

Stimulant Withdrawal in a Child with Autism Spectrum Disorder and ADHD - A Case Report.

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Abstract

OBJECTIVE:

To consider whether the concepts of tolerance and withdrawal to stimulant medications apply to a preadolescent female, affected by autism spectrum disorder (ASD) and treated for associated attention-deficit/hyperactivity disorder (ADHD).

METHODS:

We describe the case history and review scientific English language literature pertaining to acute withdrawal effects associated with methylphenidate and amphetamine derivatives in children.

RESULTS:

An 11-year-old female with ASD and ADHD referred to our clinic experienced vomiting, headaches, and light sensitivity following abrupt discontinuation of methylphenidate; she subsequently presented with migraines and marked malaise immediately after a dose reduction in lisdexamfetamine. Evidence supports the notion that ADHD symptoms in children with ASD can be effectively treated with methylphenidate; however, beneficial effects are less robust relative to children with a primary ADHD diagnosis. Children affected by ASD are also more susceptible to adverse effects. Literature on withdrawal from stimulants in children is limited to case studies; in contrast, in the adult population more information is available, especially in adults with substance abuse disorders. Adults experiencing stimulant withdrawal often experience depression, fatigue, changes in appetite, and insomnia or hypersomnia.

CONCLUSIONS:

We argue that tolerance to stimulants was conceivably developing in this young female, and consequently discontinuation of methylphenidate and dose reduction of lisdexamfetamine resulted in withdrawal symptoms. Children with ASD are more sensitive to stimulant medications and we wonder whether this extends to an increased sensitivity to developing tolerance to stimulant medication. Clinicians ought to be vigilant about the emergence of symptomology suggestive of withdrawal phenomena following stimulant discontinuation.