

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. He is currently on amlodipine, atorvastatin, and aspirin. 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 pale, diaphoretetic patient with a 3rd heart sound (S3) and a 4th heart sound (S4). The lungs are clear, and there are no murmurs, rubs, or crackles. An electrocardiogram (ECG) shows ST-segment elevation in leads V1, V2, and V3, consistent with an anterior wall myocardial infarction. The patient's chest X-ray is unremarkable. Laboratory tests show a troponin I level of 0.15 ng/mL and a creatine phosphokinase-MB (CK-MB) level of 10.5 U/L. The patient is diagnosed with an acute anterior wall myocardial infarction.

The patient is transferred to the cardiac catheterization laboratory for primary percutaneous coronary intervention (PPCI). The procedure is successful, and the culprit lesion is treated with stent placement. The patient is discharged on aspirin, clopidogrel, and a beta-blocker. He is advised to quit smoking and to follow a heart-healthy diet. The patient's condition is stable, and he is discharged home on the 5th day of hospitalization.

What is the most appropriate management for this patient?

ANSWER

The most appropriate management for this patient is primary percutaneous coronary intervention (PPCI) with stent placement. This patient has an acute anterior wall myocardial infarction (AMI) with ST-segment elevation in leads V1, V2, and V3. The patient is a high-risk individual due to his long history of hypertension, hyperlipidemia, and smoking. The presence of a 3rd heart sound (S3) and a 4th heart sound (S4) suggests left ventricular failure. The patient's chest X-ray is unremarkable, and his oxygen saturation is 92% on room air. The patient's ECG shows ST-segment elevation in leads V1, V2, and V3, consistent with an anterior wall AMI. The patient's troponin I level is 0.15 ng/mL, and his CK-MB level is 10.5 U/L. The patient is transferred to the cardiac catheterization laboratory for PPCI. The procedure is successful, and the culprit lesion is treated with stent placement. The patient is discharged on aspirin, clopidogrel, and a beta-blocker. He is advised to quit smoking and to follow a heart-healthy diet. The patient's condition is stable, and he is discharged home on the 5th day of hospitalization.

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