

Special Issue on
Heart Rate Variability and Cardiovascular Diseases (CVD)

CALL FOR PAPERS

The concept of “sympathovagal balance” reflects the autonomic state resulting from the sympathetic and parasympathetic influences. Heart rate variability parameters are indexes of sympathovagal balance or imbalance. Temporal fluctuations in cardiac cycles are mainly determined by the activity of sympathetic and parasympathetic systems innervating the heart. HRV is defined as fluctuations of the sinus rhythm that are affected by internal and external factors of the body.

In recent years, an increasing number of studies have related the imbalance of the autonomic nervous system (as assessed by HRV) to several pathophysiologic conditions, particularly in the setting of cardiovascular disease (CVD). Sudden death, coronary artery disease, heart failure, and cardiovascular risk factors (smoking, diabetes, hyperlipidemia, and hypertension) are the best-known clinical circumstances that can affect or be affected by the autonomic nervous system. Analyses of HRV variables have been proposed as a component of the clinical evaluation for patient risk stratification because of the independent prognostic information these variables provide. Yet the wide use of HRV in clinical practice remains to be established. Also, the recent studies reported the profitable effects of some complementary medicine applications such as acupuncture, wet cupping therapy, foot reflexotherapy and footbath therapy.

Risk factors for CVD, including arrhythmias, myocardial infarction, and stroke, involve hyperlipidemia, hypercholesterolemia, diabetes mellitus (DM), hypertension, and some inherited coagulation disturbances. Having the combination of situations that constitute metabolic syndrome (e.g., hypertension, DM, reduced HDL, and high triglyceride levels) leads to an individual at high risk for CVD. It would be very interesting to see if there is a direct relationship between metabolic syndrome and heart rate variability because plasmatic cholesterol changes have been found to be determinant of increasing sympathetic modulation and coagulation.

The aim for this special issue is to highlight the importance and practicality of the heart rate variability tests in clinical applications specially to diagnose the cardiac pathologies and to follow the medical treatments. Therefore, submissions on the following topics will be especially welcomed.

Potential topics include but are not limited to the following:

- ▶ Heart rate variability and cardiac function in patients with ischemic heart failure
- ▶ The effectors of heart rate variability in terms of Complementary Medicine
- ▶ Heart variability studies in Sport Medicine
- ▶ The connection between heart rate variability and hypercholesterolemia and hyperlipidemia
- ▶ Heart rate variability studies in patients with Diabetes Mellitus
- ▶ Heart rate variability and familial risk factors
- ▶ Heart rate variability and arrhythmias
- ▶ Heart rate variability studies in patients with coagulation disease
- ▶ Beat-to-beat blood pressure variability
- ▶ Noninvasive measures of baroreflex function

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/crp/hrvc/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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