

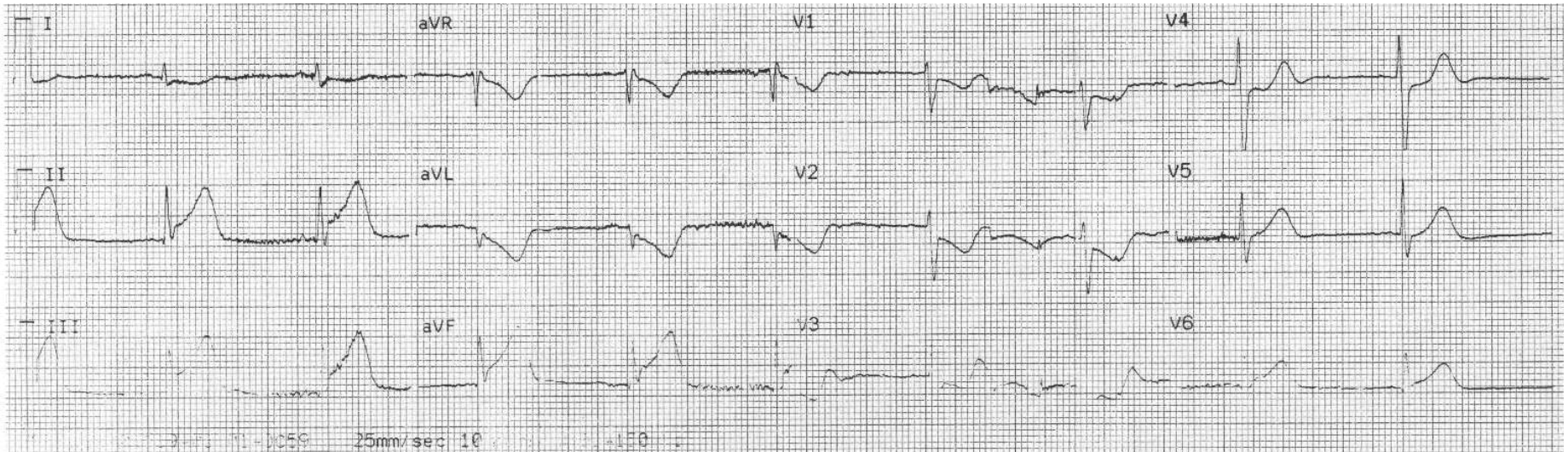
12/15 Lead review

### Section 3

To be completed and submitted to  
CEPCP by June 30, 2008

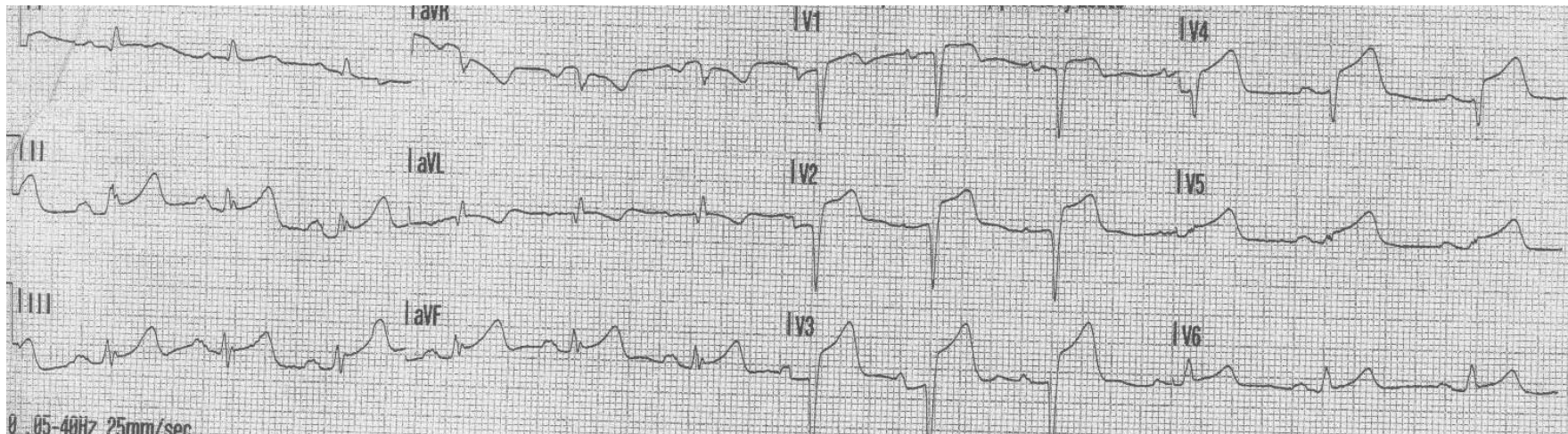
Name:\_\_\_\_\_

OASIS:\_\_\_\_\_

**12 lead Practice 1**

Review the 12 lead above and answer the following questions;

- 1) Interpretation\_\_\_\_\_
- 2) Which coronary artery is most likely blocked?\_\_\_\_\_
- 3) What signs and symptoms would you expect?\_\_\_\_\_
- 4) Is a 15 lead ECG indicated and if so what would you expect to see?\_\_\_\_\_
