

Authors reply

To the Editor,

We reported a relationship between serum gamma-glutamyltransferase (GGT) and burden of atherosclerosis in patients with acute coronary syndrome (ACS) in the June 2013 issue of Arch Turk Soc Cardiol.^[1] We read with interest the letter to the editor about our article by Dr. Koza et al.^[2] We thank them and reply to their interesting comments on our article.

As they pointed out, although the exact mechanism is still unclear, the level of GGT is an independent risk factor for the development of coronary artery disease (CAD) and morbidity and mortality of CAD.^[3] They noted the contribution of some metabolic risk factors such as hypertension, dyslipidemia and diabetes to explain an association between GGT and CAD.^[4] They suggested that only serum GGT levels, without other inflammatory markers, may not provide information to clinicians about the burden of atherosclerosis. However, as Dr. Bozbaş noted in the same issue of the journal as an editorial comment, we knew high serum GGT concentrations, independent of hepatic disease and alcohol consumption, were associated with atherosclerotic vascular disease and related conditions.^[5,6] GGT activity has been observed in coronary atherosclerotic plaques, and serum GGT is a marker of oxidative stress and inflammation.^[7] Serum GGT can trigger the oxidative stress within plaque and contribute to the vulnerability and evolution of the plaques.^[7] Elevated serum GGT concentration is an independent cardiac risk factor and predicts cardiovascular events, non-fatal myocardial infarction and cardiac mortality in unselected populations, in patients with history of myocardial infarction, and in patients with ACS after adjusting for other known CAD risk factors as well as alcohol consumption.^[3,8]

The authors pointed out an effect of body mass index (BMI), smoking and drugs on serum GGT levels. Unfortunately, we did not evaluate BMI or the history of drug use.

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