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Deadly Tear: Early Recognition and Management of Boerhaave Syndrome

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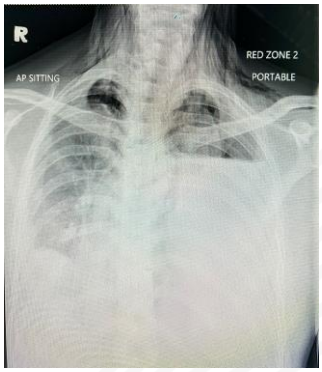
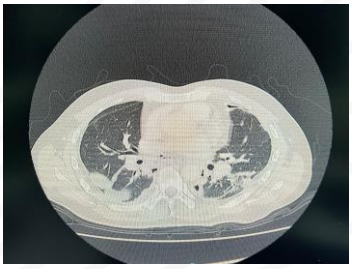
Introduction:

Boerhaave syndrome, is a spontaneous perforation of the esophagus that results from a sudden increase in intraesophageal pressure combined with negative intrathoracic pressure from severe straining or vomiting.

Case Description:

A 46-year-old gentleman with no known medical illness presented to the emergency department with a 3-day history of shortness of breath, vomiting, and epigastric pain, following alcohol intake. On arrival, he was alert (Glasgow Coma Scale 15) with SpO_2 83% on room air, tachycardic, and tachypneic. Physical exam revealed reduced bibasal air entry and subcutaneous crepitus at the neck. Chest X-ray showed left hydropneumothorax and right pleural effusion; a chest tube was inserted, draining pus. He developed respiratory failure requiring intubation and ICU admission. CT scan showed air pockets near the esophagus, and upper endoscopy confirmed a 3 cm esophageal perforation located 2 cm above the cardioesophageal junction. He was treated with antibiotics and bilateral chest drainage. The patient was admitted to the ICU for 5 days, then transferred to the surgical ward, and later discharged home well.





Discussion:

Esophageal perforation is a critical, life-threatening condition with high mortality due to leakage of gastric contents into the mediastinum, leading to mediastinitis, empyema, sepsis, and potential pneumothorax. Diagnosis is often delayed due to nonspecific symptoms like chest pain and dyspnea. While Mackler's triad (chest pain, vomiting, subcutaneous emphysema) is a classic sign, it lacks sensitivity and specificity. Risk factors include forceful vomiting, bulimia, and heavy lifting. CT scan is the diagnostic modality of choice, especially in unstable or uncooperative patients. Endoscopy may be used cautiously when both diagnosis and intervention are needed. Early management involves broad-spectrum IV antibiotics with anaerobic coverage, ICU admission, and early consultation with surgery, gastroenterology, and critical care teams. Chest tube placement may be needed for associated pneumothorax or effusion. Even patients who appear stable should be considered critically ill, as deterioration can be rapid. Prompt recognition and a multidisciplinary approach are key to improving outcomes in esophageal perforation.

Conclusion:

Always keep esophageal rupture in our differential diagnosis when evaluating chest, epigastric, or back pain—it's rare, but real, and can be rapidly fatal if missed.

References
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