

# Prevalence of Metabolic Syndrome in Young Patients with ST-Elevation Myocardial Infarction

Dear Editor,

I read with interest the outstanding study by Oz *et al.*<sup>[1]</sup> on the prevalence of metabolic syndrome (MS) in Turkish young patients with ST-elevation myocardial infarction (STEMI). On employing the National Cholesterol Education Program Adult Treatment Panel III (NCEP-ATP III criteria), the authors found a high prevalence of MS (46.8%), and the most frequent component of MS was low high-density lipoprotein level (84.8%) followed by elevated triglycerides (78.1%).<sup>[1]</sup> I presume that these results ought to be cautiously interpreted. Apart from many limitations addressed by the authors, namely single-center study, not searching to examine the long-term clinical outcomes of all the studied patients, and lack of detailed assessment of vessels lesions, I presume that the following methodological limitation might be further relevant. This limitation is related to the MS definition criteria employed in the study. The impact of this limitation could be addressed in two aspects. On the one hand, there are many definition criteria for MS in the clinical setting and researches. These include the following: NCEP-ATP III; the International Diabetes Federation (IDF); the American Heart Association (AHA), and the World Health Organization (WHO). There is a global confusion on the precision of these criteria to diagnose MS. For instance, in a Turkish study, comparing the prevalence of MS among obese children and adolescents using WHO and NCEP-ATP III guidelines showed that 24% of the subjects were diagnosed as MS according to the NCEP while 38.8% were diagnosed according to the WHO-defined MS. The study recommended using WHO guidelines in the diagnosis of MS as this might detect more patients with MS and lead to better monitoring of them and prevention of their future sequelae.<sup>[2]</sup> In another Italian study, evaluation of three criteria, namely NCEP-ATP III, IDF, and AHA, showed that the prevalence of MS was significantly estimated higher on employing the AHA and IDF as compared to the ATP III definition and that AHA and IDF definitions were found more sensitive than that of ATP III in diagnosing MS.<sup>[3]</sup> On the other hand, the ATP III criteria employed in Oz *et al.*'s study<sup>[1]</sup> are old and are no more worthy as they were set nearly a decade ago.<sup>[4]</sup> As many national associations have proposed their own diagnostic MS criteria,<sup>[5]</sup> I presume that constructing national Turkish MS definition criteria could better determine the prevalence of MS in patients with various health disorders. Despite the above-mentioned limitations, the study results urge the need for strict actions to reduce the future risk of cardiovascular consequences in patients with STEMI.

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## Conflicts of interest

There are no conflicts of interest.

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