The influence of comorbid asthma on the severity of symptoms in children with attention-deficit hyperactivity disorder.

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Abstract

OBJECTIVE:
The current study examined the association between asthma and attention-deficit hyperactivity disorder (ADHD) symptoms in a clinical pediatric sample.

METHODS:
Demographic and neuropsychological data for children with a billing diagnosis of ADHD were extracted from a clinical database. Families completed standard rating scales. Seventy-one patients with a co-morbid asthma diagnosis were identified and matched by age to a group of 71 patients with only ADHD.

RESULTS:
Children with asthma and ADHD were more likely to display clinically elevated levels of hyperactivity, externalizing behaviors, anxiety, and hyperactive/impulsive behaviors compared to children with ADHD alone. Boys with asthma and ADHD had more symptoms than boys with only ADHD of somatization and emotional internalizing, while girls with asthma and ADHD had more symptoms of hyperactivity/impulsivity, conduct problems, anxiety, and emotional internalizing compared to girls with only ADHD.

CONCLUSIONS:
Findings suggest that in children with ADHD, co-morbid asthma is associated with increased behavioral and internalizing symptoms, with distinct gender differences present. Increased behavioral and internalizing symptoms seen in children with both asthma and ADHD may be due to the burden of their medical condition. No difference was found on cognitive variables, suggesting chronic hypoxia may be less influential in explaining these differences. Future research should determine the specific mechanisms of these differences.