- 5) Is it safe to administer Ntg to this patient, assuming all indications and contraindications support it ?\_\_\_\_\_

**12 lead Practice 2**

Review the 12 lead above and answer the following questions;

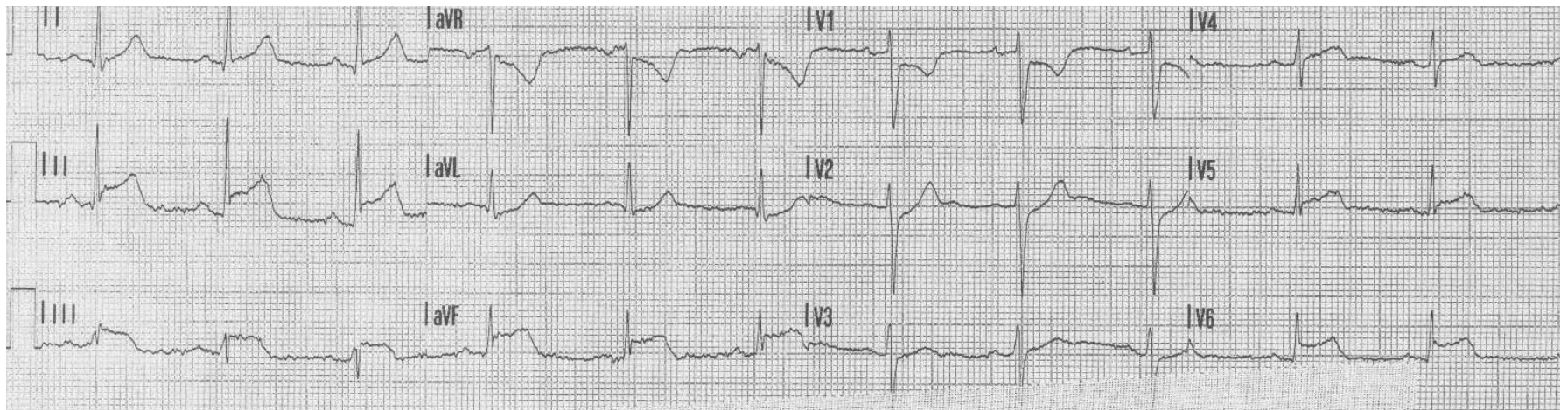
- 1) Interpretation\_\_\_\_\_
- 2) Which coronary artery is most likely blocked?\_\_\_\_\_
- 3) What signs and symptoms would you expect?\_\_\_\_\_
- 4) Is a 15 lead ECG indicated and if so what would you expect to see?\_\_\_\_\_
- 5) Is it safe to administer Ntg to this patient?\_\_\_\_\_

