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Author's Reply

To the Editor,

We would like to thank the authors of the letter for their interest and criticism on our study entitled "Heart rate variability improvement in children using transcatheter atrial septal defect closure" published in *Anatol J Cardiol* 2015 Mar 4 (1).

Heart rate variability is a parameter used for the non-invasive evaluation of the neurohumoral control of the heart. One study reported reduced measurements of HRV in children with various congenital heart diseases (2). In another study, it has been shown that the dilatation of RV can decrease for up to 5 years after ASD closure (3). Some studies have published the normalization of RV size during the first 24 months after device closure (4). There may be other factors that affect the cardiac autonomic function besides atrial septal defect as the author mentions. However, Cansel et al. (4) found that the right ventricular diameter and pulmonary artery systolic pressure significantly decreased 6 months after transcatheter closure compared with values measured before transcatheter closure in patients with ASD. In our study, we concluded that HRV in children recovers approximately 6 months after transcatheter ASD closure. We did not report the dimensions of cardiac chambers before and after transcatheter closure. In our article, HRV after transcatheter ASD closure was compared with that of the control group. We did not declare that heart chambers reached normal values in 6 months. In our study, the 6th month HRV of patients who underwent transcatheter ASD closure approached the levels of the control group (1). HRV and reaching normal levels of right ventricular measurements are two different things. HRV could return to the normal range before the normalization of heart cavity due to hemodynamic improvement after transcatheter closure.

Our study was designed using the heart rate variability data of Holter ECG in the previously published "Holter Electrocardiographic Findings and P-wave Dispersion in Pediatric Patients with Transcatheter Closure of Atrial Septal Defects" study. A previously published part of this study was not used the heart rate variability data (5). Patient information [mean±SD, pulmonary artery pressure (mm Hg), Qp/Qs ratio, stretched diameter of ASD (mm), device defect ratio, device diameter (mm): 20.8±4.4, 2.1±0.4, 16.8±3.8, 1.3±1.4, 19±4.2, respectively] were not written again because they were declared in this previously published study (1).

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