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Brain arousal regulation in adults with attention-deficit/hyperactivity disorder (ADHD)

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Abstract

The main aim of the current study was to test the hypothesis that adult patients with attention-deficit/hyperactivity disorder (ADHD) have less stable brain arousal regulation than healthy controls. We objectively assessed brain arousal regulation using the Vigilance Algorithm Leipzig (VIGALL 2.1) to analyze 15-min resting EEG data of thirty-three ADHD patients and thirty-five matched controls. Based on automatically classified 1-s segments we computed mean EEG-vigilance (indexing arousal level) and arousal stability score (indexing arousal regulation). Adult ADHD patients showed significantly lower arousal levels and significantly less stable brain arousal regulation than controls. Multiple regression analysis indicated that

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