**Practice 12 lead #3**

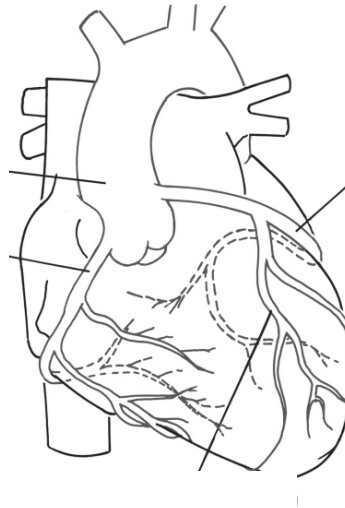
You are called to an office building where a 45 year old executive is complaining of chest pain after a very stressful situation at work. As you arrive you see a portly gentleman sitting at a desk, his tie loose around his neck, rubbing his chest. His skin is pale and sweaty and he looks rather distressed. Your partner hooks up a non-rebreather to the oxygen tank as you obtain a manual blood pressure (as you have long since recognized the inherent errors in the automatic NIBP).

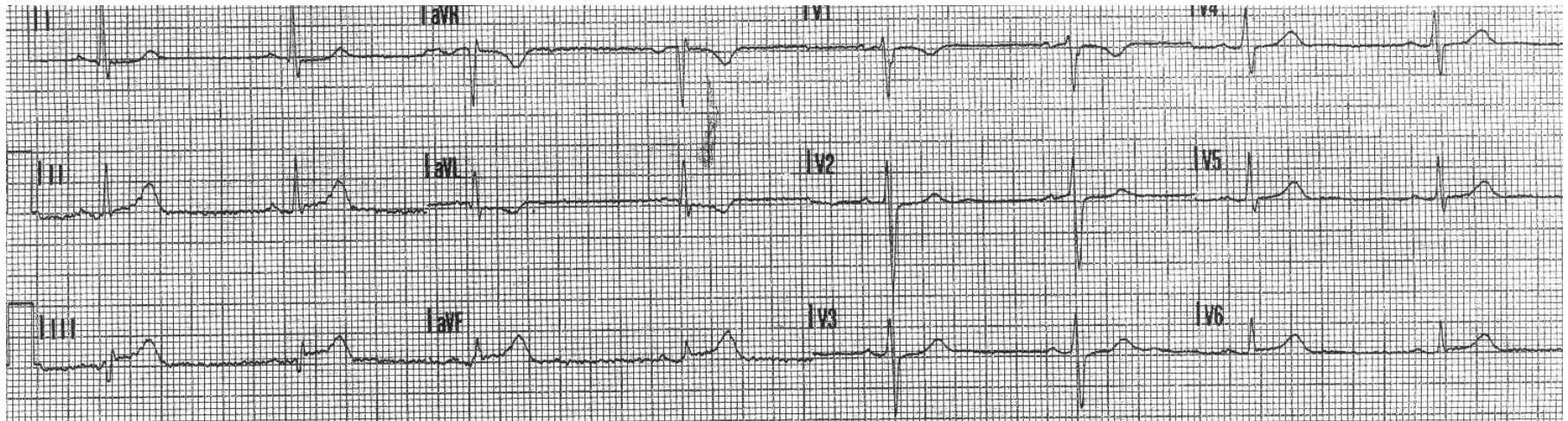
The gentleman tells you his pain started rather suddenly during a stressful telephone call and feels like a pressure in his chest. The inside of his arm is also sore and there is tingling of the fingers in the left hand. Your partner discreetly points out the gentleman's jugular veins that seem to distend along with the man's breathing. As you are talking to him he suddenly reaches for a garbage can and vomits violently in it. The chest sounds are clear. The patient explains that he suffers angina and sometimes need to use nitroglycerin when he plays golf. He wasn't sure if he should use it now as he figures this is stress related chest pain.

The blood pressure is 110/70. With the foul smell of vomit wafting through the stale office air your partner hands you the nitro bottle from the drug bag. The monitor is printing out the 12 lead and you look at it;



- 1) What is your interpretation of the 12 lead?\_\_\_\_\_
- 2) Is the vomiting and/or the jugular veins relevant to the patient presentation, if so how?\_\_\_\_\_
- 3) There seems to be S-T depression in V1 what is the likely cause of this?\_\_\_\_\_
- 4) Is a 15 lead indicated in this patient, if so what are you expecting to see?\_\_\_\_\_
- 5) Is it safe to administer nitroglycerin to this patient (provided there are no medical directive contraindications), explain why / why not?\_\_\_\_\_
- 6) Indicate on the diagram below which artery is most likely blocked;



