The Trend in Morning Levels of Salivary Cortisol in Children with ADHD during 6 Months of Methylphenidate Treatment.

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Abstract

OBJECTIVE:
To determine the trend in cortisol levels in children with ADHD treated with methylphenidate (MPH) and nontreated healthy controls over a 6-month period.

METHOD:
The morning salivary cortisol levels of 50 patients with ADHD (40 boys and 10 girls, mean age = 7.6 years) and 50 age- and gender-matched healthy controls were measured at baseline and at 1, 3, and 6 months from baseline. The neuropsychological performance of the ADHD patients was measured via administration of the Continuous Performance Test.

RESULTS:
The cortisol levels of ADHD patients increased significantly after 1 month of MPH treatment before decreasing to an intermediate level, but were significantly positively correlated with neuropsychological performance throughout the 6-month treatment period. The cortisol levels of the controls did not change significantly over the 6-month period.

CONCLUSION:
MPH administration appears to positively influence the functioning of the hypothalamic-pituitary-adrenal axis in ADHD patients.