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DOI: 10.1159/000357403**Epicardial Fat Thickness in Psoriasis Patients**Ilknur Balta^a, Sevket Balta^b, Cengiz Ozturk^b, Sait Demirkol^c,
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Dear Editor,

We have read the article ‘Epicardial Fat Thickness Is Independently Associated with Psoriasis’ written by Akyildiz et al. with a great interest [1]. The authors aimed to compare the epicardial fat thickness (EFT) in psoriasis patients with that in control subjects. They concluded that EFT, which has been suggested as a cardio-metabolic risk factor in various diseases, is also independently associated with psoriasis. Thanks to the authors for their contribution of the present study, which is successfully designed and documented.

Epicardial adipose tissue functions as an active endocrine organ that produces several cytokines involved in oxidative stress, atherosclerosis, inflammation and angiogenesis [2]. Various studies have highlighted the potential importance of adipose tissue in relation to inflammatory burden in cardiovascular diseases. EFT is a new parameter that has recently attracted attention as a measure of predisposition to atherosclerosis. Studies have reported that EFT thickness measured using echocardiography is associated with atherosclerosis in patients with coronary artery disease, hypertension, type 2 diabetes, metabolic syndrome, hypothyroidism and chronic kidney disease [3]. Primary hyperparathyroidism affects the cardiovascular system, and EFT is closely associated with cardiovascular diseases and atherosclerosis. EFT may be a useful marker of early atherosclerosis in patients with primary hyperparathyroidism [4]. EFT may be included among the clinical parameters associated with obstructive sleep apnea severity. The association of EFT with obstructive sleep apnea, both cardiovascular risk factors, is independent of obesity as defined by classical measures [5]. EFT amount may contribute to systemic inflammation beyond traditional cardiovascular risks and body fat composition. EFT measured by echocardiography has been known to be associated with metabolic syndrome [6]. Additionally, echocardiography-based EFT measurement was related to several metabolic abnormalities and independently associated with fatty liver disease [7].

Echocardiographic EFT measurement in both clinical and research scenarios has several advantages, including its low cost, easy accessibility, rapid applicability and good reproducibility. However, more evidence is necessary to evaluate whether echocardiographic EFT may become a routine way of assessing cardiovascular risk in a clinical setting [8]. Psoriasis is associated with an increased risk of cardiovascular disease. Endothelial dysfunction is widely regarded as being the initial lesion in the development of atherosclerosis [9]. In a previous study, the authors demonstrated that EFT is increased in patients with psoriasis, and that echocardiographic EFT is closely correlated with surrogate inflammatory markers such as carotid intima media thickness in patients with psoriasis [10]. The echocardiographic assessment of EFT may have the potential to be a simple marker of subclinical atherosclerosis and increased cardiovascular risk in patients with psoriasis [10].

The gold standard in assessing EFT is magnetic resonance imaging (MRI); the lack of MRI use is one of the limitations of the present study. Although EFT by echocardiography has natural errors in comparison with computed MRI, EFT measurement with echocardiography has several advantages, including its inexpensiveness, easy accessibility, rapid applicability and good reproducibility. However, echocardiography cannot be the optimal technique for quantification of epicardial fat. Since echocardiography measures EFT linearly and EFT has a three-dimensional distribution, two-dimensional echocardiography may not give adequate information about the total epicardial fat volume [11]. Also, EFT was calculated on the free wall of the right ventricle in the still images obtained at end diastole on both parasternal long-axis and short-axis views. The anterior echolucent space between the right ventricle outer wall and the linear echodense parietal pericardium was considered to be epicardial fat. When EFT is measured, mediastinal fat, presenting as an echolucent area above the parietal pericardium, should be excluded. Also, the mean value of two images obtained in the parasternal long-axis and short-axis views should be calculated. Additionally, it would be better to give inter- and intraobserver variability for epicardial adipose tissue measurement in the current study [12].

As a conclusion, EFT itself without other inflammatory markers may not provide information to clinicians about systemic inflammation [13]. Thus, we think that it should be evaluated together with other serum inflammatory markers. We believe that these findings will evaluate further studies about EFT in psoriasis patients.

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