

Syncope

Syncope

1. Rapid onset of transient loss of consciousness
2. Inability to maintain postural tone
3. It may be associated with a fall
4. Resolves spontaneously and quickly without intervention

Presyncope (Near-Syncope)

1. Weakness, Dizziness, lightheadedness, or "graying out" of consciousness without loss of postural tone
2. Evaluate Presyncope with the same vigor as Syncope
 1. Presyncope has the same risks of adverse events as Syncope

Causes: Neural or Reflex Mediated Syncope (no cardiovascular risk, most common, 45% of cases)

1. Vasovagal Syncope (Vasodepressor Syncope)
2. Situational Syncope
3. Carotid Sinus Syncope
4. Glossopharyngeal neuralgia (uncommon)
5. Trigeminal Neuralgia
6. Hypovolemia
7. Medication-related Syncope (Drug-Induced Syncope, responsible for 5-15% of Syncope causes)
8. Recreational drug use
9. Postural Tachycardia Syndrome (POTS)
 - Most common in young female women (associated with chronic Fatigue and Mitral Valve Prolapse)
10. Autonomic failure

Cardiac syncope

- Arrhythmias
- Ventricular Tachycardia

- Sick Sinus Syndrome
- Supraventricular Tachycardia
- Atrioventricular Block (second or third degree)
- Pacemaker malfunction
- Valvular disorders
- Hypertrophic Cardiomyopathy (esp. young patients)
- Aortic Stenosis
- Acute Mitral Valve Regurgitation (i.e. acute MI with papillary Muscle rupture)
- Prosthetic Heart Valve complications (e.g. Thromboembolism, valvular obstruction)

Vascular disorders

- Myocardial Infarction
- Aortic Dissection
- Abdominal Aortic Aneurysm rupture
- Pulmonary Embolism
- Pulmonary Hypertension
- Subarachnoid Hemorrhage
- Subclavian Steal Syndrome

Myocardial disorders

- Hypertrophic Cardiomyopathy
- Atrial myxoma

Examination

- Vital sign
- General
- Cardiovascular examination-murmurs, Carotid bruit, asymmetric pulses
- Abdomen and pelvis exam- pulsatile mass and decreased femoral pulses, pelvic pain, rectal exam

Labs

- Basic Chemistry Panel (Serum Electrolytes including Glucose)
- Hemoglobin or Hematocrit
- Pregnancy Test (urine HCG)
- Fecal Occult Blood Test
- Troponin I
- D Dimer if necessary.

Diagnostics

- Electrocardiogram (EKG)
- Continuous cardiac monitoring-telemetry for inpatient

Imaging

- Chest XRay
- Echocardiogram
- CT chest with contrast (if Pulmonary Embolism is suspected)
- Imaging related to injuries sustained in a Syncope- fall
- CT Head (usually low yield except indicated by history and physical examination)

Indications for head imaging include:

- Age over 65 years
- Warfarin use
- First Seizure
- Trauma above the clavicles
- Persistent neurological deficit
- Dizziness
- Sudden onset headache (Thunderclap Headaches)

Note: The San Francisco Syncope Rule (CHESS Score) or Canadian syncope risk score are used to evaluate the short-term risk of severe outcomes and may reduce the syncope hospitalization rate.

Management depends on the cause

- Fall precautions
- Telemetry if needed
- Assess ability to tolerate PO
- IV fluids if needed
- Consider intoxication

References

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