

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 a family history of premature coronary artery disease. He is currently on amlodipine and atorvastatin. The patient's 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 pale, diaphoretic patient with a third heart sound (S3) and a mild crackle in the right lower lung field. The ECG shows ST-segment depression in leads II, III, and aVF, and ST-segment elevation in leads V1 and V2. The patient's chest X-ray is unremarkable. The patient is given aspirin, nitroglycerin, and morphine. The patient is transferred to the cardiac catheterization laboratory for a percutaneous coronary intervention (PCI).

Parameter	Value
Blood Pressure	180/110 mmHg
Heart Rate	110 bpm
Respiratory Rate	20 breaths per minute
Oxygen Saturation	92% on room air
ECG Findings	ST-segment depression in leads II, III, and aVF; ST-segment elevation in leads V1 and V2
Chest X-ray	Unremarkable

What is the most likely diagnosis for this patient?

ANSWER



The patient's presentation is consistent with a non-ST-elevation myocardial infarction (NSTEMI) or unstable angina. The key findings include a heavy, crushing chest pain, a high-risk ECG (ST-segment depression in leads II, III, and aVF, and ST-segment elevation in leads V1 and V2), and a high-risk clinical profile (hypertension, hyperlipidemia, smoking, and family history of premature coronary artery disease). The patient's vital signs and physical examination findings (pale, diaphoretic patient, S3, and mild crackle) are also consistent with a diagnosis of NSTEMI/Unstable Angina. The chest X-ray is unremarkable, which is typical for NSTEMI/Unstable Angina. The patient's symptoms and ECG findings are the most important clues to the diagnosis.

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