

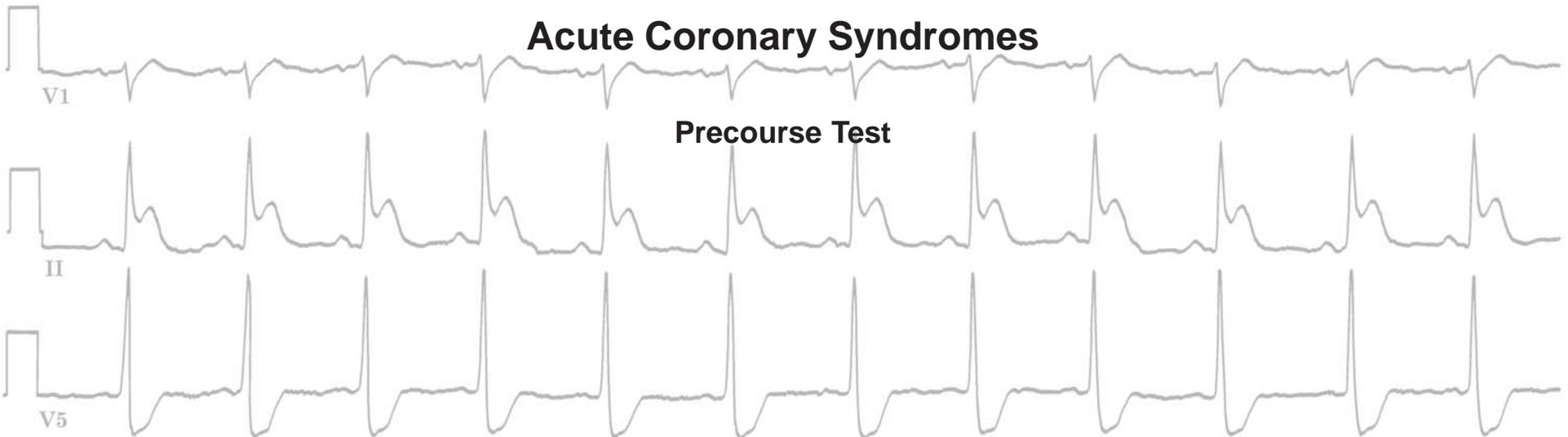


Medical Training and Simulation Laboratory
Center for Research in Medical Education



The Emergency Management of Acute Coronary Syndromes

Precourse Test



**THE EMERGENCY MANAGEMENT OF ACUTE CORONARY SYNDROMES
MULTIPLE CHOICE QUESTIONS**

- 1. An acute ST-elevation myocardial infarction, regardless of the degree of coronary artery atherosclerosis, is mainly the result of:**

 - a. coronary artery spasm
 - b. ventricular fibrillation
 - c. thrombotic occlusion
 - d. ventricular aneurysm
 - e. plaque formation

- 2. Which of the following is the most typical result of acute right coronary artery occlusion?**

 - a. acute pulmonary edema
 - b. sinus tachycardia
 - c. anterior wall infarction
 - d. inferior wall infarction
 - e. ventricular tachycardia

- 3. The proper calibration for a 12 Lead ECG is 1 mV. This is equal to a height of:**

 - a. 1 small box
 - b. 5 small boxes
 - c. 10 small boxes
 - d. 15 small boxes
 - e. 20 small boxes

- 4. Each of the following is a correct guideline for placing chest electrodes on a patient, except:**

 - a. V4, 5 and 6 are in a straight line
 - b. the sternal angle is at the level of the second rib
 - c. V1 and V2 are parasternal
 - d. the interspaces are above the corresponding ribs
 - e. the interspaces are below the corresponding ribs

- 5. Which one of the following is least important when taking a focused prehospital history in a patient with an acute coronary syndrome?**

 - a. events prior to the episode
 - b. allergies
 - c. medications
 - d. smoking history
 - e. last meal

6. **The symptoms associated with an acute myocardial infarction usually last:**
- a. 5 to 15 minutes
 - b. more than 20 minutes
 - c. more than 60 minutes
 - d. more than 6 hours
 - e. more than 12 hours
7. **Each of the following is a contraindication (exclusion criterion) for fibrinolytic therapy, except:**
- a. recurrent ventricular tachycardia
 - b. recent cervical disc surgery
 - c. suspected aortic dissection
 - d. active internal bleeding
 - e. recent stroke
8. **Each of the following is a correct statement regarding nitroglycerin, except:**
- a. hypotension is a side effect
 - b. bleeding is a side effect
 - c. reduces cardiac work
 - d. improves coronary blood flow
 - e. headache is a side effect
9. **Each of the following is a correct statement regarding the use of aspirin, except:**
- a. prevents clot formation
 - b. promotes bleeding
 - c. lyses blood clots
 - d. decreases platelet stickiness
 - e. should be chewed for rapid effect
10. **Morphine sulfate can cause all of the following, except:**
- a. nausea and vomiting
 - b. hypotension
 - c. respiratory depression
 - d. reduced cardiac work
 - e. decreased platelet stickiness

