

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 patient reports a 15-minute episode of severe, crushing chest pain that radiates to his left arm and jaw. He is currently on amlodipine and atorvastatin. His vital signs are: blood pressure 180/100 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 elevation in leads V1, V2, and V3, consistent with an anterior wall myocardial infarction.

ANSWER
 The patient is experiencing an acute anterior wall myocardial infarction (MI). The primary goal of treatment is to restore coronary blood flow as quickly as possible to minimize myocardial damage. The standard of care for ST-elevation MI (STEMI) is primary percutaneous coronary intervention (PPCI) with stent placement. If PPCI is not available within 120 minutes of symptom onset, intravenous (IV) fibrinolytic therapy is indicated. The patient's blood pressure is significantly elevated (180/100 mmHg), which is a common finding in the hyperadrenergic state of an acute MI. Management includes aspirin, P2Y12 inhibitor (e.g., ticagrelor or clopidogrel), and a third antiplatelet agent (e.g., aspirin, P2Y12 inhibitor, and a glycoprotein IIb/IIIa inhibitor) if the patient is to undergo PPCI. Beta-blockers should be administered if there is no contraindication, such as heart failure or bradycardia.

KEY POINTS

1. **Recognize the symptoms of an acute MI:** Chest pain, often described as crushing or pressure, radiating to the arm, jaw, or back.

2. **Obtain a 12-lead ECG:** ST-segment elevation in two or more contiguous leads is diagnostic for STEMI.

3. **Initiate reperfusion therapy:** PPCI is preferred over fibrinolytics if available within 120 minutes.

4. **Manage blood pressure:** Treat severe hypertension (systolic BP > 200 mmHg or diastolic BP > 120 mmHg) with IV beta-blockers or calcium channel blockers.

Medication	Dose	Frequency	Notes
Aspirin	162 mg	PO	Chewable tablet
Ticagrelor	90 mg	PO	Double daily
Eptifibatid	60 mg	IV	Double daily
Metoprolol	25 mg	PO	Twice daily

*Always consult the latest clinical guidelines for specific dosing and contraindications.