

## QUESTION

A 65-year-old male patient with a long history of hypertension and hyperlipidemia presents to the emergency department with acute chest pain. The pain is described as a heavy, crushing pressure in the center of the chest, lasting for approximately 30 minutes. The patient has a history of smoking 20 cigarettes per day for 30 years and has no known allergies. His vital signs are: blood pressure 180/110 mmHg, heart rate 110 bpm, respiratory rate 20 breaths per minute, and oxygen saturation 92% on room air. Physical examination reveals a clear lung field, normal heart sounds, and no lower extremity edema. An electrocardiogram (ECG) shows ST-segment depression in leads II, III, and aVF, and ST-segment elevation in leads V1, V2, and V3. The patient's medical history includes hypertension, hyperlipidemia, and a recent diagnosis of atrial fibrillation. He is currently on amlodipine, atorvastatin, and warfarin.

## ANSWER

The patient's presentation is consistent with a non-ST-elevation myocardial infarction (NSTEMI). The key features include acute chest pain with a heavy, crushing quality, ST-segment depression in leads II, III, and aVF, and ST-segment elevation in leads V1, V2, and V3. The patient's risk factors, including hypertension, hyperlipidemia, and smoking, further support this diagnosis. The absence of ST-segment elevation in leads I, aVL, and V4-V6 suggests a partial-thickness infarction. The patient's current medications, including warfarin, should be considered in the management plan.

**KEY POINTS:**

- Acute chest pain with a heavy, crushing quality.
- ST-segment depression in leads II, III, and aVF.
- ST-segment elevation in leads V1, V2, and V3.
- History of hypertension, hyperlipidemia, and smoking.
- Current medications: amlodipine, atorvastatin, and warfarin.

## DISCUSSION



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