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A meta-analysis of the efficacy of immediate release methylphenidate to reduce hyperactivity in children with autistic spectrum disorder

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Psychostimulant medications, such as methylphenidate (MPH) have become mainstay treatments for Attention Deficit Hyperactivity Disorder (ADHD) symptoms, such as hyperactivity, impulsivity and inattention in children. Such symptoms frequently also co-exist in children with Autistic Spectrum Disorders (ASD), thereby complicating a differential diagnosis. The presence of ADHD-like symptoms in children with ASD can have a significant detrimental impact on learning and social interaction, and can limit the outcome of behavioral interventions to address areas of core ASD difficulties. Therefore, it is of clinical relevance and potential benefit to address the issue of effectiveness and tolerability/safety of stimulants such as methylphenidate in children with co-morbid diagnoses of ASD + ADHD. This study performed a meta-analysis of three randomised controlled trials homogeneously measuring the effect of immediate release methylphenidate (MPH) to reduce scores of hyperactivities in children with comorbid ADHD + ASD. The findings that IR-MPH produces an overall moderate significant benefit to reduce hyperactivity in ASD are discussed in relation to the risk/benefit question of medication use in this population.

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