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LETTER

Non-alcoholic fatty liver disease may be associated with endothelial dysfunction

SEVKET BALTA, SAIT DEMIRKOL, ZEKERIYA ARSLAN, MUSTAFA DEMIR, MURAT UNLU & UGUR KUCUK

Gulhane Medical Academy, Department of Cardiology, Ankara, Turkey

Dear Editor

We read with great interest the article 'Serum gamma glutamyl transferase and alanine transaminase concentrations predict endothelial dysfunction in patients with non-alcoholic steatohepatitis' by Arinc et al. (1). They concluded that patients with non-alcoholic steatohepatitis (NASH) have impaired flow-mediated dilation (FMD) and increased carotid intima media thickness (cIMT) when compared with healthy controls. In patients with NASH, serum concentrations of gamma glutamyl transferase (GGT) and alanine transaminase (ALT) might have a predictive value for FMD and cIMT.

Non-alcoholic fatty liver disease is recognized as the most common and emerging chronic liver disease. However, it has recently been demonstrated that people with non-alcoholic fatty liver have an increased risk of developing cardiovascular diseases, which represent the major cause of death in this setting. NASH is a hepatic manifestation of the metabolic syndrome (MetS) (2). It is also a clinical entity comprising risk factors such as hypertension, glucose intolerance, atherogenic lipid profile, abdominal obesity, lack of physical activity, and increased inflammatory state (3,4). Most recent studies demonstrate that there is a correlation between inflammatory mediators and the components of MetS. Elevated inflammatory indicators such as cIMT and FMD are commonly used to evaluate subclinical inflammation or endothelial dysfunction in coronary artery disease, cerebrovascular disease, peripheral arterial disease, known malignancy, and chronic inflammatory disease such as psoriasis (5). Inflammatory mediators can also be affected by atherosclerotic risk factors such as smoking, alcohol consumption, hypercholesterolemia, and hypothyroidism. In this context, Arinc et al. did not mention some of the factors affecting these markers in their study.

In conclusion, in patients with NASH, serum concentrations of GGT and ALT might have a predictive value for FMD and cIMT as presented in the above-mentioned study. However, because NASH is one component of MetS, future studies should examine all inflammatory factors in patients with NASH.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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Correspondence: Dr Sevket Balta, Department of Cardiology, Gulhane School of Medicine, Tevfik Saglam St, 06018 Etlik-Ankara, Turkey. Fax: +90 312 3044250. E-mail: drsevketb@gmail.com

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