



Atrial fibrillation: a rare presentation of cervical esophageal perforation/Boerhaave syndrome in the UAE

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Boerhaave syndrome is the spontaneous transmural rupture of the esophagus, typically following a sudden increase in intraesophageal pressure combined with a drop in intrathoracic pressure (e.g., retching). Although rare, it is considered a life-threatening emergency that requires prompt recognition and timely management.

A 50-year-old male smoker presented to the emergency department with palpitations and dizziness following a syncopal episode. The patient had been smoking a windpipe when he became lightheaded, experienced a syncopal event, and subsequently developed vomiting, palpitations, and neck pain. He had no significant past medical history. Review of systems was otherwise unremarkable.

On examination, the patient appeared anxious and tachypneic, with an irregular pulse. An electrocardiogram revealed atrial fibrillation with a rapid ventricular response, which spontaneously converted to normal sinus rhythm. The initial chest X-ray was unremarkable. Blood tests showed a borderline elevated troponin level and a carbon monoxide level of 20%. A cardiology evaluation deemed the patient at low risk for acute coronary syndrome.

Further evaluation revealed worsening neck pain and subtle subcutaneous emphysema in the anterior neck. A repeat review of the chest X-ray raised suspicion for air around the trachea. A contrast-enhanced computed tomography scan of the thorax revealed contrast leakage from the left esophageal wall at the level of the cricoid cartilage, consistent with cervical esophageal perforation and pneumomediastinum.

The patient was transferred to a cardiothoracic center, where he was managed conservatively and discharged safely after 4 days. Repeat imaging showed no further leakage.

Although life-threatening, esophageal rupture can be difficult to diagnose without a high index of suspicion. This case underscores the diagnostic challenges associated with esophageal perforation and emphasizes the importance of broad differential thinking in the emergency department as a means of minimizing the risk of cognitive and premature closure biases in a clinical setting.

Keywords:

Atrial fibrillation, esophageal perforation, Boerhaave syndrome.