11. Which of the following patients is not a candidate for thrombolytic therapy:

- a. 51 y/o female with upper abdominal pain and 1.5mm of ST elevation in leads II, III and aVF
- b. 70 y/o male with severe substernal chest pain and LBBB
- c. 45 y/o male with chest pain and RBBB
- d. 66 y/o female with acute dyspnea and 2mm of ST elevation in leads I and aVL
- e. 55 y/o male with jaw pain and 1.5mm of ST elevation in V4, V5 and V6

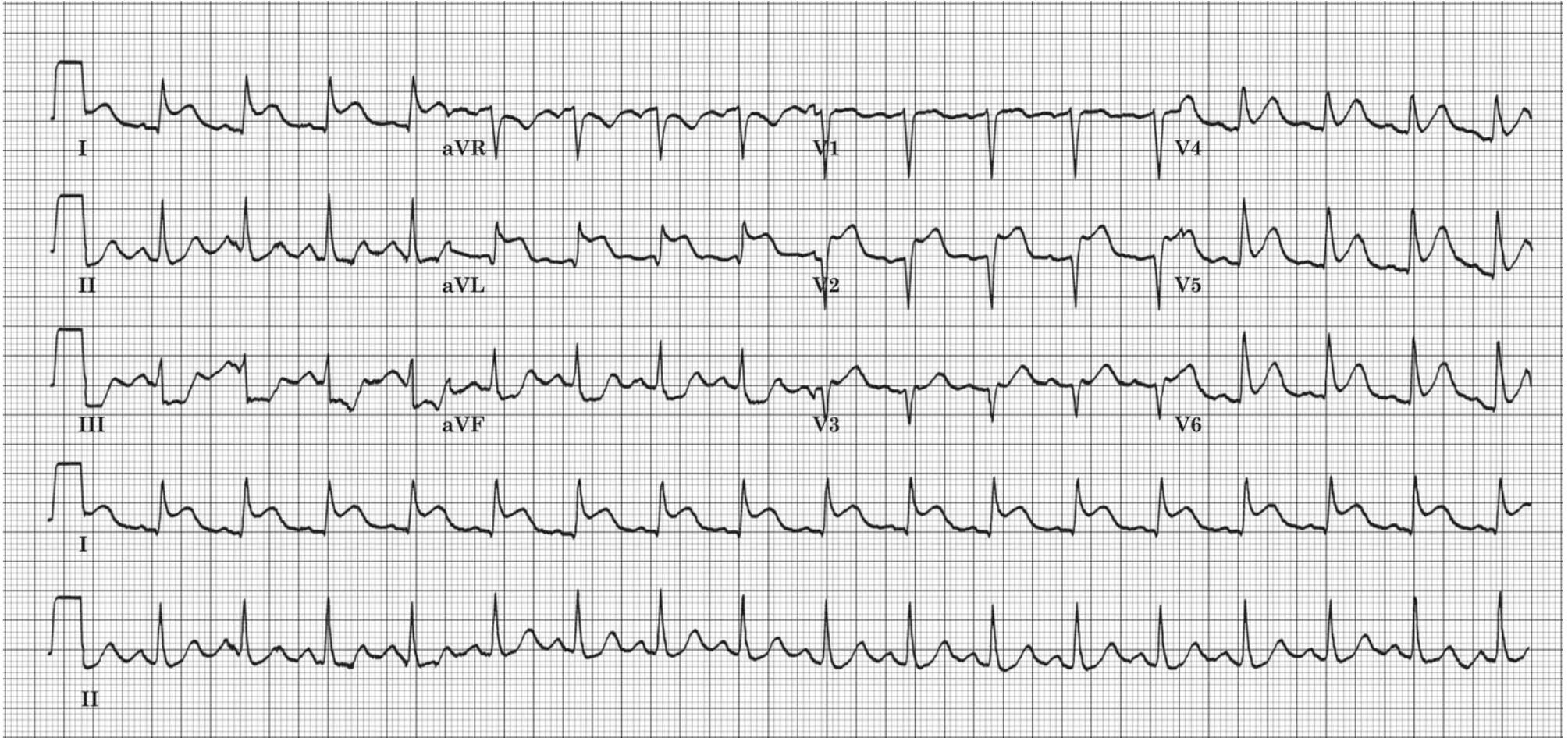
12. In the setting of AMI, all of the following define the high risk patient except one:

- a. heart rate of 100 BPM or more
- b. blood pressure of 100 mm Hg or less
- c. pulmonary edema (crackles more than 1/2 way up)
- d. atrial fibrillation
- e. shock

