Left ventricular global longitudinal strain rate is influenced by stable coronary artery disease

To the Editor,

We have read with great interest the article published by Doğduş et al. (1) about the relationship between subclinical left ventricular dysfunction and body mass index. Three-dimensional left ventricular strain echocardiography assessments have shown that overweight and obese patients have worse left ventricular function than normal controls (1).

Left ventricular strain imaging is an important tool to assess subclinical left ventricular dysfunction. Stable coronary artery disease (SCAD) is characterized by ischemic symptoms occurring with exercise or emotional or other stressful conditions and symptoms relief with rest (2). Radwan and Hussein (3) have demonstrated that left ventricular global longitudinal strain rate is worse in patients with SCAD than in those without SCAD. Also, left ventricular global longitudinal strain rate is associated with the severity of coronary artery disease (3). "SCORE" is a cardiovascular disease predicting score and is used to predict the patients who have potential risk to have coronary artery disease. Age and sex are the two parameters assessed in SCORE chart (4).

It is seen that the male to female ratio and age parameters are significantly different between overweight, obese, and normal groups in the study. Both age and male sex rates are lower in the normal group. As these two parameters are important predictors of coronary artery disease and although established coronary artery disease is an exclusion criteria, there may be difference between groups with regard to the presence of SCAD.

To conclude, SCAD is an important factor that affects left ventricular global longitudinal strain rate. Therefore, it would be better to either question patients about symptoms indicating SCAD or assess them using SCORE chart to evaluate the potential coronary artery disease risk. Undiagnosed SCAD might have influenced the results.

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