

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 sharp, tearing pain that radiates to his back. He has a blood pressure of 180/110 mmHg, a heart rate of 100 bpm, and a respiratory rate of 20 breaths per minute. An electrocardiogram (ECG) shows sinus tachycardia with ST-segment depression in leads V1-V4. A chest X-ray is unremarkable. The patient is administered aspirin, morphine, and oxygen. A computed tomography (CT) scan of the chest reveals a large aortic dissection involving the ascending aorta. The patient is transferred to the cardiac catheterization laboratory for emergent aortic valve replacement and ascending aorta resection.

Question	Answer	Explanation
What is the most likely cause of the patient's chest pain?	Aortic dissection	The patient's symptoms, including sharp, tearing chest pain radiating to the back, and the CT scan findings are characteristic of aortic dissection.
What is the most appropriate initial management for this patient?	Control of blood pressure and pain	Initial management of aortic dissection involves rapid control of blood pressure and pain to reduce the risk of further dissection.
What is the most appropriate surgical approach for this patient?	Open surgical approach	Open surgical approach is the preferred method for aortic valve replacement and ascending aorta resection in this patient.

ANSWER: Aortic dissection

EXPLANATION: The patient's symptoms and CT scan findings are characteristic of aortic dissection.

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