13. Each of the following bedside findings may be associated with congestive failure in the setting of an acute myocardial infarction, except:

- a. tachycardia
- b. cool, diaphoretic skin
- c. third heart sound
- d. friction rub
- e. crackles and wheezes

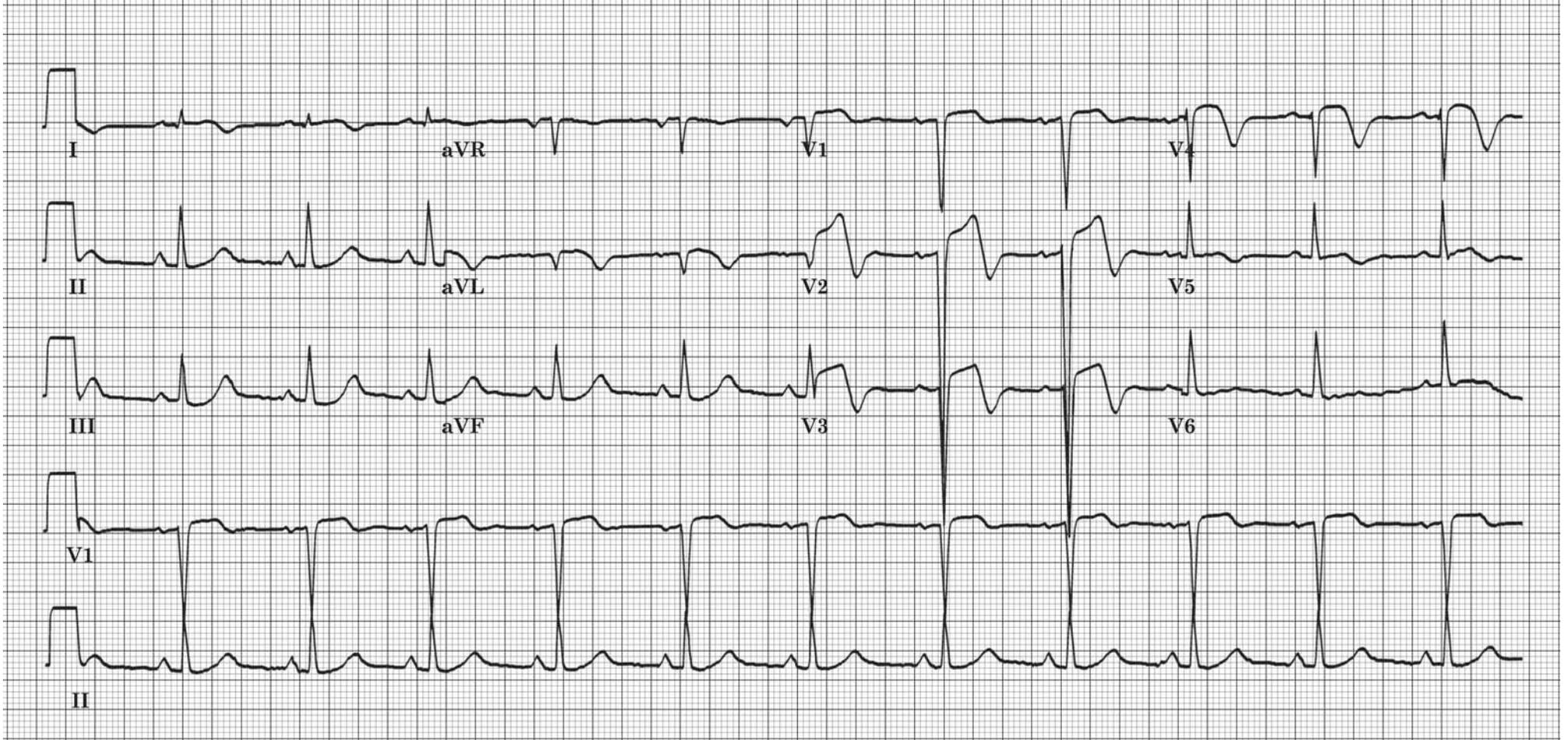
ECG 14



14. What is your interpretation of the electrocardiogram shown above?

- a. early repolarization
- b. acute inferior wall infarction
- c. acute anterior wall infarction
- d. acute pericarditis
- e. left bundle branch block

ECG 15



15. What is your interpretation of the electrocardiogram shown above?

- a. acute inferior wall infarction
- b. left bundle branch block
- c. acute inferolateral wall infarction
- d. early repolarization
- e. acute anterior wall infarction

