Reply to Letter to the Editor

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To the Editor

Asymmetric dimethylarginine is not a good predictor of ischemia using myocardial perfusion scintigraphy: Response to Korkmaz et al.

Nuclear medicine techniques provide functional imaging, while other radiologic techniques such as intracoronary angiography (ICA) reflect vascular anatomy. Hybrid imaging techniques are currently improving and becoming more important modalities because functional and anatomical imaging have complementary value for each other. The patient who has endothelial dysfunction manifested in positive myocardial perfusion imaging (MPI) but negative ICA actually has adverse cardiovascular outcomes (1). If we accept ICA as the gold standard, we have to evaluate MPI as false positive and we are going to ignore adverse outcomes in this patient. It is well known that there are some other entities manifested with the same results such as microvascular diseases, which are negative on ICA. There is also a fourfold increase in cardiovascular risk for those who have positive MPI but normal ICA (1). It is true that "several studies have shown that high ADMA levels cause atherosclerosis and play an important role in the pathogenesis of coronary artery disease (CAD)", but we reported about detecting functional ischemia at the time of exercise and we think that is a different entity from atherosclerosis.

There are also reasons that cause false negative and positive results in MPI such as balanced multivessel disease (1) and attenuations and other artifacts respectively. Of course, it would be better if all our patients underwent ICA since functional and anatomical images have complementary (but not confirmatory) results on each other. However, it is well known that we are going to be exposed to ethical problems if we perform ICA in normal MPI patients; therefore, it is impossible to perform ICA in all patients.

References

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