

QUESTION
 A 65-year-old male with a long history of hypertension and hyperlipidemia presents to the emergency department with acute-onset chest pain and shortness of breath. He reports a tearing sensation in his chest that radiates to his back. His vital signs are: heart rate 102 bpm, blood pressure 180/110 mmHg, respiratory rate 22 breaths per minute, and oxygen saturation 92% on 2L oxygen. Physical examination reveals a new diastolic murmur at the aortic base and a small pleural effusion on the left side. An electrocardiogram shows sinus tachycardia.

ANSWER
 The patient's presentation is highly suggestive of aortic dissection. The key features include acute-onset tearing chest pain radiating to the back, a new diastolic murmur (likely aortic regurgitation), and a small pleural effusion. The patient's history of hypertension and hyperlipidemia are significant risk factors for this condition.

Aortic Dissection



The most common type of aortic dissection is the Stanford Type A, which involves the ascending aorta. The patient's symptoms and physical findings are consistent with this type. Immediate treatment is crucial to prevent further complications, including stroke, paraplegia, and death.

The next step in management is to stabilize the patient's blood pressure and heart rate. This is typically achieved using intravenous beta-blockers and vasodilators.