Syncope occurs when a person quickly loses consciousness for a short time. Presyncope, or near syncope, is the sudden appearance of syncope symptoms such as light-headedness, dizziness, sweating, nausea, and abnormal vision without a loss of consciousness. There are many possible causes of syncope that arise in the heart or brain, although the cause is not always found. Some causes are serious and can lead to death. It is crucial that patients with syncope are assessed with a detailed medical history, physical examination (including detailed heart and neurological examinations), and vital signs such as blood pressure. An electrocardiogram is recommended by multisociety guidelines to detect if people have a problem with the rhythm of their heart. The information from these assessments helps guide the doctor in diagnosis and treatment.

If based on the medical assessment a person is thought to have syncope or presyncope due to a heart condition, ultrasound echocardiography transthoracic resting is usually appropriate as the initial imaging test. CT angiography (https://www.radiologyinfo.org/en/info/angioct) chest with intravenous (IV) contrast, radiography chest (x-ray) (https://www.radiologyinfo.org/en/info/chestrad), CT angiography coronary arteries with IV contrast, MRI heart function and morphology without and with IV contrast, and MRI heart function and morphology without IV contrast may also be appropriate.

If the medical assessment shows a person has a low probability of a heart condition causing the syncope or presyncope, imaging tests may not be needed. However, radiography chest (x-ray) may be appropriate for initial imaging.

Syncope that occurs together with other medical conditions is discussed separately.

— By Jason Koweek and Gregory J. Czucman, MD. This information originally appeared in the Journal of the American College of Radiology.

Disclaimer

This information is copied from the RadiologyInfo Web site (http://www.radiologyinfo.org) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided “as is” without express or implied warranty.

Please visit the RadiologyInfo Web site at http://www.radiologyinfo.org to view or download the latest information.

Note: Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright © 2024 Radiological Society of North America, Inc.