

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, tearing chest pain that radiates to his left arm and back. The pain is described as a constant, sharp pressure. He has a history of smoking 20 cigarettes per day for 30 years and has been on treatment with lisinopril and atorvastatin. His vital signs are stable, and his physical examination is unremarkable. An electrocardiogram (ECG) shows sinus tachycardia with ST-segment depression in leads V1-V4. A chest X-ray is normal. The patient's medical history is significant for a previous myocardial infarction 10 years ago and aortic aneurysm repair 5 years ago.

Based on the patient's symptoms and physical findings, the most likely diagnosis is aortic dissection. The tearing chest pain that radiates to the back and arm, along with the ST-segment depression on the ECG, are classic signs of this condition. The patient's history of hypertension and aortic aneurysm repair further supports this diagnosis. The absence of significant findings on the chest X-ray and the presence of sinus tachycardia are also consistent with aortic dissection.

Which of the following is the most appropriate initial management for this patient?

ANSWER

The most appropriate initial management for this patient is intravenous beta-blockade. The primary goal in the treatment of aortic dissection is to reduce the shear stress on the aortic wall by decreasing the heart rate and blood pressure. Beta-blockers are the first-line agents for this purpose. In this case, the patient's sinus tachycardia and the nature of his chest pain strongly suggest aortic dissection. Therefore, initiating intravenous beta-blockade is the most appropriate initial step in his management.

1. Aortic dissection

2. Myocardial infarction

3. Pulmonary embolism

4. Pericarditis

5. Aortic aneurysm

6. Myocarditis