Heart Rate Variability Changes during Stroop Colour and Word Test

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Background

Stress is a reaction of the body to any change that requires physical, mental or emotional adjustments. Individual differences in stress reactivity have been proposed as a potentially important risk factor for genderspecific health problems in men and women. The Autonomic regulation of the cardiovascular system is most commonly affected and is assessed by means of spectral analysis of short term heart rate variability (HRV). HRV was measured in time and frequency domain parameters.

Aims & Objectives

To investigate the cardiovascular Autonomic Nervous System response to a mental stressor among young adults.

Material & Methods

Fifty male and female subjects (19-23 years) were asked

to perform the Stroop Word and Colour test for Five minutes. ECG and Blood Pressure recording was done during this period. The mean RR interval, Blood pressure and indices of HRV before and after the Stroop Word and Colour Test were compared. The results were statistically analysed.

Result

The Stroop Word and Colour Test showed significant changes in Blood Pressure and Mean RR interval.

Conclusion

HRV parameters seem to be unaffected by the test.