Methylphenidate Use In The Presence of Attention Deficit Hyperactivity In Cases With Autism Spectrum Disorder: A Review

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Abstract

Objective:
Attention deficit hyperactivity disorder (ADHD) and pervasive developmental disorders (PDD) are psychiatric disorders that constitute a substantial area in neurodevelopmental disorders of childhood, and have high rates of being comorbid with each other. PDDs are classified under the headline of Autism Spectrum Disorders (ASD) regarding current DSM-5 criteria. While having the diagnosis of ASD was among exclusion criteria for ADHD diagnosis in DSM-IV, DSM-5 has given the possibility of diagnosing ASD cases with ADHD. Research on treatment of ADHD in ASD cases that are a commonly encountered clinical situation, is ongoing. Methylphenidate (MPH) is the most studied agent in the treatment of ADHD,. Although studies so far have shown that MPH has favourable efficiency and safety profile, conflicting results have been obtained in studies about MPH treatment in ASD cases with ADHD comorbidity. Aim of this review was to summarize the current data in the literature regarding treatment of cases that have concurrent symptoms of ADHD and ASD while maintaining a possible directory for the management and treatment of these cases and their treatment that are classified under this headline, in the future.

Method:
A literature search was performed within the context of the aim of this and 6 placebo-controlled and 5 non-controlled clinical studies were found. These studies included the results from a total of 760 patients, where 193 were from controlled, and 567 from uncontrolled studies.

Results:
Among the total number of 11 studies, 640 patients were boys (84.2%), and 120 were girls (15.8%), and they were between 0 to 21 years of age. According to the findings, favourable response to MPH was obtained in cases diagnosed with ASD+ADHD from 10 studies. In these studies, improvements in ADHD symptoms such as attention deficiency, hyperactivity, impulsivity and oppositional defiant behaviour. However, some studies reported an increase in adverse effects. One remaining study reported that stimulants were tolerated poorly in patients with ASD, and this response was also varied among ASD subtypes.

Conclusion:
Even though psychostimulant therapy generally yields to positive outcomes in the treatment of ASD patients with ADHD comorbidity, reported increases in adverse effects suggest that more comprehensive randomized controlled studies about the treatment would be required in these patients.