

fested a statistically significant relationship between smoking and the heart rate recovery index (HRRI) even though the study population was small in number.

HRRI, which is indicator of the autonomic nervous system (ANS), is not routinely evaluated in daily clinical practice even though it is an independent risk factor for cardiovascular (CV) diseases. Several studies have shown that HRRI plays an important role in all-cause mortality and CV events (2, 3). The authors have done a good job by investigating the relationship between HRRI and smoking because the potential harmful effects of smoking on the autonomic nervous system apart from those on the vascular biology needed to be proved. HRRI calculation is a simple and beneficial way to evaluate autonomic nervous system function. Therefore, this trial will help us understand the harmful effects of smoking on ANS using HRRI.

To our knowledge, HRRI is calculated by extracting the heart rate during the 1st, 2nd, 3rd, and 5th minutes after finalizing the test from the patient's maximum heart rate during exercise. However, the authors have described HRRI in the "Introduction" section as being calculated by extracting the maximum heart rate from the heart rate in the 1st, 2nd, 3rd, and 5th minutes in the post-exercise period. In case of this type calculation, the study results will change, and it will forward us wrongly. I wonder if it was miswritten or miscalculated in this article. I wanted to emphasize on the importance of right usage of medical formulas.

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References

1. Erat M, Doğan M, Sunman H, Asarcıklı LD, Efe T, Bilgin M, et al. Evaluation of heart rate recovery index in heavy smokers. *Anatol J Cardiol* 2016; 16: 667-72.
2. Vivekananthan DP, Blackstone EH, Pothier CE, Lauer MS. Heart rate recovery after exercise is a predictor of mortality, independent of the angiographic severity of coronary disease. *J Am Coll Cardiol* 2003; 42: 831-8.
3. Morshedi-Meibodi A, Larson MG, Levy D, O'Donnell CJ, Vasan RS. Heart rate recovery after treadmill exercise testing and risk of cardiovascular disease events (The Framingham Heart Study). *Am J Cardiol* 2002; 90: 848-52.

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Evaluation of heart rate recovery index in heavy smokers

To the Editor,

I read the article entitled "Evaluation of heart rate recovery index in heavy smokers" by Erat et al. (1), which has been recently published in *Anatolian Journal of Cardiology* 2016; 16: 667-72, with great interest. The authors have successfully mani-