Pharmacotherapy of ADHD in patients with substance use disorders: Challenges and solutions

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Pharmacotherapy is a potent intervention in childhood and adult ADHD, but the effectiveness of pharmacological treatment is diminished in ADHD adults with comorbid substance use disorders. Until recently randomised controlled trials had difficulty demonstrating any positive effect of several medications (methylphenidate, amphetamines and atomoxetine) in the treatment of ADHD in this patient group. This lecture will focus on contributing factors and possible explanations, reviewing all randomized placebo-controlled pharmacotherapy trials. The number of studies is limited, and several studies are hampered by qualitative flaws. The results in general are inconclusive for most medications studied, but more recent trials using psychostimulants in robust dosing have demonstrated significantly positive results.

Possible explanations relating to the particular characteristics and problems of this complex patient group will be discussed. Several factors seem to influence the effectiveness of medication, including ADHD symptom severity, psychiatric comorbidity, persistent drug use, choice of medication and concomitant psychosocial intervention. Special attention will be given to the determining role of abstinence in ensuring a positive effect.

In most SUD patients several of these contributing factors will be present, impeding treatment and negatively influencing prognosis. However, identifying and addressing these factors is a first step in optimising treatment results. Taking these factors into account will contribute to an appropriate use of pharmacotherapy (drug selection, dosage, conditions) in clinical practice, and may improve the likelihood of detecting significant effects in future research, as the recent positive trials have indicated.