Refer or reassure: guidance on managing patients with syncope
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Focus On Subspecialties

Refer or reassure: guidance on managing patients with syncope

by Christopher Snyder, M.D., FAAP

Syncope is the transient and abrupt loss of consciousness resulting from a decrease in cerebral blood flow, resulting in collapse and prompt recovery. In addition, pre-syncope or near syncope has a prodrome consisting of dizziness, lightheadedness, tachycardia and visual changes such as “seeing spots” or blurry vision without loss of consciousness.

These entities differ from cardiac arrest, where interventions must be performed to prevent end organ damage and death.

Syncope is common in the pediatric age group. Infants and toddlers manifest these episodes as breath-holding spells that may occur in up to 5% of all toddlers (Di Mario FJ. Pediatrics. 2001;107:265-269). The highest incidence of syncope and/or pre-syncope occurs in adolescents, with a peak of about 40% (de Jong-de Vos van Steenwijk CCE, et al. J Am Coll Cardiol. 1995;25:1615-1621). In addition, there seems to be a marked female preponderance.

The etiology of syncope in pediatric patients can be directly correlated with inadequate cerebral blood flow. This can occur due to poor cardiac output or loss of vascular control.

The most common form of syncope that occurs in this age group is called vasodepressor, vasovagal or neuro-cardiogenic. This form of syncope generally occurs in a standing patient who begins to feel light-headed, dizzy and develops tunnel vision. These symptoms may progress to abdominal pain, pale skin and a sensation of rapid, hard heart beats. The patient often will describe feeling hot, yet is cool and clammy to the touch. If the patient fails to recognize symptoms and lie down, he or she may have a frank syncopal event. After the event, the patient is either responsive to pain or fully recovered within 15 to 20 seconds.

When presented with a patient who has experienced a syncopal episode, it is important to get a full medical history of the episode. First and foremost, ask if the patient has ever experienced a syncopal event in the past. Additional questions include: What has the patient had to eat and drink? Was the patient supine or upright when the event occurred? Was the patient participating in sports during the episode?

Episodes that occur during sports participation necessitate an immediate workup by a pediatric cardiologist to look for rare causes ranging from cardiac arrhythmias to anomalous coronary arteries.

In addition to symptoms, one must ask about family history. Have any relatives died a sudden, unexplained death; drowned; fallen from a tree and died; been born deaf; had implantable defibrillators at younger age; had seizure disorders or a diagnosis of long QT or Brugada syndrome? If the answer to any of these questions is yes, the patient will need a referral to a pediatric cardiologist.

After the history has been taken, a complete physical examination is required with special attention to the cardiovascular and neurologic systems. One needs to examine carefully for murmurs, clicks, gallops, pulses and neurologic reflexes. The only test that is recommended for pediatric patients with vasovagal syncope is an electrocardiogram to rule out complete atrioventricular block, cardiac hypertrophy, myocarditis and long QT and Brugada syndrome.

If the patient has a history consistent with vasovagal syncope, a negative medical and family history, and a normal physical examination and electrocardiogram, one could reassure the patient and begin a treatment plan. Educating the patient regarding the nature of syncopal episodes and how to abort episodes is important. The hallmark for therapy is recommending overhydration with noncaffeinated fluids, eating more healthy salty snacks and lying down if symptomatic.

If the patient does not respond to treatment or has an abnormal physical examination or history, it is recommended that the patient see a pediatric cardiologist. In addition, any infant or child who has a syncopal episode likely would benefit from seeing a pediatric cardiologist.
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