INTRODUCTION

By Lenard A. Adler, MD

Cardiovascular Risk

The American Heart Association (AHA) has put forth guidelines recommending a baseline electrocardiogram (EGK) before starting stimulant therapy for treatment of attention-deficit/hyperactivity disorder (ADHD) in a child.1 The AHA has indicated that the assessment of children with ADHD should include a detailed patient and family history (including querying for a family history of early/sudden cardiac death and a history of syncope or pre-syncope or palpitations in the patient), a physical exam, and a baseline ECG, which often can identify cardiovascular abnormalities such as hypertrophic cardiomyopathy, long-QT syndrome, and Wolff-Parkinson-White syndrome. They also further recommend considering repeating an electrocardiogram (EGK) during the course of treatment, obtaining an EKG in children already being treated with psychostimulants, and that these guidelines should also be considered applicable to adults with ADHD. Recommendations for ongoing monitoring of blood pressure and pulse during stimulant therapy are also made.

The issue of sudden cardiac death may be all the more important in adults, because they are generally considered at greater risk for underlying cardiovascular illness, including hypertension, arrhythmia, and cardiac ischemia. Many adults, however, have had an EKG done during a physical exam, an emergency room visit, or after an injury. Thus, even if the clinician has information available from a prior EKG, it may have to be repeated if the information is not current.

Stimulant Misuse and Diversion

Misuse of stimulants is a topic that has received wide attention in the last few years. Concerns over misuse and diversion center on whether there is primary substance use or if some of the substance use is secondary to self-medication of ADHD. Wilens and colleagues2 evaluated the literature on misuse and diversion of stimulant medication prescribed for ADHD, including 21 studies with 113,145 total participants. Among the evaluated studies, 76% were surveys, 5% were chart reviews, 5% were direct structured interviews, and 15% were both survey and direct structured interviews.

The studies assessed grade school and high school students (19%); college students (52%); and mixed-age groups (29%). The researchers found that past-year stimulant misuse occurred in 5% to 9% of grade school and high school students prescribed medication for ADHD, and 5% to 35% of those college aged.

For lifetime diversion rates, 16% to 29% of students with stimulant prescriptions were asked to give, sell, or trade their medications. However, it is important to note that there were variable methodologies employed for each study.

Overall, stimulant misuse was associated with greater alcohol, drug, and cigarette use as well as increased ADHD symptoms, which lends to the hypothesis that patients may be attempting self-medication. Among the substances that were misused or diverted, immediate-release drug formulations were more commonly misused and diverted than extended-release formulations.2

Medical Mimics

The diagnosis of adult ADHD is predicated on being certain that the symptoms of inattention and/or hyperactivity-impulsivity are not better explained by another disorder. Commonly this requirement is thought to focus on co-morbid mental health disorders, such as mood disorders or substance use disorders. However, a number of medical conditions, such as thyroid disorders, obesity, sleep disorders, and seizure disorders can also present with similar symptoms and these disorders must also be considered in the differential diagnosis.

In this Supplement

There are several special considerations the clinician is faced with when treating the adult ADHD population. Some of the concerns include cardiovascular risk for certain patients, possible diversion and misuse of stimulant medications, conditions that mimic or present co-morbid with ADHD, and the option of neuropsychological testing. This Expert Roundtable Supplement, which represents the concluding segment of a 3-part supplement series on Best Practices in Adult ADHD, addresses these important topics.

References