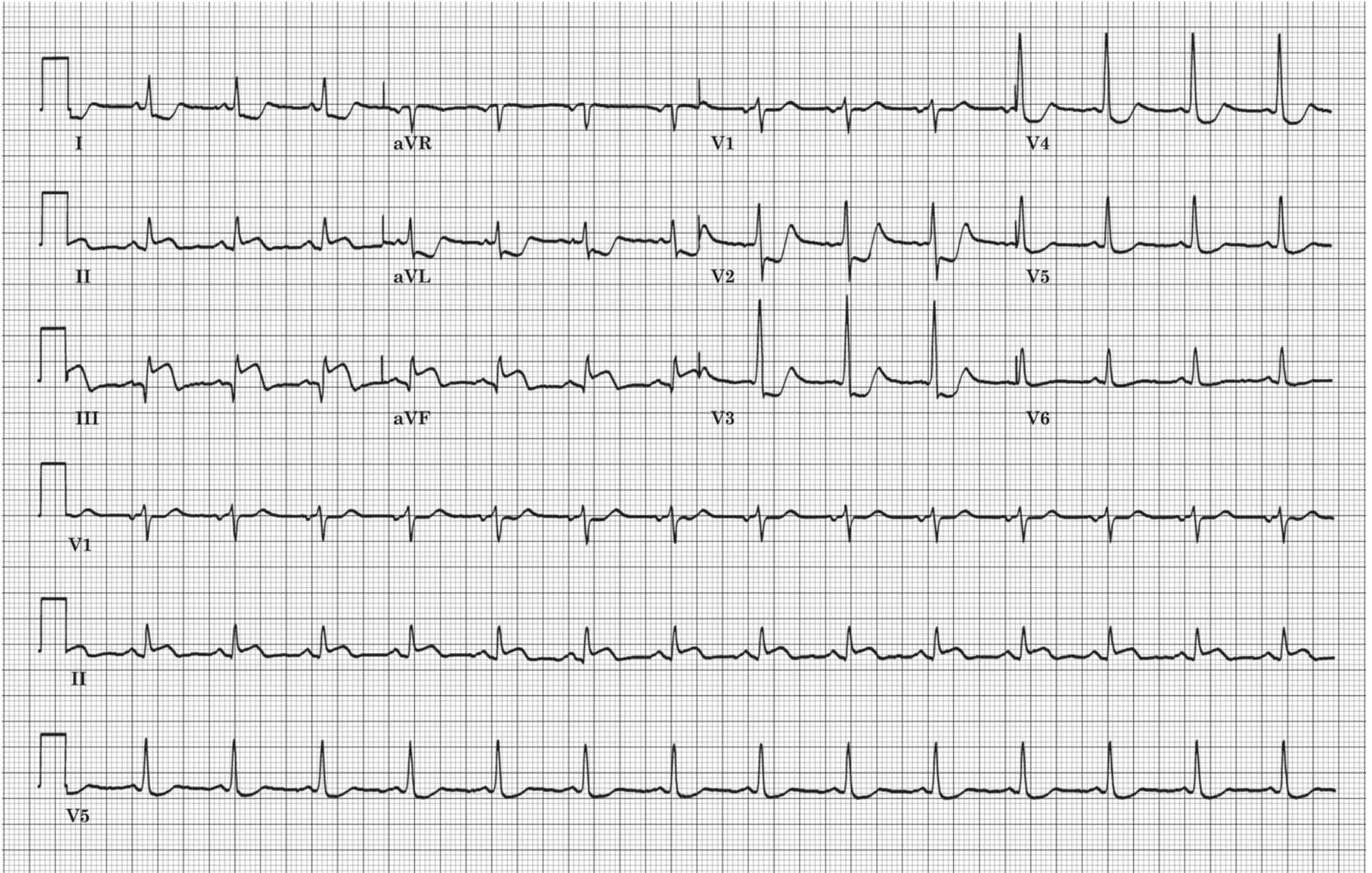
ECG 16



16. What is your interpretation of the electrocardiogram shown above?

- a. acute anterolateral wall infarction
- b. anterior wall subendocardial injury
- c. left bundle branch block
- d. acute inferior wall infarction
- e. old inferior wall infarction

