



Intermittent faintness and shortness of breath in a woman in her sixties: how to manage?

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A 64-year-old woman well known to you has arrived at your general practice complaining of faintness and shortness of breath. She tells you she has felt like this on and off for several weeks but this episode is particularly bad. She has been previously very well and is taking no medications, but you recall that she has mentioned she is under a lot of stress. She appears to be hyperventilating and agitated.

What should you do next?

Answer: Lie the patient down at approximately 45 degrees. Take a brief history regarding how long she has been this faint and short of breath. Has she got chest pain, pressure or tightness, is she aware of any palpitations? Ask her to define 'faint': is she really faint, as if she is going to pass out, or is she feeling unsteady, or is her concentration and thinking unclear? Observe the nature of her shortness of breath. Is she cyanosed, wheezing, breathing shallowly or deeply, is she using accessory muscles, does she appear hysterical? Ask her to try to slow her breathing down if she can.

She tells you she feels light-headed on standing particularly, and that she is usually worse in the mornings and when she is exerting herself. She has found that when she feels faint, sitting or lying down improves the symptoms. She says she cannot take a deep breath because of a feeling of tension or restriction in her chest when she does. She is not aware of any palpitations. She tells you she has a lot of problems at present and she doesn't need anything else going wrong.

What are the most important points regarding the physical examination?

Answer: The patient is alert, anxious and looks pale but not frankly anaemic. Her pulse rate is irregularly irregular, at a rate of about 90 beats per minute. It is variable in fullness. Her blood pressure is 105/60 mmHg, but is difficult to take because of the irregularity of the pulse. Her respiratory rate was 20 breaths per minute but she has managed to slow it down to 16 breaths per minute. She is preferentially taking shallower breaths through her mouth. There is no respiratory distress and she does not appear to be cyanosed (your oxygen saturation monitor is still broken!). Her

jugulovenous pressure fluctuates from being easily visualised to raised by 2 cm. Auscultation of her lung fields shows poor bibasal air entry but is otherwise clear. Cardiac auscultation reveals a third heart sound, a grade two mid to late systolic murmur at the left sternal edge, and a prominent, irregular but normally positioned apex beat. Her heart beat at the apex is also irregularly irregular, at a rate of 100 beats per minute, and is varying in intensity on auscultation. There is no peripheral oedema. She appears grossly neurologically intact and there are no cerebellar signs.

What do you do next?

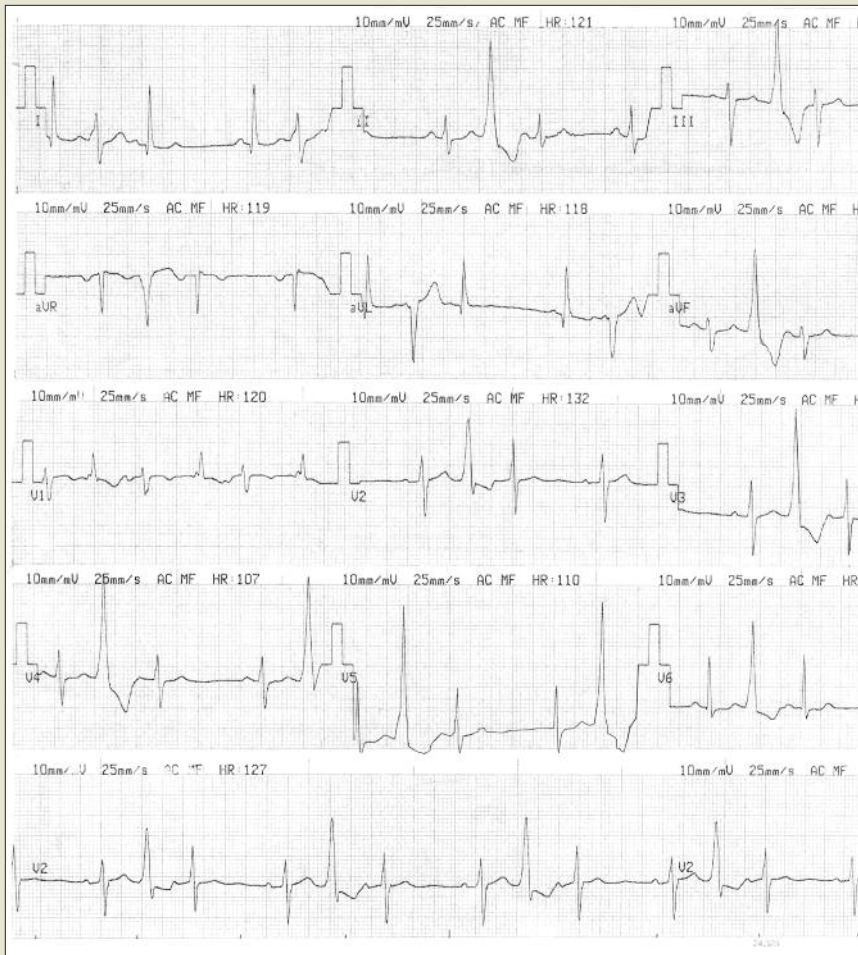
Answer: Inform your practice nurse, who will be helping to look after patient, of the patient's condition. See if oxygen helps decrease the patient's feeling of shortness of breath. Perform an ECG.

