

QUESTION
 A 65-year-old male patient with a long history of hypertension and hyperlipidemia presents to the emergency department with a 2-day history of severe, crushing chest pain. The pain is described as a heavy weight on his chest and is exacerbated by exertion. He has a history of smoking 20 cigarettes per day for 30 years. His medical history is significant for a previous myocardial infarction 10 years ago, which was treated with percutaneous coronary intervention. He is currently on aspirin, beta-blockers, and statins. On arrival, he is found to be diaphoretic and has a heart rate of 110 bpm, blood pressure of 180/100 mmHg, and oxygen saturation of 92% on room air. ECG shows ST-segment elevation in leads II, III, and aVF.

ANSWER

Step	Findings	Interpretation
1. History	Severe, crushing chest pain, 2-day duration, exacerbated by exertion.	Highly suggestive of acute coronary syndrome (ACS).
2. Physical Exam	Diaphoretic, tachycardic (HR 110 bpm), hypertensive (BP 180/100 mmHg).	Consistent with ACS and possible complications like hypertension.
3. ECG	ST-segment elevation in leads II, III, and aVF.	Indicates a posterior wall myocardial infarction (MI).
4. Risk Factors	Age (65), male sex, hypertension, hyperlipidemia, smoking (20 cigarettes/day for 30 years), previous MI.	Significantly increased risk for ACS.
5. Management	Immediate reperfusion therapy (primary PCI or thrombolysis), aspirin, beta-blockers, nitroglycerin, and oxygen.	Standard of care for ST-elevation MI (STEMI).

ACUTE CORONARY SYNDROME



The patient's presentation is consistent with an acute coronary syndrome (ACS), specifically a ST-segment elevation myocardial infarction (STEMI). The symptoms of severe, crushing chest pain, diaphoresis, and tachycardia, along with the ECG findings of ST-segment elevation in leads II, III, and aVF, strongly suggest a large vessel occlusion in the posterior wall of the left ventricle.

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 The patient's presentation is consistent with an acute coronary syndrome (ACS), specifically a ST-segment elevation myocardial infarction (STEMI). The symptoms of severe, crushing chest pain, diaphoresis, and tachycardia, along with the ECG findings of ST-segment elevation in leads II, III, and aVF, strongly suggest a large vessel occlusion in the posterior wall of the left ventricle.