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Heart Rate Recovery Index in Patients with Psoriasis

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Dear Editor,

We read with great interest the recently published article entitled 'Heart Rate Recovery Is Impaired in Patients with Psoriasis' by Sarli et al. [1]. In that very well-presented article, they proposed a relationship between psoriasis and the heart rate recovery index. They concluded that heart rate recovery was lower in patients with psoriasis. Given the prognostic value of this test, patients with psoriasis might be at risk for future cardiovascular events and cardiovascular mortality.

Psoriasis is a chronic inflammatory proliferative skin disorder. It is diagnosed based on a variety of immunologic and inflammatory changes. The role of chronic inflammation that causes metabolic and vascular disorders is increasingly recognized [2]. It is speculated that increased inflammation of psoriasis contributes to atherogenesis, peripheral insulin resistance and the development of hypertension and coronary artery disease [3]. Neural stimulation of the cardiovascular system is under the control of the autonomic nervous system. There is increasing recognition of the relationship between the autonomic nervous system and adverse cardiovascular events. Heart rate variability (HRV) is one of the most common and useful tests to determine autonomic control of the heart [4]. Decreased HRV may estimate the cardiovascular mortality rate. Cardiovascular risk factors like hypertension, diabetes

mellitus, hyperlipidaemia, alcohol consumption, smoking habits and kidney disease may impair HRV.

Furthermore, abnormalities of the autonomic system caused by some conditions such as thyroid dysfunction and electrolyte disorders can lead to impaired HRV. Additionally, respiratory diseases such as chronic obstructive pulmonary disease (COPD) are associated with cardiac autonomic dysfunction. COPD patients with moderate and severe disease have abnormal cardiac autonomic modulation which is related to both systemic inflammation and lung function impairment in psoriasis patients [5]. HRV can be correlated with the severity of the disease, knowing that dysfunction in the autonomic nervous system can lead to potentially fatal arrhythmias. Understanding the role of HRV in the evolution of COPD could be important in clinical practice and should be used more frequently.

Finally, physical fitness and activity levels are known to change HRV parameters. This situation should be considered and examined in further studies. From this point of view, the results of the study would be stronger if the authors had evaluated subjects in terms of these factors.

References

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