

P-1353 - ADHD DOES NOT AFFECT CARDIAC VAGAL ACTIVITY DURING SLEEP

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Introduction: Several studies reported increased cardiac sympathetic activity in ADHD patients and increased mortality with treatment. In contrast, others did not find differences for heart rate variability (HRV) in comparison to healthy controls. Sleep disorders were often associated to ADHD.

Objectives: We tested whether HRV components and the link between cardiac vagal activity and delta sleep EEG were altered in patients suffering from ADHD but without sleep disorders.

Aims: ADHD without sleep disorders did not affect cardiac vagal activity.

Methods: 10 men, diagnosed ADHD by a psychiatrist and using Conners and Wender-Utah rating scales, were matched for age and BMI with healthy men. All subjects were medication-free and did not suffer from somatic or psychiatric conditions. Sleep was recorded across three successive nights. ECG and EEG of the three first NREM-REM cycles were computed to obtain spectral components of HRV and sleep delta power. Coherence analysis was applied to measure the link between cardiac vagal activity and delta.

Results: Patients demonstrated lower sleep efficiency and larger REM duration. During the first 3 cycles, NREM, REM and awake durations were similar between groups. RR-Intervals decreased from NREM to REM and awake for controls and from NREM to awake for patients. The spectral cardiac vagal components of HRV were similar between groups and decreased from NREM to REM and awake. ADHD patients did not demonstrate differences for coherence analysis in comparison to controls.

Conclusions: Patients suffering from ADHD without sleep disorder did not show altered cardiac sympatho-vagal influence across the night.