Society for Academic Emergency Medicine

Teaching On-Shift in Emergency Medicine Toolkit

Module 3: Teaching the Experienced Learner

Activity Sheet

You are working with a PGY3 learner in the emergency department. They present to you a case of a 35-year-old patient with bilateral lower extremity edema. This is a simple case, and the patient is without concerning features or symptoms. You think back to module 3 of this curriculum and the various techniques discussed for providing teaching to the experienced learner.

Using either One Minute Preceptor, Effective Questioning, or SNAPPS, discuss a scenario (or line of questioning) for how you might make this case more interesting for an experienced learner.

What phrases might you use in this case to probe the diagnosis?

What clinical decision-making might you be able to utilize this case to teach?

One Minute Preceptor

- Educator (E): What is your diagnosis for this patient? (commitment)
    - Learner (L): Given the lack of symptoms on ROS, I think this is likely lymphedema or dependent edema. I think she can just follow up with her primary doctor.
- E: What led you to this conclusion or why is this your diagnosis? (probing)
    - L: I considered additional diagnoses such as heart failure, renal failure, volume overload for another etiology, but they are young, lacking any chest pain, shortness of breath, orthopnea, PND, or exertional symptoms. They have no risk factors for clotting including no hormone use, personal history, recent immobility or surgery or a cancer diagnosis, and given this is bilateral I do not think there would need to be imaging for DVT.
- E: The exam findings you might expect to find if the patient had decompensated heart failure would include rales on the lung exam, JVD, and potentially an S3. (reinforcing/teaching rules)
    - L: Sounds good.
- E: I appreciate your thought process considering risk factors for clotting, you clearly applied your knowledge well here. (reinforce positives)
- E: I noticed that the patient is hypertensive here in the ED. That may be an important component of the physical exam given new renal failure would be in consideration. Given this finding, it would be reasonable to consider checking renal function prior to considering discharge.

Effective Questioning

- E: You mentioned you think this is straightforward lymphedema or dependent edema due to the patient standing long hours at work. What might you add to the differential diagnosis if we changed the scenario and this patient presented as a 30-week pregnant female?
    - L: In that case, I would consider other etiologies for her diagnosis including pre-eclampsia.
- E: What is the definition of severe range blood pressure in pre-eclampsia?
    - L: There are several, but definitely two readings > 160/110 about 15 minutes apart.
- E: How would you approach managing pre-eclampsia in the ED?
    - L: I would immediately consult OB, but additionally consider medications such as labetalol to lower blood pressure and giving at least 2-4gm of magnesium.
- E: What are typical features of magnesium toxicity if the patient gets repeated large doses in the ED?
    - L: Hyporeflexia, AMS, respiratory arrest, cardiac conduction block.

SNAPPS

- E: Can you summarize this case for me in a few sentences?
    - L: This is a 35-year-old otherwise healthy woman who is presenting with bilateral leg edema, she has no other findings including no shortness of breath, chest pain. She stands long hours at work so I think this is probably just dependent edema.
- E: What other things did you consider on your differential?
    - L: I considered CHF, new renal failure, or a thrombotic problem.
- E: How did you decide which diagnosis was likely?
    - L: I asked several questions during my history regarding review of symptoms that would raise my concern for these other diagnoses and they were negative, no other signs or symptoms of volume overload. I considered DVT risk factors such as hormone use, personal history, recent immobility or surgery, or a cancer diagnosis in their history but they had none of these.
- E: I noticed the patient was additionally hypertensive. Do you recall what laboratory testing might help determine if she had a new diagnosis of nephrotic syndrome?
    - L: I did not, other than checking a creatinine.
- E: Sounds like this might be a good thing to look up and read on either today during our shift or later when you are studying. Let's write this down for you. For now, let's plan to check a renal function and a UA on this patient to assess for new renal dysfunction and ensure no large volume of protein on the UA.