

METHYLPHENIDATE FOR ADHD IN ADULTS WITH SUBSTANCE DEPENDENCE: A 24-WEEK RANDOMIZED PLACEBO-CONTROLLED TRIAL

M. Konstenius¹, N. Jayaram-Lindström¹, J. Guterstam¹, B. Philips², O. Beck³, J. Franck¹

¹Clinical Neuroscience, Karolinska Institutet (KI), Stockholm, ²Department of Psychology, Linköping University, Linköping,

³Division of Clinical Pharmacology, Department of Medicine, Karolinska Institutet (KI), Stockholm, Sweden

Introduction: There is a lack of evidence for the efficacy of stimulant pharmacotherapy in patients with substance dependence and comorbid attention deficit hyperactivity disorder (ADHD).

Objective: The aim of the present trial was to test the efficacy and safety of 180 mg extended release methylphenidate for treating ADHD in patients with amphetamine dependence.

Method: 54 incarcerated men, mean age 42 years, meeting the DSM-IV criteria for amphetamine dependence and ADHD were randomized to methylphenidate or placebo in a 24-week randomized double-blind, placebo-controlled trial, with parallel groups design. The medication started within 14 days before release from prison and continued in outpatient care with twice weekly visits including once weekly cognitive behaviour therapy. The primary end point was relapse to any drug use measured by urine toxicology. Secondary endpoints included relapse to amphetamine use, retention to treatment, and change in self-rated ADHD symptoms.

Results: The methylphenidate group had significantly fewer drug positive urines compared to the placebo group (95% CI -0.31 to -0.05, $P=0.034$), fewer amphetamine positive urines, (95% CI -0.36 to -0.07, $P=0.019$) and better retention to treatment (95% CI 15.64 to 78.58, $P=0.001$). Compared to the placebo group, the methylphenidate group also significantly reduced their self-rated ADHD symptoms (95% CI -21.09 to -3.37, $P=0.008$) during the 24-week treatment.

Conclusions: This is the first randomized clinical trial to demonstrate the efficacy of a stimulant treatment for substance dependent individuals with ADHD. The treatment with MPH led to reduction in drug use and a clinically relevant improvement of ADHD symptoms.