TOP TEN THINGS TO KNOW
Cardiovascular Monitoring of Children and Adolescents with Heart Disease Receiving Medications for Attention Deficit/Hyperactivity Disorder
--Updated June 4, 2008--

1. Attention deficit hyperactivity disorder (ADHD) is the most common neurobehavioral disorder of childhood, with over 2.5 million children taking medications yearly. 

2. Medications that treat ADHD have not been shown to cause heart conditions nor have they been demonstrated to cause sudden cardiac death. However, some of these medications can increase or decrease heart rate and blood pressure. While these side effects are not usually considered dangerous, they should be monitored in children with heart conditions as the physician feels necessary.

3. Sudden cardiac death has been reported to the FDA in children and adolescents taking stimulant medications, although no studies have proven a causal association.

4. Since February 2007, the FDA has required all manufacturers of drug products approved for ADHD treatment to develop patient Medication Guidelines to alert patients to possible cardiovascular risks.

5. This AHA scientific statement provides the practitioner with tools to answer the following questions in patients who have ADHD.
   - How to know if the child has heart disease or a heart problem or heart defect.
   - What to do if you know the child has heart disease or a heart problem or heart defect.
   - What to do if the child has heart disease or a heart problem or a heart defect known to be associated with sudden cardiac death.

6. Conditions that are associated with sudden cardiac arrest/death in children are often subtle and may not be diagnosed at the time that an ADHD drug is being considered.

7. A thorough patient and family history should be obtained for assessment of these children. This is a Class I recommendation (using the ACC/AHA classes of recommendations and levels of evidence).

8. Acquiring an electrocardiogram is a Class IIa recommendation. This means it is reasonable for a physician to consider obtaining an ECG as part of the evaluation. It is not mandatory, but rather is left to the physician’s discretion. Treatment of a patient with ADHD should not be withheld because an ECG is not done. The child’s physician is the best person to make the assessment about whether there is a need for an ECG.

9. It is reasonable to use ADHD medications with caution in patients with known congenital heart disease and/or arrhythmias, if these patients are stable and under the care of a pediatric cardiologist.

10. Future studies are needed to assess the true risk of SCA in association with ADHD medications in children and adolescents with and without heart disease.
    - Studies on the efficacy of ECG screening in children are needed.
    - A Sudden Cardiac Death/Arrest registry in children is needed.

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