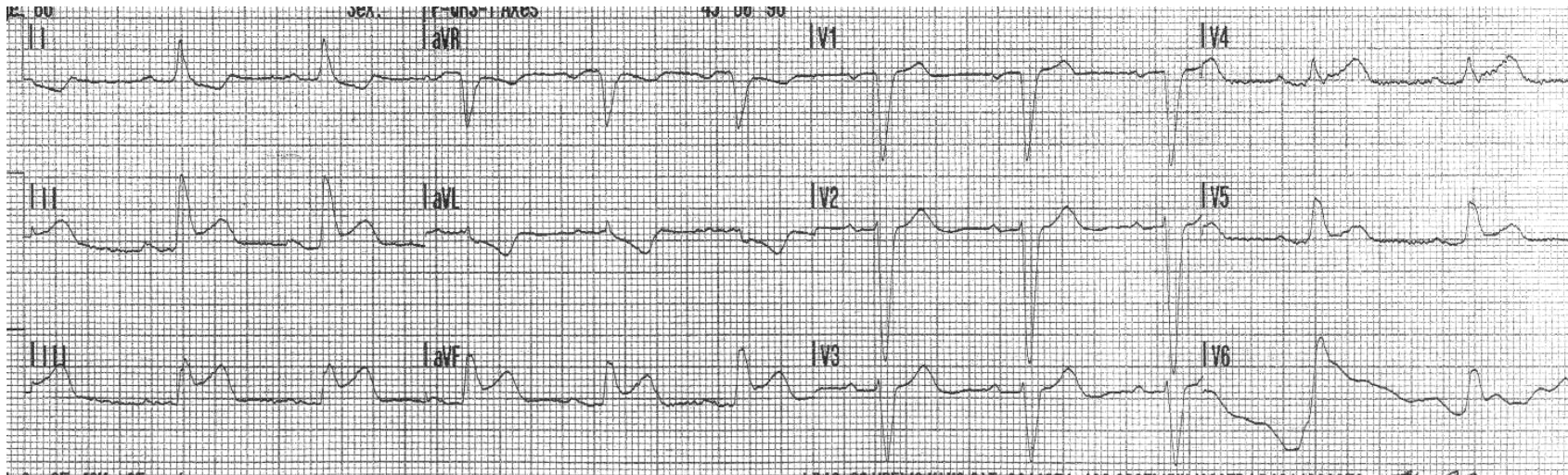
**12 lead practice # 4**

- 1) Review the twelve lead above, what is your interpretation? \_\_\_\_\_
- 2) The patients heart rate is 50 / min, what may be causing the bradycardia? \_\_\_\_\_
- 3) Is a 15 lead indicated in this patient, if so what are you expecting to see? \_\_\_\_\_
- 4) Is it safe to administer nitroglycerin to this patient? Why / why not? \_\_\_\_\_

**ECG Practice # 5**

You have responded to a nursing home where a 75 year old female is complaining of general weakness. She denies chest pain or shortness of breath. She has been vomiting for a couple of days and has also suffered loose stools. She is a non-insulin diabetic and takes glyburide and metformin, as well as several 'blood pressure' pills. Her ankles appear edematous and she has dementia.

Your partner obtains a 12 lead and hands it to you;