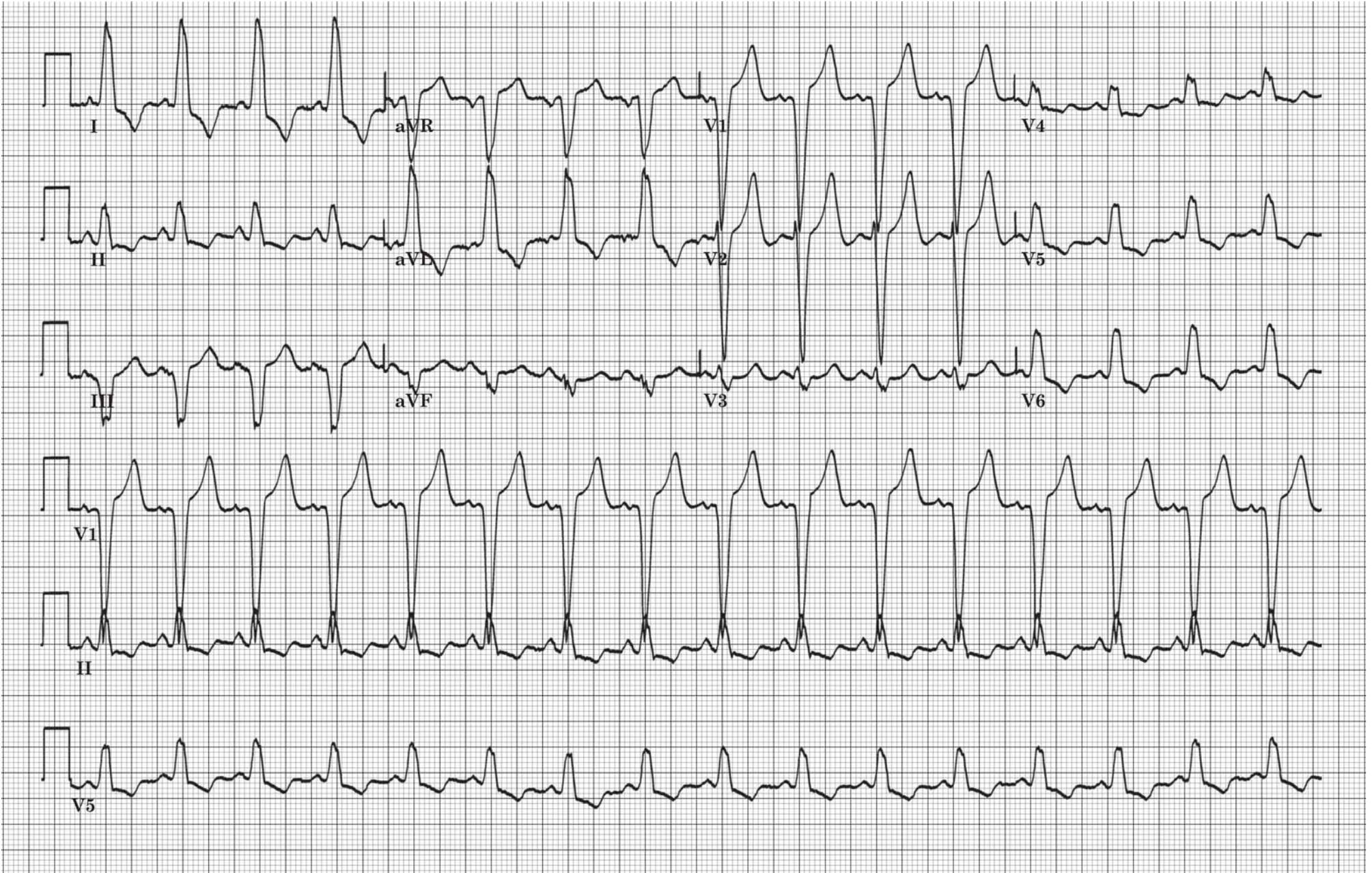
ECG 17



17. What is your interpretation of the electrocardiogram shown above?

- a. anterior wall subendocardial injury
- b. acute inferior wall infarction
- c. left ventricular hypertrophy
- d. ventricular pacemaker
- e. acute pericarditis

