

Differential Diagnosis of Syncope

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Syncope is very common and may have multiple possible causes, ranging from benign conditions to life threatening diseases. Consequently, random screening tests, apart from not being very effective, can result in a huge medical expense for the patient and society. In clinical practice, considerable proportion of patients with syncope remain undiagnosed despite prolonged and costly work-up. These features make syncope a major challenge for the practicing physician.

The initial evaluation of syncope begins with a careful medical history and physical examination. Obtaining a detailed medical history is the first step in determining whether transient loss of consciousness is true syncope or not. A comprehensive account of the events preceding the syncopal spell is invaluable for diagnosis. The prodromal symptoms, precipitating factors, rate of onset, witnessed accounts, features during the recovery phase, past medical history, and the frequency and previous history of syncope will be helpful. An ECG and carotid sinus massage is a recommended diagnostic step during the physical examination, especially in older individuals with syncope. Postural hypotension and carotid sinus syncope can be reliably and safely diagnosed at the time of physical examination. The 12-lead ECG only rarely identifies a specific cause of syncope. However, abnormal ECG findings such as a Q wave, a prolonged QT interval, or ventricular preexcitation may indicate the presence of organic heart disease and thereby provide a basis for proceeding with further testing.

Because the prognosis after syncope is heavily dependent on the presence of the underlying cardiac disease, the principal objective of the examination is to determine whether there is evidence for underlying cardiovascular abnormality. The presence of heart disease is a predictor of a cardiac cause of syncope. When heart disease is absent, a cardiac cause is unlikely, unless palpitations precede syncope. In patients with structural heart disease or who have an abnormal ECG finding, cardiac evaluation consisting of echocardiography, stress testing, and tests for arrhythmia detection such as prolonged ECG monitoring or electrophysiologic study are recommended.