

The Use of Heart Rate Variability in Physiology

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EDITORIAL

This special number of the *Journal of Cardiology and Therapy* discuss cardiac autonomic regulation in different conditions specifically analyzed through heart rate variability (HRV), which evaluates instantaneous oscillations in heart period over time^[1].

The use of this method was previously validated in physiological experiments^[2,3]. The mentioned studies performed pharmacological stimulation of the sympathetic and parasympathetic nervous systems and made relationship with the traditional time and frequency domain analysis of HRV, confirming the use of this non-invasive method to evaluate cardiac autonomic regulation. Furthermore, HRV has also been used to predict mortality after cardiac events^[4], it has been considered as a marker of stress^[5] and psychopathology, to stratify attention^[6].

In this issue of the journal we invited researchers from

laboratories that are working with HRV in different situations to write reviews on their specific area of knowledge. Porto *et al* describe the relationship between high intensity training protocols and its effects on cardiac autonomic regulation. They selected updated manuscripts and showed that the level of intensity and volume influences HRV.

Igreja and coworkers presented the behavior of cardiac autonomic modulation during weaning. The authors grouped a number of manuscripts that indicated reduced HRV and vagal withdrawal in patients with failure weaning.

Gomes *et al* review showed the relationship between cardiac autonomic regulation and musical auditory stimulation. It was presented that HRV is acutely influenced by music depending on the music style.

Godoy performed an elegant review that described non-linear analysis of HRV, presenting a very recently publication of the European Society of Cardiology together with the European Heart Rhythm Association and co-endorsed by the Asia Pacific Heart Rhythm Society.

And finally but not less important, da Silva *et al* focused on resistance training and autonomic modulation in the elderly. After a careful review, they found that there is not still a clear effect of resistance training on HRV in the elderly.

In this sense, this special issue of the *Journal Cardiology and Therapy* focused on the use of HRV in different physiological situations. The editorial board wish you a good read.

CONFLICT OF INTERESTS

There are no conflicts of interest with regard to the present study.

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