

# **Serum levels of cortisol, dehydroepiandrosterone, and oxytocin in children with attention-deficit/hyperactivity disorder combined presentation with and without comorbid conduct disorder**

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## **Abstract**

The present study aimed to investigate serum cortisol, dehydroepiandrosterone (DHEA), and oxytocin levels of children with attention-deficit/hyperactivity disorder (ADHD) combined presentation and those diagnosed with ADHD combined presentation and coexisting conduct disorder. A total of 74 drug-naïve children with ADHD combined presentation alone, 32 children with ADHD combined presentation + conduct disorder, and 42 healthy controls were included. The severities of ADHD and conduct disorder symptoms were assessed via parent- and teacher-rated questionnaires. The severity of aggression, anxiety, and depression symptoms of the children were assessed by the self-report inventories. Independent of potential confounders, including age, sex, pubertal stage, and severity of depression and anxiety, serum oxytocin levels of the ADHD combined presentation + conduct disorder group were significantly lower than those of both the ADHD combined presentation alone and control groups. There was also a trend for the ADHD combined presentation + conduct disorder group to show lower serum DHEA levels than that of the ADHD combined presentation alone group. However, serum cortisol levels did not show significant alterations among the groups. These findings suggest that oxytocin and DHEA may play a role in the pathophysiology of conduct disorder, at least in the presence of ADHD combined presentation.