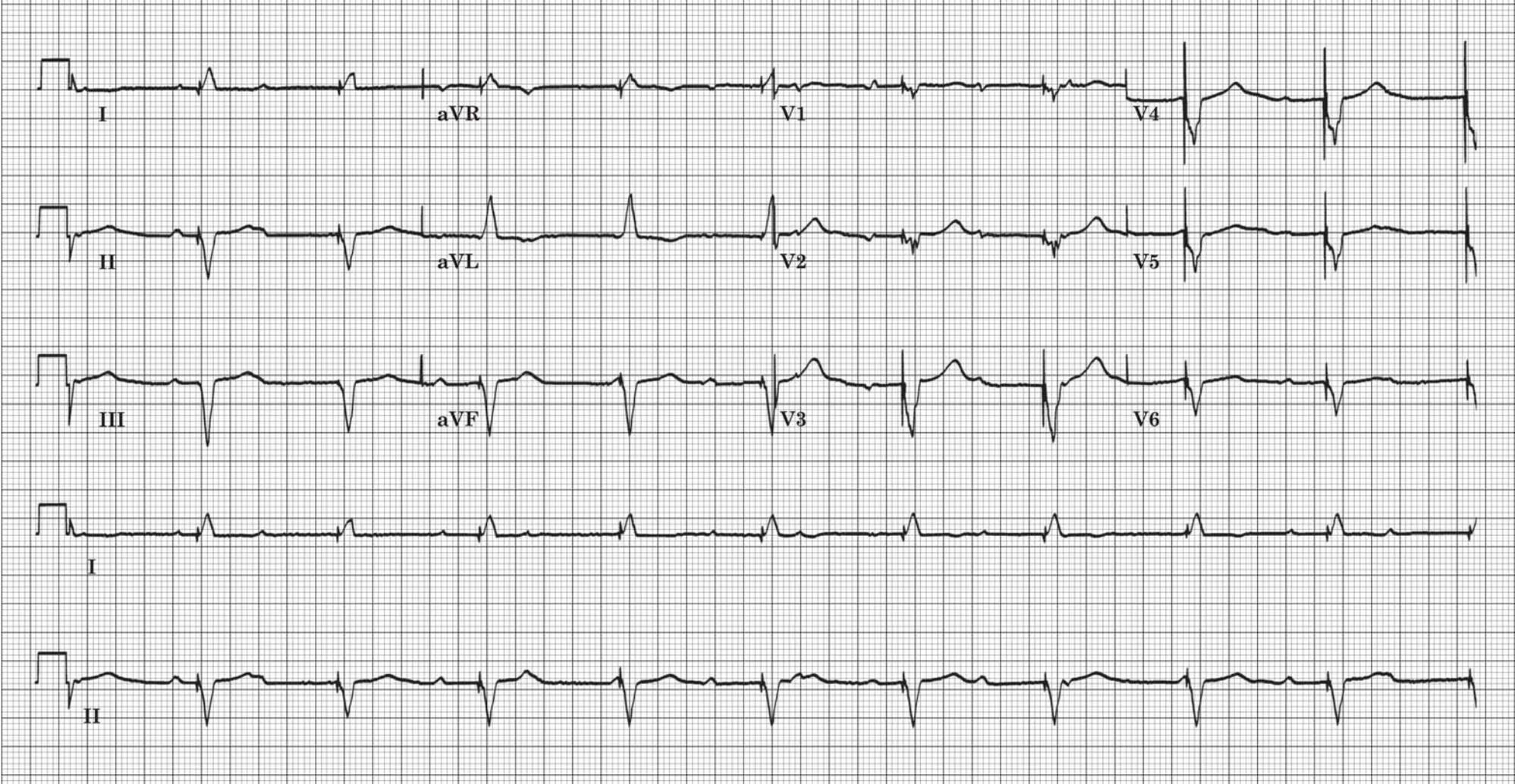
ECG 18



18. What is your interpretation of the electrocardiogram shown above?

- a. left bundle branch block
- b. anterior wall subendocardial injury
- c. acute inferior wall infarction
- d. right bundle branch block
- e. ventricular pacemaker

ECG 19



19. What is your interpretation of the electrocardiogram shown above?

- a. left bundle branch block
- b. anterior wall subendocardial injury
- c. acute inferior wall infarction
- d. right bundle branch block
- e. ventricular pacemaker

CASE 1



CASE 1

CHIEF COMPLAINT: 62 yr. male accountant with severe chest pain of 1 hour duration

HISTORY:	PAIN:	ADDITIONAL:
Provocation:	none - awakened	Symptoms (other): short of breath
Quality:	crushing	Allergies: Penicillin
Region:	substernal	Medications: Nuprin, 1 aspirin daily
Radiation:	left shoulder	Past History: mild arthritis
Relief:	none	Last Meal: 7 hrs. ago
Severity:	9/10	Events Prior: sleeping
Time:	1 hr.	

VITAL SIGNS: Pulse: 95 BP: Lt. 180/100 Other: anxious, diaphoretic
Resp: 24 Rt. 170/100

INITIAL MANAGEMENT: oxygen / IV started / rhythm strip

ADDITIONAL PHYSICAL: recheck BP: Lt. - 150/90 Rt. - 150/90

BASED ON THE ECG AND CLINICAL INFORMATION SHOWN ABOVE, PLEASE ANSWER THE FOLLOWING QUESTIONS:

20. What is your interpretation of the patient's ECG?

- | | |
|-----------------------------------|-----------------------------|
| a. early repolarization | d. acute pericarditis |
| b. acute inferior wall infarction | e. left bundle branch block |
| c. acute anterior wall infarction | |