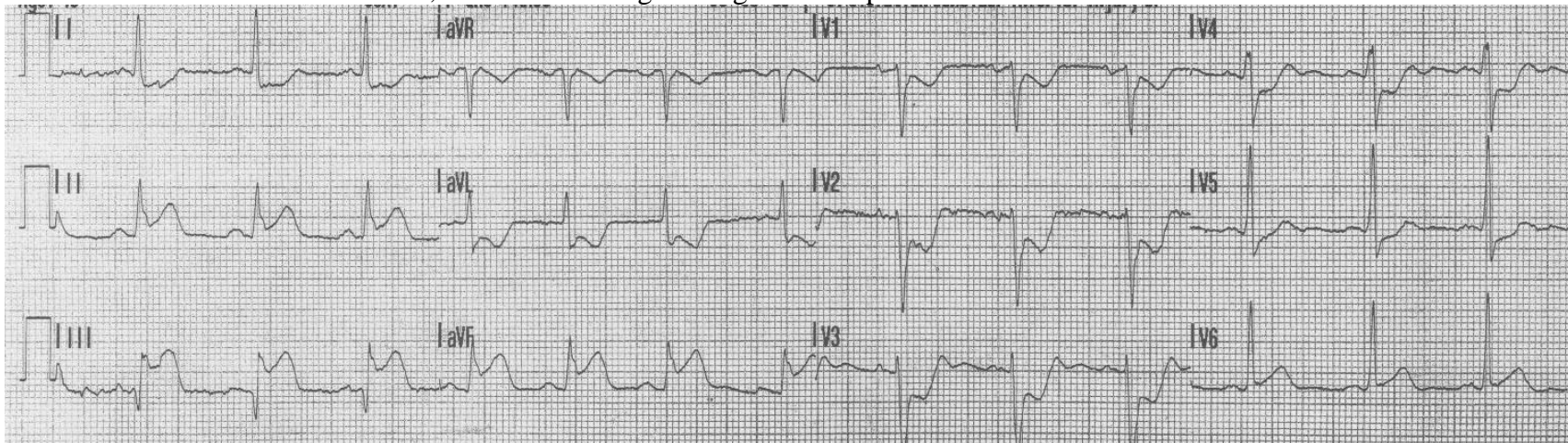
- 1) Your interpretation is? \_\_\_\_\_
- 2) Is a 15 lead ECG indicated, if so what are you expecting to see? \_\_\_\_\_
- 3) Should you administer ASA / Ntg to this patient if she has no contraindications? \_\_\_\_\_



**ECG Practice #6**

You are called to a Doctors office in a strip mall. A gentleman is at his family doctor being assessed for on/off chest pain for the last month. He is also having follow-up work to determine if his simvastatin prescription is controlling his high cholesterol levels. The patient starts experiencing chest pain while being assessed by his physician so 9-1-1 is called.

When you arrive the patient is still suffering chest pain. The physician has administered one dose of nitroglycerin (although the patient doesn't have a prescription yet). The physician has also given the patient two 81mg ASA to chew. The pain is still present, described as a 'pressure' 7/10, non radiating and the patient also feels 'winded'. Taking a deep breath doesn't make the pain worse and the chest sounds clear. BP is 126/72, Pulse is 75 strong and regular. You print off a 12 lead.

