yahoo.com

¹ Faculty of Medicine, Department of Cardiology, Afyonkarahisar Health Sciences University, 03300 Afyonkarahisar, Turkey

² Department of Internal Medicine, Afyonkarahisar State Hospital, 03300 Afyonkarahisar, Turkey