Dear Editor,

Heart rate variability (HRV) is a noninvasive electrocardiographic marker reflecting the activity of the sympathetic and vagal components of the autonomic nervous system on sinus node function. It expresses the total amount of variations of instantaneous heart rate. Thus, HRV analyzes the tonic baseline autonomic function. A predominance of sympathetic tone in cardiac activity induces tachycardia and reduces beat-to-beat variations, whereas parasympathetic nerve activity reduces heart rate and increases HRV. Spectral analysis of HRV has been used to explore dynamic mechanisms in the cardiovascular system and appears to provide a quantitative evaluation of the sympathovagal interaction that modulates cardiovascular function in several clinical conditions. We read with interest the report of Matei et al. about the cardiac autonomic function in subjects with and without migraine by using 24-hour ambulatory electrocardiographic recordings. The study showed a reduced parasympathetic activity with sympathetic predominance in migraine patients during the night period, most affected being migraine with aura patients. We suggest to better underline the exclusion criteria of the study population. The presence of diabetes mellitus, uncontrolled hypertension, documented cardiovascular disease, narcolepsy, sleep apnea requiring continuous positive airway pressure therapy, obesity hypoventilation syndrome, chronic respiratory disease, thyroid disease, or some medications (i.e., sex steroid hormones, antidepressants, appetite suppressants, converting enzyme inhibition, β-blockers, L-thyroxine) may influence the autonomic nervous system and could have induced bias in the results. Matei et al. did not give any information about the length of time or quantity of active smoking or exposure to environmental tobacco smoke, all factors of great importance for the vagal heart modulation. Furthermore, only women aged 20 to 35 years were enrolled in the study, but no information about the fertility state was shown. For their young age (26.7 ± 2.12 years), we suppose that nobody of the all enrolled women was in menopausal state; however, we suggest to evaluate the possible correlation between cardiovascular autonomic indexes and some sex hormones (i.e. estradiol, follicle-stimulating hormone, testosterone and dehydroepiandrosterone sulfate), so adding strength to their findings.

Conflict of Interest

The Authors declare that they have no conflict of interests.

References


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