

## Effects of energy drinks on blood pressure, heart rate, and electrocardiographic parameters: an experimental study on healthy young adults

To the Editor,

I have read the article entitled "Effects of energy drinks on blood pressure, heart rate, and electrocardiographic parameters: an experimental study on healthy young adults" by Hajsadeghi et al. (1), which was recently published in the *Anatolian Journal of Cardiology* 2016; 16: 94-9, with great interest. The investigators reported that energy drink consumption could contribute to heart rate decrease and ST-T changes in healthy young adults. In addition, systolic and diastolic BP and other ECG parameters do not significantly change after the energy drink consumption (1).

There were conflicting results about the relationship between heart rate response and energy drink consumption (2, 3). Authors implied that the possible mechanism underlying the heart rate decrease was related to an increase in the stroke volume and enhancement of the myocardial contractility after the energy drink consumption (1). Authors claimed that excessive catecholamine release after energy drink consumption is the mechanism underlying the significant ST-T changes (1). It is well known that heart rate

increase is an essential effect of catecholamine release. The possible reason underlying these conflicting results is related to the follow-up duration and amount of energy drink consumed (2, 3).

In addition, there was no data regarding smoking history or current smoking status. The vasopressor and tachycardia effects of smoking are associated with an increase in the plasma catecholamine concentration (4). Likewise, there was a strong relationship between heart rate variability and smoking (5).

In the light of this knowledge, authors should mention regarding the smoking habits of participants. Moreover, the follow-up duration and amount of energy drinks consumed should be standardized.

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### **References**

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