When Chronic Medical Conditions Mask Acute Symptoms: A Case of Esophageal Perforation with Neck Pain

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Introduction

- Esophageal perforation is a rare and potentially life threatening condition, with mortality greater than 20%.
- Classic symptoms include chest pain, vomiting, and subcutaneous emphysema, known as the Mackler triad. However, patients can present with a variety of symptoms including neck pain, epigastric pain, hoarse voice, dysphagia, tachycardia, and dyspnea.
- Here, we present a patient whose symptoms were masked by his chronic medical conditions.

Case Description

- This is an 81 year old Caucasian male with a past medical history of cervical and upper thoracic spinal fusion secondary to advanced arthritis who presented to the emergency department after a low velocity motor vehicle collision (MCV).
- His only complaint at that time was neck pain, which he described as chronic, for which he takes daily opioid medication. He became frustrated and left the emergency department against medical advice after initial chest x-ray was obtained, which did not reveal acute findings.
- He represented to the emergency department after 48 hours, stating that he had run out of his opioid medications and is having continued neck pain. He described episodes of coughing while eating and drinking at home.
- Knowing that the patient was recently in an MCV, a CT chest without contrast was ordered, demonstrating extensive pneumomediastinum centered around a thick walled esophagus, raising concern for esophageal perforation [A, B].
- A gastrografin esophagram was then completed, which revealed visualization of extraluminal contrast.
- The patient was initiated on broad spectrum antibiotics with vancomycin and piperacillin-tazobactam. He then underwent thoracotomy with washout, decortication, and esophageal repair.

Figures

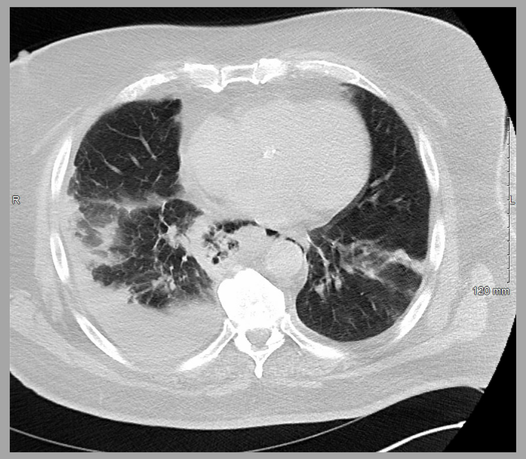

Figure A: Transverse slice of CT chest demonstrating esophageal perforation with right sided pleural effusion

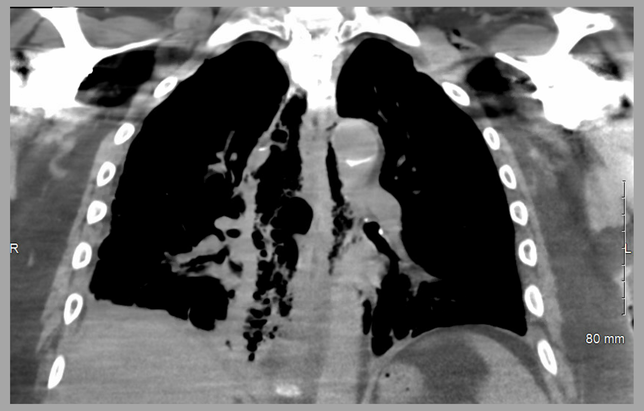

Figure B: Coronal slice of CT chest demonstrating esophageal perforation

Discussion

- While the overall mortality associated with esophageal perforation can approach 20%, delay in treatment of more than 24 hours after perforation can result in a doubling of mortality.
- While the majority of esophageal perforations are the result of iatrogenic injuries, one must consider this diagnosis in patients with foreign body ingestion, trauma, and previous esophageal pathology.
- Plain chest xray can aid in the diagnosis of esophageal perforation in 90% of patients, but can be normal if the image is obtained early in the disease process. Soft tissue and mediastinal emphysema require at least 1 hour to develop after perforation, whereas pleural effusions and mediastinal widening can take several hours to evolve.
- Contrast esophagram is the gold standard in diagnosis of esophageal perforation.
- Outcome is determined by the cause and location of the injury, the presence of concomitant esophageal disease, and the interval between perforation and initiation of therapy.
- Surgical repair is the most successful treatment option in the management of esophageal perforations and can reduce mortality by 50% to 70% compared to other interventional therapies.

Conclusion

This case demonstrates the importance of maintaining a high index of suspicion for esophageal perforation in patients involved in trauma, even in the absence of classical symptoms.

References

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