

## Chest pain? Again?

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A 46-year-old man presented to the ED after the sudden onset of chest pain 45 minutes earlier. He had been straining (installing a fan) when the pain began. He described the pain as a severe pressure that radiated to his left shoulder and arm. No radiation to the neck or back was noted. He denied shortness of breath, nausea, diaphoresis, syncope or palpitations. He had not previously experienced similar symptoms and felt well until the moment the pain began. Past medical history included poorly controlled hypertension for 15 years and

a 35 pack-year smoking history.

On examination, the patient was in moderate distress. Blood pressure was 105/74 mm Hg in both arms, heart rate was 106 beats/min and regular, respiratory rate was 24 breaths/min, and oxygen saturation was 98% on mask oxygen. Jugular venous pulse was 7 cm above the sternal angle, and a fourth heart sound was present, but there were no murmurs. Pedal pulses were not palpable, but all other peripheral pulses were symmetrical. Chest auscultation revealed bibasilar inspiratory crackles. The rest of the physical exam was normal.

An ECG was performed immediately (Fig. 1). A portable chest x-ray

showed early pulmonary edema. Initial creatine kinase (CK) level was normal. The patient was given ASA, morphine, heparin, IV nitroglycerin, and IV metoprolol. His pain improved but did not resolve. The most likely diagnosis is

- A aortic dissection
- B aortic dissection with extension into a coronary artery
- C esophageal perforation
- D myocardial infarction secondary to coronary thrombosis

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**For the Answer to this Challenge, see page 71.**