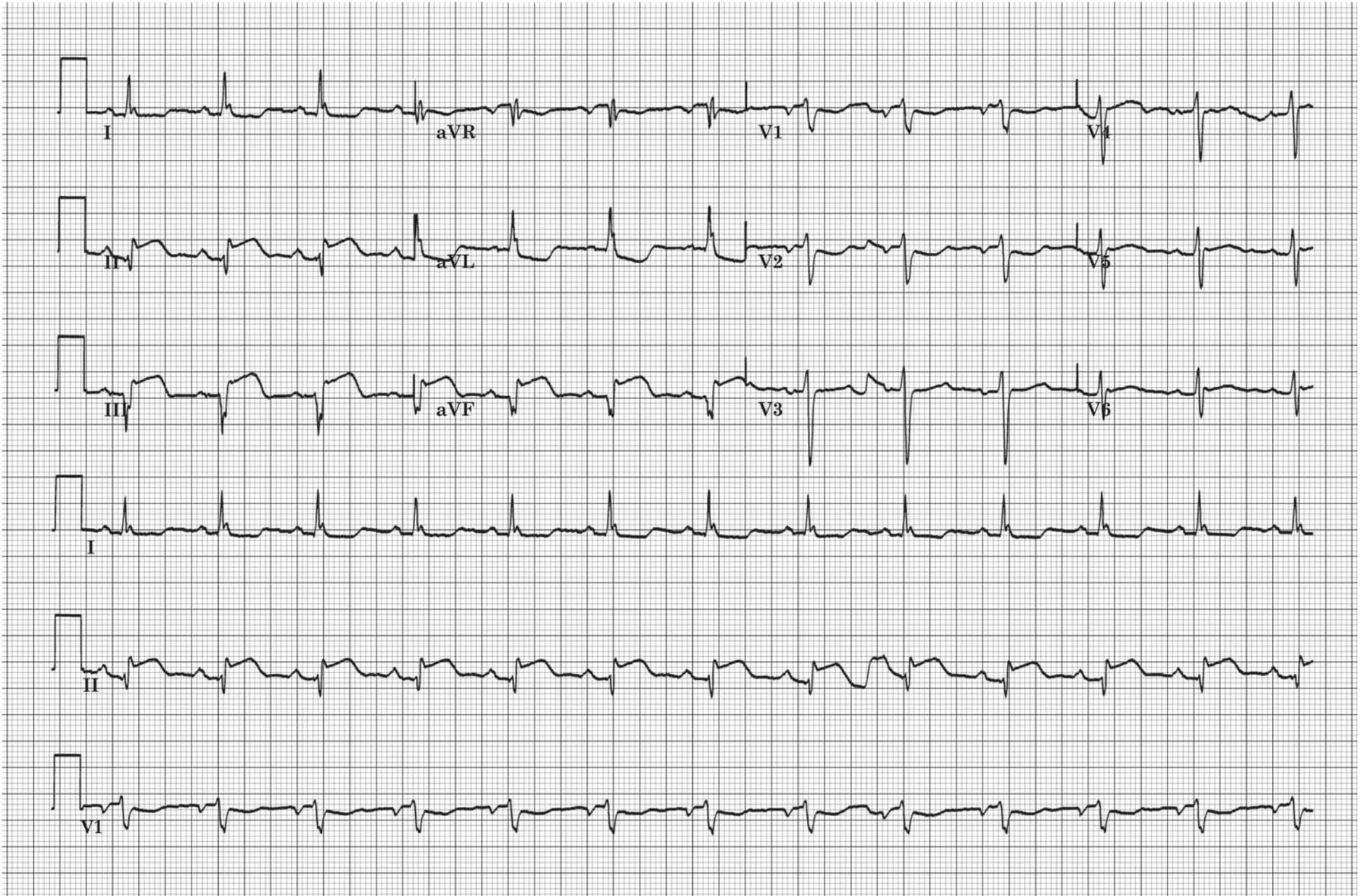
21. What is your additional management? Choices: NTG, ASA, Morphine, Lasix, Fluids

- | | |
|----------------------------|-----------------------------|
| a. NTG, ASA, morphine | d. NTG, morphine and fluids |
| b. NTG and morphine | e. ASA and morphine |
| c. NTG, morphine and lasix | |