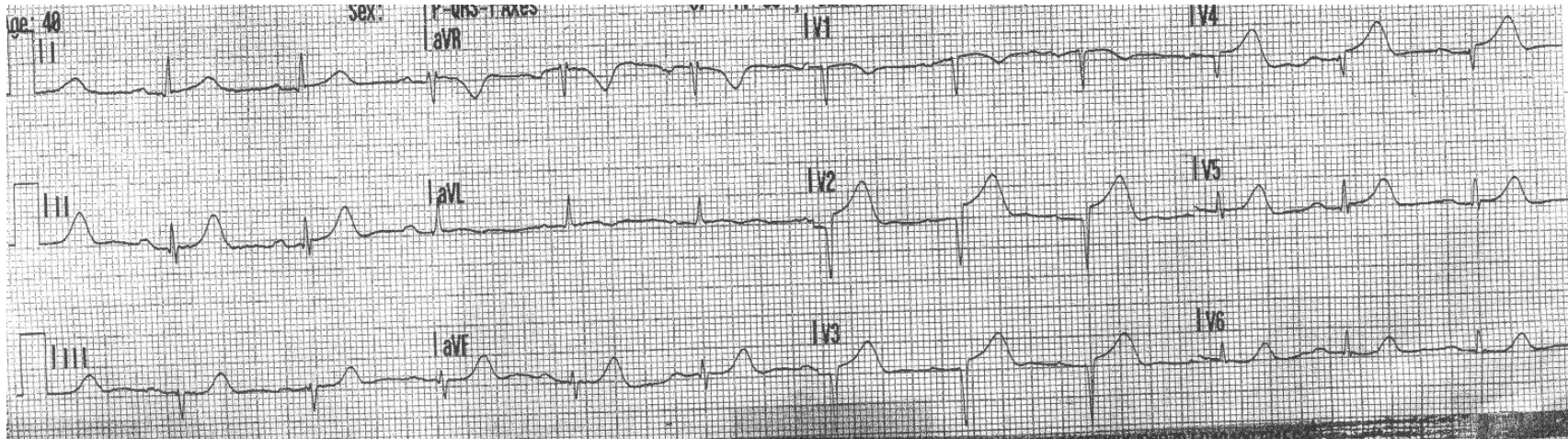


- 1) Which coronary artery is most likely occluded?\_\_\_\_\_
- 2) What part of the heart is possibly damaged?\_\_\_\_\_
- 3) What specific physical assessments would you perform on this patient, why?\_\_\_\_\_
- 4) Is a 15 lead indicated, if so what are you expecting to see?\_\_\_\_\_
- 5) Would you continue nitroglycerine administration, why/ why not?\_\_\_\_\_

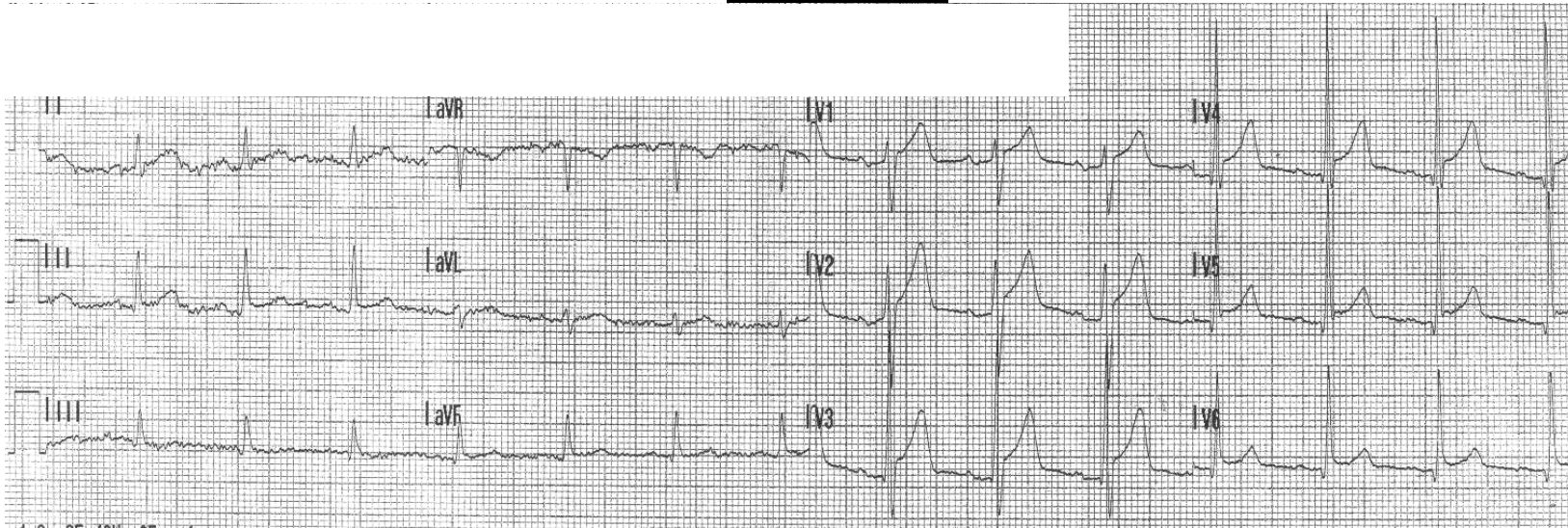


**ECG Practice #7**

You are called to a local recreation center where a 40 year old female is suffering chest pain after playing a game of squash. She is embarrassed for all the attention (not to mention all the firefighters and paramedics in the change room). She claims she is fine and probably pulled a muscle while playing. She reluctantly admits that her chest still hurts 'a bit'. You ask her to move her arm around to see if the pain gets worse, she states she is 'pretty sure' it does. With some coaxing she allows you to obtain a 12 lead ECG:



