

## Guanfacine as an alternative for Autism Spectrum Disorder with Hyperactivity Symptoms.

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**Introduction:** Autism spectrum disorders (ASD) are frequently marked by symptoms consistent with attention-deficit/hyperactivity disorder (ADHD), namely inattention, hyperactivity, and impulsivity. Individuals with co-occurring ASD and ADHD symptoms are more severely impaired, with significant deficits seen in social processing, adaptive functioning, and executive control.[1] Since the opening of the Autism Early Diagnosis Unit in December 2016, 40 children were attended. 20 of them were admitted in order to study if they presented autism traits associated to their ADHD. The main reason for the admission of these patients was that the medication they had did not improve their symptoms. 12 of the 20 children were diagnosed with an ASD and the treatment was changed from psychostimulants to Guanfacine. All the children improved their symptoms when Guanfacine was introduced. [2]

**Aim of the Study:** Sometimes, hyperactivity, impulsiveness, and distractibility are common problems in children with ASD. Guanfacine is approved for children with attention-deficit/hyperactivity disorder but not well studied in ASD.

**Method:** In this study we compared extended release guanfacine was compared with the previous use of psychoestimulants in children with ASD accompanied by hyperactivity, impulsiveness, and distractibility. The study subjects were recruited from an outpatient programme that treats children with Developmental Disorders (DDs). All subjects were also diagnosed with attention-deficit/hyperactivity disorder (ADHD), based on psychiatric evaluation, scales obtained from parents, teachers, and information available in the subjects medical records from previous assessments. Additionally, subjects scored 15 points or higher on the Conners Parents and/or Teachers Hyperactivity Index. Moreover, all subjects had previously been prescribed with psychostimulant medication, but had either been non responders or experienced adverse side effects that required discontinuation of the medication. 20 children were studied in order to diagnose ASD, and if it was necessary due to lack of response to specific hyperactivity symptoms and/or adverse side effects, their medication was changed.

**Results:** 20 subjects (boys N=18, girls N=2; age range=7,8 years), their medication was changed to Guanfacine and the patients were re-evaluated a month after. It was observed that the patients showed improvement in the hyperactivity symptoms compared to when they were medicated with psychostimulants. The modal dose of Guanfacine at week 4 was 3 mg/day (range: 1–4 mg/day). When analyzed, the most common adverse events were decreased appetite and somnolence, several reported drowsiness. It was also found that the weight gets restored, the ECG did not have significant changes, and the gastro intestinal symptoms disappeared. A good tolerance was reported.

**Conclusions:** There is good evidence suggesting that as many as 50% of children with ASD exhibit significant co-occurring ADHD symptoms. Children with co-occurring conditions demonstrate more severe social impairments and worse outcomes. Careful evaluation for the potential presence of ADHD symptoms is warranted for all individuals with ASD. Extended-release Guanfacine appears to be safe and effective in reducing hyperactivity, impulsiveness, and distractibility in children with ASD. While this medication appears to be an alternative to psychostimulants among children with developmental disabilities, clinicians need to remain vigilant for the possibility [3].

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