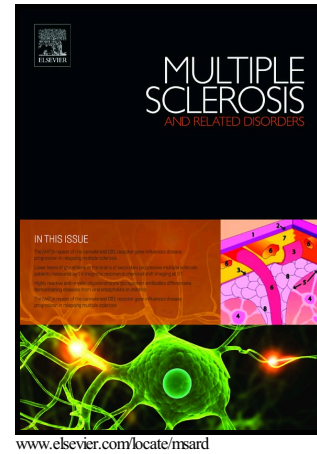


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Characterisation of cardiac autonomic function in multiple sclerosis based on spontaneous changes of heart rate and blood pressure

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## Abstract

### *Background*

Prevalence of cardiovascular autonomic dysfunction (CAD) in multiple sclerosis (MS) varies between studies. Cardiac autonomic function is usually assessed by cardiovascular reflex tests. We hypothesised that MS is associated with CAD, quantifiable by non-invasive means including quantification of baroreceptor sensitivity (BRS) and heart rate variability.

### *Methods*

In this study a comprehensive suite of cardiovascular autonomic tests based only on the spontaneous changes of heart rate and blood pressure was applied to 23 MS patients and age and gender-matched controls. From 5-minute continuous non-invasive recording of the electrocardiogram and blood pressure, heart-rate, blood pressure, and autonomic function variables were calculated. Analysis included heart rate variability in the time domain, heart rate

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