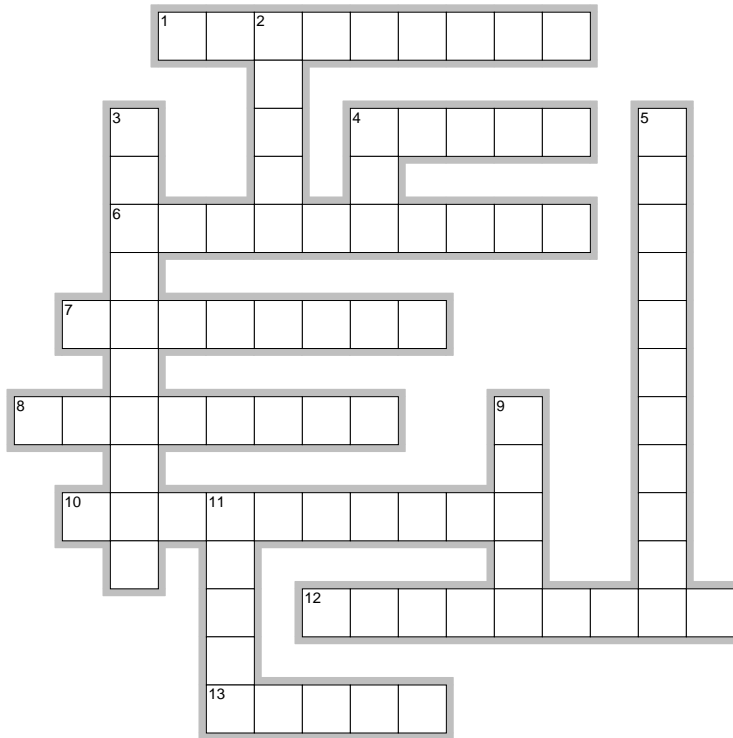
- 1) What is your interpretation? \_\_\_\_\_
- 2) Is a 15 lead ECG indicated, if so what are you expecting to see? \_\_\_\_\_
- 3) Outline your treatment for this otherwise completely healthy lady with no medical history, no meds, no allergies;  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 4) What signs and symptoms would you expect to see in this patient? \_\_\_\_\_  
\_\_\_\_\_

**ECG Practice #8**

You are dispatched as a second vehicle in for a two vehicle MVC. A 76 year old male with an extensive cardiac history is suffering chest pain. The patient was the unrestrained driver of a small car that rear ended a snowplow. The first crew has the patient in the back of their unit and have immobilized the patient as well as obtained a 12 lead ECG. They are busy extricating the patient's wife as there is extensive damage to the car and she remains trapped. They hand the patient off to you. You find a round steering wheel bruise on the chest wall, the patient states it hurts to breathe, breath sounds are equal and clear. There is JVD present in the supine position. The BP is 118/40, pulse is 80.

- 1) Your interpretation?\_\_\_\_\_
- 2) Is the JVD significant, why / why not?\_\_\_\_\_
- 3) Is a 15 lead ECG indicated, if so what are you expecting to see?\_\_\_\_\_
- 4) If there are no contraindications should nitroglycerin / ASA be administered, why / why not?\_\_\_\_\_

## 12 / 15 lead ECG Crossword



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### Across

1. Elevation in V8 and V9 indicates this wall is dying.
4. Pre-load refers to the amount of blood coming from the \_\_\_\_\_ to the heart.
6. Depression in V1 and V2 is often this type of change to a posterior wall infarct.
7. This sign is characterized by JVD on inhalation.
8. Elevation in II, III and AvF is indicative of this type of MI.
10. The left coronary artery splits into the circumflex and the left anterior \_\_\_\_\_ artery.
12. This pattern seen in an anterior MI often results in a patient needing one.
13. Nitroglycerin can be dangerous in a \_\_\_\_\_ ventricular infarct.

### Down

2. This is a common short form for acute heart attacks visible on the 12 lead.
3. In 20% of inferior MIs this is the occluded vessel.
4. Look for ST elevation in this lead if you suspect a RVI
5. One of the signs in a right sided MI.
9. This nerve causes vomiting and cardiac slow down.
11. The sounds in the lungs of a RVI.