Can epicardial adipose tissue predict coronary artery plaque?

To the Editor,

We read with great interest the manuscript written by Çullu et al. (1) titled "Does epicardial adipose tissue volume provide information about the presence and localization of coronary artery disease?" published in the May 2015 issue of Anatol J Cardiol 2015; 15: 355-9. In that study, authors investigated the relationship between the epicardial adipose tissue (EAT) volume and the atherosclerotic coronary artery plaques evaluated by computed tomography (CT). In this study, EAT volumes were found to be significantly higher in patients with coronary plaques than in patients without plaques. Furthermore, the left anterior descending (LAD) artery and multivessel located coronary atheromatous plaques were associated with higher EAT volumes than other coronary artery locations as well as with the absence of coronary plaques. One of the most important finding in this study is that the frequency of

diabetes mellitus (DM), hypertension (HT), and dyslipidemia were found to be significantly higher not only in cases with plaque but also in cases with increased EAT volume.

Similar results were shown in studies that evaluated the relationship between EAT and DM, HT, and hyperlipidemia (2-4). However, it is not clear whether EAT volume could predict the presence of plaque in coronary arteries in the current study (1). Both EAT volumes and risk factors for atherosclerosis, including DM, HT, hyperlipidemia, and age, are higher in patients with coronary plaque. Thus, in that case, multivariate regression analysis should be made to adjust for the confusing effects of these risk factors. It is impossible to say that "EAT volumes predict the presence of coronary plaque and plaque-involved vessels." If the EAT volume is found as an independent predictor for coronary plaque after regression analysis, the ROC analysis can be used to determine the cut-off value. Otherwise, it would be more appropriate to say that EAT volume is a "risk factor" for coronary plaque. Finally, coronary artery calcium (CAC) scores were written as mean±standard deviation, such as 53.4±138 and 80±163, in Table 1. We think that CAC score does not show the normal distribution; therefore, it should be represented as median with minimum and maximum range.

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