The efficacy of atomoxetine in treating adult attention deficit hyperactivity disorder (ADHD): A meta-analysis of controlled trials

Vinutha Ravishankar, Suresh Vedaveni Chowdappa, Vivek Benegal, Kesavan Muralidharan

DOI: http://dx.doi.org/10.1016/j.ajp.2016.08.017.

Abstract

Atomoxetine, a non-stimulant, is FDA approved drug used in the management of adult ADHD. Since the presentation of adult ADHD is different from the childhood onset condition, there is an urgent need to study the efficacy of atomoxetine on the different symptom domains of adult ADHD. To study the efficacy of atomoxetine in treating adult ADHD compared to placebo, we performed a Medline search for English language publications of Randomized Controlled Trials (RCTs) comparing atomoxetine to placebo for adult ADHD using the keywords “adult ADHD”, “atomoxetine” and “placebo”. A total of 41 RCTs were returned of which we included 13 relevant RCTs reporting data on 1824 patients with adult ADHD in the analysis. Standardized mean difference between atomoxetine and placebo for the mean baseline-to-endpoint change in total ADHD scores, impulsivity/hyperactivity and inattention scores was calculated, with a 95% confidence limit. Atomoxetine had superior efficacy than placebo on overall adult ADHD scores \([-0.45; 95\% \text{ CI } -0.54, -0.35; \text{ overall effect } p < 0.00001]\). Atomoxetine was superior to placebo on the domains of both inattention \([-0.42; 95\% \text{ CI } -0.49, -0.35; \text{ overall effect } p < 0.00001]\) and impulsivity/hyperactivity \([-0.36; 95\% \text{ CI } -0.44, -0.29; \text{ overall effect } p < 0.00001]\). Atomoxetine was significantly more efficacious \((p < 0.00001)\) in treating inattention than hyperactivity/impulsivity. Atomoxetine is efficacious in treating adult ADHD compared to placebo, though the efficacy is significantly superior for inattention than hyperactivity/impulsivity.