

A Patient with Syncope

A 49-year-old man is admitted from the emergency room because of syncope. He states that it occurred while he was standing for a few hours watching his daughter's softball game on the fourth of July. It was preceded by 5-10 seconds of light-headedness, diaphoresis and nausea. He fell to the ground, awoke within a minute and sustained no injury or head trauma. He denied any associated headache, visual change, chest pain, SOB, palpitations or back pain. He never had such an episode before.

His only past medical history was mild hypertension for 2 years treated with Lopressor. He is a smoker but denies any regular alcohol use.

Physical exam reveals a scared middle aged man in no acute distress. T 99²; P110; R 20; BP (lying down) 140/88. SKIN - normal; LN - none palp. HEENT - no head trauma; conj normal, Fundi show normal discs and vessels without exudates or hemorrhages; oropharynx is normal; TMs are clear. CHEST is clear. COR - RRR 1/6 SEM LLSB that decreases with Valsalva strain; no diastolic murmurs; rubs or S3 audible. ABD - soft nontender without hepatosplenomegaly or flank tenderness. G/R - normal with no rectal masses; heme neg. NEURO - nonfocal.

LABS: Na 142, K 4.0, Cl 106, HCO₃ 23, Cr 0.9, glu 107
Hb 14.6, Hct 43.0, WBC 9.6, plts 300K
UA: clear/1.023/no protein, glucose, cells or casts
EKG: S tach 110/normal intervals/no ST-T wave changes
CXR: normal heart size/clear lung fields

QUESTIONS:

1. How do you define syncope and does this patient fulfill the definition?
2. What other questions would you ask the patient?
3. What particular physical exam findings are important?

4. What are the major causes of syncope? Which one is most common overall and which is most likely in this patient?

The resident admitting the patient to you is worried about a neurological process and orders a head CT and an EEG. The attending physician is more worried about a cardiac cause and wants to obtain a cardiac echo, as well as ambulatory EKG monitoring for a possible arrhythmia.

5. Which one do you agree with, if either? Why or why not?

A head CT and EEG are performed and are normal. A cardiac echo reveals normal ventricular function, normal chamber sizes and no valvular abnormalities. The patient's brother is a cardiologist and wants the patient to be referred for electrophysiologic testing.

6. In very simple terms, what are the basic principles of electrophysiologic testing and would it help in the assessment of this patient?