Adult ADHD Pharmacotherapy

Several medications are used to treat adult attention-deficit/hyperactivity disorder (ADHD), some of which may be augmented with psychotherapy or with other medications to successfully treat complicated presentations of ADHD.

Stimulant Treatment

Mixed amphetamine salts extended release (XR), dexmethylphenidate XR, the prodrug lisdexamfetamine, and OROS methylphenidate are the only stimulants indicated for the treatment of adult ADHD. However, immediate-release (IR) formulations of mixed amphetamine salts and methylphenidate have been shown in studies to be effective.

Both formulations of mixed amphetamine salts[1,2] and methylphenidate[3,4] as well as lisdexamfetamine[5] have significantly reduced symptoms of ADHD compared with placebo. Further, mixed amphetamine salts IR[1] and dexmethylphenidate XR[6] have significantly improved patients' ADHD Rating Scale scores compared with placebo. A dose-dependent relationship was not specifically found for mixed amphetamine salts (up to 60 mg/day), dexmethylphenidate XR (up to 40 mg/day), or lisdexamfetamine (up to 70 mg/day).

Although stimulants have abuse liability warnings, concern about stimulant abuse has decreased as newer formulations with slow-release mechanisms have become available. One study[7] showed that OROS methylphenidate had no detection or likeability in subjects tested every hour for 10 hours after ingestion.

Side effects of stimulants include dry mouth, insomnia, appetite suppression, headache, edginess, and increased blood pressure and pulse. Stimulants may also uncover vocal or motor tics.

Nonstimulant Treatment

Atomoxetine, a selective norepinephrine reuptake inhibitor, is also indicated for treating adult ADHD and has been shown to be significantly superior to placebo in reducing ADHD symptoms.[8]

Side effects of atomoxetine include dry mouth, insomnia, decreased appetite, nausea, sexual difficulty, dizziness, and increased blood pressure and heart rate.

Nonpharmacologic Therapy

Psychosocial therapy may be necessary in the comprehensive treatment of adults with ADHD. For patients who partially respond to medication, adjunctive cognitive-behavioral therapy has been shown to reduce symptoms of ADHD as well as produce significantly more responders than continued medication alone.[9]

ADHD and Comorbid Disorders

ADHD often co-occurs with sleep, mood, anxiety, and substance use disorders (SUD). However, clinicians should always screen patients with ADHD for these conditions, and, if a patient has 1 or more co-occurring disorders, it is recommended that the most impairing disorder should be treated first. There are currently no approved guidelines for treatment of adult ADHD and comorbid mental health disorders.

Treatment for ADHD and some comorbidities can be concurrent, such as augmentation with an α_2-agonist for sleep disorders or an antidepressant for depression. Anxiety symptoms may decrease with the resolution of ADHD symptoms.

For patients who have a current SUD, it is generally prudent to wait to fully assess ADHD symptoms until the patient has been abstinent for 1 week to 1 month. Additionally, no definitive correlation between stimulant treatment and increased use of alcohol, cigarettes, or drugs of abuse in patients with ADHD has been found.[10] It is generally recommended to bring both the ADHD and the SUD under the treatment umbrella.

Take-Home Points

Both stimulants and nonstimulants are effective in treating adult ADHD. Clinicians should individualize treatment for their patients with ADHD considering the response to medication and the presence of comorbid disorders.

Drug names: amphetamine/dextroamphetamine (Adderall, Adderall XR, and others), atomoxetine (Strattera), dexmethylphenidate (Focalin XR and others), lisdexamfetamine (Vyvanse), methylphenidate (Concerta, Ritalin, and others).

Disclosure of off-label usage: Dr. Adler has determined that, to the best of his knowledge, immediate-release amphetamine dextroamphetamine and immediate-release methylphenidate are not approved by the U.S. Food and Drug Administration for the treatment of adult ADHD.

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