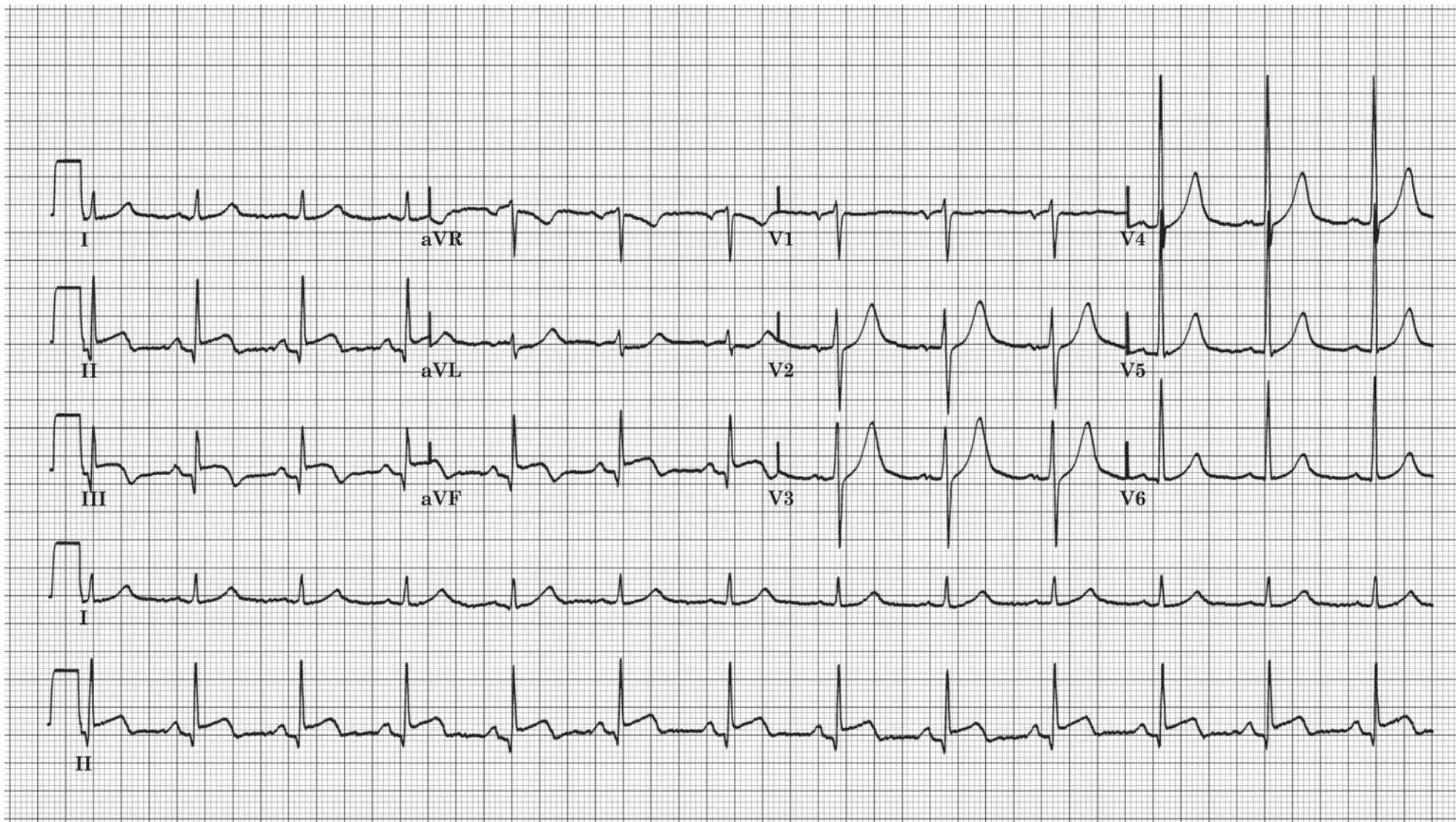
22. Is this patient a candidate for fibrinolytic therapy?

- a. Yes
- b. No

CASE 2



CASE 3



CASE 3

CHIEF COMPLAINT: 49 yr. male computer programmer with severe indigestion of 1½ hours duration

HISTORY:	PAIN:	ADDITIONAL:
Provocation: changing tire	Symptoms (other): vomited twice	
Quality: indigestion + pressure	Allergies: none	
Region: upper abdomen	Medications: Zantac	
Radiation: none	Past History: bleeding ulcer 1 wk. ago, transfusion	
Relief: none	Last Meal: 1 hour ago - lunch	
Severity: 8/10	Events Prior: flat tire driving to office	
Time: 1½ hrs.		

VITAL SIGNS: Pulse: 82 BP: Lt. 110/70 Other: diaphoretic, pale
Resp: 18 Rt. 120/80

INITIAL MANAGEMENT: oxygen / IV started / rhythm strip

ADDITIONAL PHYSICAL: abdominal examination negative

BASED ON THE ECG AND CLINICAL INFORMATION SHOWN ABOVE, PLEASE ANSWER THE FOLLOWING QUESTIONS:

26. What is your interpretation of the patient's ECG?

- | | |
|--|--------------------------|
| a. anterior wall subendocardial injury | d. ventricular pacemaker |
| b. acute inferior wall infarction | e. acute pericarditis |
| c. complete left ventricular hypertrophy | |

27. What is your additional management? Choices: NTG, ASA, Morphine, Lasix, Fluids

- | | |
|----------------------------|-----------------------------|
| a. NTG, ASA, morphine | d. NTG, morphine and fluids |
| b. NTG and morphine | e. ASA and morphine |
| c. NTG, morphine and lasix | |

28. Is this patient a candidate for fibrinolytic therapy?

- a. Yes
- b. No