

Attention Deficit Hyperactivity Disorder

By *RADM Peter L. Andrus, MC, USNR*
National VP for Health Affairs

Attention Deficit Hyperactivity Disorder (ADHD) is a frequent diagnosis in the pediatric population and is increasingly being diagnosed in adults as well. Since many Naval Reservists are parents (or grandparents), I thought this topic would prove of interest. Perhaps many of you have a child or grandchild with this diagnosis, and some of you may actually have ADHD yourselves. As a practicing pediatrician, I frequently encounter families whose children present with school issues that turn out to be ADHD. Thus, I am often involved in the diagnosis and treatment of ADHD and find working with and helping these families to be among the most rewarding aspects of practice.

ADHD has been estimated to be present in 7-10 percent of the pediatric population and can have a profound impact on a child's ability to function well at home, in school, and with peers. Once thought to be present much more frequently in boys than in girls, we now realize it is frequently present in children of either sex. The diagnosis currently is being recognized more often in girls who typically display less hyperactivity than boys. The cardinal symptoms of ADHD are inattentiveness, impulsivity, and hyperactivity; but not all of these symptoms must be present for the diagnosis to be met. Based on a variety of behavioral characteristics, together with the frequency and severity of their occurrence, ADHD can be broken down into three subtypes. ADHD, inattentive predominant subtype, manifests largely without hyperactivity. ADHD, hyperactive-impulsive predominant subtype, manifests largely in terms of hyperactivity and impulsivity; inattentiveness is less apparent. ADHD, combined subtype, displays characteristic behaviors in all three of the cardinal areas mentioned.

There is no physical examination or laboratory finding that is consistently characteristic (diagnostic) of ADHD. The diagnosis is largely reached by the history of the child's behavior as given by parents, teachers, and other salient adult figures in the child's life. Such data can be collected using structured survey forms or interviews. In addition, direct behavioral observations in the classroom, home, or office may be helpful. In addition to meeting specified criteria for the diagnosis, a significant part of the medical evaluation of youngsters suspected of having ADHD is investigation to rule out

other medical or psychiatric diagnoses which might better explain the presenting symptoms. Other medical conditions, such as seizure disorder or allergies and the side effects of medicines taken for medical conditions such as asthma, may mimic some of ADHD's symptoms. Learning disorders and a variety of emotional conditions may also confound the picture.

Physicians must work cooperatively with parents, teachers, and the child himself/herself in developing a comprehensive treatment program to manage ADHD. While medication is often at the heart of such a program, medicine alone is not an adequate solution. It is important to ensure that appropriate behavior management techniques are in place, that there is effective communication between home and school, and that consistent approaches to behavior management are in place. It may be helpful to have the child formally recognized by the school as having an educationally handicapping condition. This makes special education resources available to assist in his/her overall educational program including modifications such as untimed testing as well as classroom alterations to enhance concentration, decrease distractions and otherwise aid in the learning environment.

Let's return to medications since they are the most effective single intervention for most children. The gold standard medications for ADHD have been the stimulant class of drugs, specifically methylphenidate (Ritalin, Concerta, and others) and amphetamine (Dexedrine, Adderall, and others). They have been in use for this condition for over 40 years and are among the most heavily studied medications in the pharmacopoeia. Their onset of action is same day, and the effect of the medicine lasts for a few to several hours. They are controlled substances, which makes the management of refill prescriptions somewhat cumbersome. They are extremely safe and effective when appropriately prescribed and monitored by experienced physicians, notwithstanding the negative press that accompanies their use in some of the popular media. In the past, multiple doses of medication were required on a daily basis, which was a nuisance for the child, parent, and school nurse. In recent years, significant advances have been made in developing sustained release preparations that permit once-a-day dosing at home under parental supervision, in most cases. Contrary to some reports, stimulant

medications are not addictive as prescribed for ADHD, and all evidence points to a lower risk of developing drug abuse in patients who are adequately treated for their ADHD, as compared with those who are undiagnosed or untreated. The common side effects of decreased appetite, sleep difficulty, headache or stomachache can normally be satisfactorily managed and diminish as the child becomes accustomed to the medication.

Treatment will certainly be required for several years, and possibly on a long-term or lifetime basis. Many children who are hyperactive when younger will show less hyperactivity as they move into their later teen years but may still manifest inattentiveness, which remains a challenge for effective learning and satisfactory peer relations. As teens become drivers, the need for adequate management of their inattentiveness becomes more critical, as ADHD patients who are not being adequately treated are substantially worse driving risks than those who are being treated or who do not have ADHD.

A nonstimulant medication, atomoxetine (Strattera), that has recently become available offers some advantages over the older drugs. It is not a controlled substance, which makes prescription refills easier to manage; and it provides around the clock coverage of ADHD symptoms. On the other hand, its onset of action is slower, taking several weeks to reach full effect; and we have a much shorter track record with its use in the clinical setting. There are a number of other second-line drugs that have shown some effect in ADHD patients. In sum, about 85-90 percent of all children with ADHD will benefit from one medication or another.

As it is increasingly being recognized that ADHD is not an age-limited phenomenon, many adults are currently being diagnosed and treated for this condition which previously went unrecognized in adults. Parents often realize at the time their children are first evaluated and treated that they have suffered from ADHD and seek care for themselves as well. Among physicians, pediatricians, family physicians, psychiatrists, and internists are the most likely to have experience with the evaluation and treatment of ADHD patients. Should you feel that this is an issue for a family member of yours, care and additional information should be sought from your personal physician. ❧