Your patient feels breathing is less effort with oxygen. Her respiratory rate is now 12 breaths per minute but she still looks anxious. You perform an ECG (not shown) and this demonstrates multiple multifocal ventricular ectopics. They are so frequent it is hard to find runs of normal complexes. Such a finding is easily confused with atrial fibrillation. What do you say to the patient?

Answer: You tell the patient that her heart rate is a bit fast although not dangerously so, but the main problem is that it is not beating regularly. At this stage, you say, you don't want to give her any specific medication to correct this. You tell her that you think this needs further investigation, especially as she is feeling so unwell and is having trouble with normal activities. You explain you are concerned she may faint if she gets up quickly and that she should not drive at present. You tell her you

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think it best for her to go to hospital and that you will arrange this now by ambulance, as she feels faint standing up.

The patient tells you she drove herself to see you. She would like her husband to take her to hospital as she is embarrassed to go by ambulance. What is your reply?

Answer: If she really insists on being driven and her husband agrees with her, you cannot prevent her from taking this option. However, in your opinion there are some problems with it: she could faint and injure herself in a fall on the way to the car; the underlying reason for her symptoms is not clear so you cannot be sure she won't suddenly become a lot worse; and if an emergency occurred, this would be dangerous for her and also for her husband to deal with by himself while he is driving. The ambulance service is appropriate for this situation and she

should not feel embarrassed. You tell her you would like to speak to her husband if she doesn't mind, to explain what is happening.

Your patient speaks with her husband, whom you also know well, and then you discuss the situation with him. He doesn't want to drive her himself and will come to your surgery immediately. She is transferred to hospital by ambulance.

The patient is admitted for cardiac monitoring. She continues to have almost constant multifocal ectopics but no other arrhythmias. She has an echocardiograph that unfortunately suggests she has a dilated cardiomyopathy affecting both sides of the heart. Her left ventricular ejection fraction is 28% and her extremely frequent multifocal ectopics are contributing to her poor ejection fraction and her feelings of faintness. Cardiac monitoring for 24 hours showed

no dangerous arrhythmias. She is placed on carvedilol 3.125 mg twice daily, spironolactone 25 mg daily and aspirin 100 mg daily. Further investigations suggest the cardiomyopathy is idiopathic.

She re-presents at your practice two weeks after discharge with similar symptoms. She is even more distressed and feels very faint, even sitting down. Her examination is similar but her blood pressure is 90/50 mmHg. You perform an ECG, shown on this page. What does it demonstrate this time?

Answer: Her ECG now shows unifocal ventricular ectopics, every third beat, sometimes called ventricular trigeminy.

What is your course of action?

Answer: You discuss the case with the patient's cardiologist, who suggests she attend hospital for further monitoring and checking of her electrolytes. The cardiologist managed her in hospital, on a monitor, adjusting her medications until her faintness had largely resolved. Initially the spironolactone was ceased as her sodium levels had dropped significantly, the carvedilol was temporarily reduced to once daily, and perindopril 2.5 mg daily was then introduced.

Outcome: The cardiologist considered electrophysiological studies or a defibrillator but decided they were not necessary at this stage as the ventricular ectopy was decreasing with introduction of the beta-blocker and ACE inhibitor. The patient preferred not to take sertraline for anxiety, although it was thought that her mental state was contributing to her perceptions of physical distress.

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