

Anxiety and Mood Disorder in Children with Autism Spectrum Disorder and ADHD

Eliza Gordon-Lipkin, Alison R. Marvin, J. Kiely Law, Paul H. Lipkin

Pediatrics. Vol. 141 No. 4 April 01, 2018 e20171377
doi: 10.1542/peds.2017-1377

Abstract

OBJECTIVES:

Autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD) frequently co-occur. Understanding the endophenotype of children with both ASD and ADHD may impact clinical management. In this study, we compare the comorbidity of anxiety and mood disorders in children with ASD, with and without ADHD.

METHODS:

We performed a cross-sectional study of children with ASD who were enrolled in the Interactive Autism Network, an Internet-mediated, parent-report, autism research registry. Children ages 6 to 17 years with a parent-reported, professional, and questionnaire-verified diagnosis of ASD were included. Data were extracted regarding parent-reported diagnosis and/or treatment of ADHD, anxiety disorder, and mood disorder. ASD severity was measured by using Social Responsiveness Scale total raw scores.

RESULTS:

There were 3319 children who met inclusion criteria. Of these, 1503 (45.3%) had ADHD. Comorbid ADHD increased with age ($P < .001$) and was associated with increased ASD severity ($P < .001$). A generalized linear model revealed that children with ASD and ADHD had an increased risk of anxiety disorder (adjusted relative risk 2.20; 95% confidence interval 1.97–2.46) and mood disorder (adjusted relative risk 2.72; 95% confidence interval 2.28–3.24) compared with children with ASD alone. Increasing age was the most significant contributor to the presence of anxiety disorder and mood disorder.

CONCLUSIONS:

Co-occurrence of ADHD is common in children with ASD. Children with both ASD and ADHD have an increased risk of anxiety and mood disorders. Physicians who care for children with ASD should be aware of the coexistence of these treatable conditions.