

Review of the evidence for the management of co-morbid Tic disorders in children and adolescents with attention deficit hyperactivity disorder.

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Abstract

Attention deficit hyperactivity disorder (ADHD) is the most common neurodevelopmental disorder in children and adolescents, with prevalence ranging between 5% and 12% in the developed countries. Tic disorders (TD) are common co-morbidities in paediatric ADHD patients with or without pharmacotherapy treatment. There has been conflicting evidence of the role of psychostimulants in either precipitating or exacerbating TDs in ADHD patients. We carried out a literature review relating to the management of TDs in children and adolescents with ADHD through a comprehensive search of MEDLINE, EMBASE, CINAHL and Cochrane databases. No quantitative synthesis (meta-analysis) was deemed appropriate. Meta-analysis of controlled trials does not support an association between new onset or worsening of tics and normal doses of psychostimulant use. Supratherapeutic doses of dextroamphetamine have been shown to exacerbate TD. Most tics are mild or moderate and respond to psychoeducation and behavioural management. Level A evidence support the use of alpha adrenergic agonists, including Clonidine and Guanfacine, reuptake noradrenalin inhibitors (Atomoxetine) and stimulants (Methylphenidate and Dexamphetamines) for the treatment of Tics and comorbid ADHD. Priority should be given to the management of co-morbid Tourette's syndrome (TS) or severely disabling tics in children and adolescents with ADHD. Severe TDs may require antipsychotic treatment. Antipsychotics, especially Aripiprazole, are safe and effective treatment for TS or severe Tics, but they only moderately control the co-occurring ADHD symptomatology. Short vignettes of different common clinical scenarios are presented to help clinicians determine the most appropriate treatment to consider in each patient presenting with ADHD and co-morbid TDs.