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HEART RATE ASYMMETRY – METHODS AND RESULTS

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ABSTRACT

We present the main methods and results of Heart Rate Asymmetry (HRA). HRA is both a new physiological phenomenon and a collection of mathematical methods for studying it in the time series of RR intervals. The fundamental methods include the partitioning of total variance into contributions from accelerations and decelerations, the Porta index and the monotonic runs metod. There are also more complex approaches like the Asymmetric Detrended Fluctuation Analysis or multiscale approaches as well as approaches to studying time-irreversibility of the RR-intervals time series e.g. PRSA.

All of these methods are physiologically relevant, and the PRSA and monotonic runs methods have independent prognostic value in patients after myocardial infarction and in patients with clinically indicated exercise tests.

REFERENCES

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