# Delayed Presentation of Boerhaave Syndrome after Renal Transplantation

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## Introduction

- Boerhaave syndrome is a rare, spontaneous esophageal perforation affecting 3.1 per 1 million people annually.
- Mortality rates: up to 25% when treatment initiated within 24 hours; up to 60% after 48 hours.
- Due to immunosuppression, transplant patients may have atypical presentations and are more susceptible to infectious complications.

## Case Description

- 68 year old male with history of ESRD, DM, HTN, underwent deceased donor renal transplant with induction immunosuppression of methylprednisolone and rabbit-antithymocyte globulin, maintenance immunosuppression of belatacept, mycophenolic acid 720 mg BID, prednisone 10 mg QD.
- Patient readmitted 36 days post-transplant for diarrhea and vomiting, and underwent empiric CMV treatment, GIPP, C. difficile assay.
- Hospital day 2, the patient developed back pain, hypotension, respiratory distress requiring intubation, with CT imaging shown in Figure 1.
- Broad antimicrobials initiated, and bilateral chest tubes placed.
- Initial EGD: complete esophageal rupture with severe thoracic contamination, suggesting perforation occurred days before respiratory decompensation.
- After resuscitation, the patient underwent video-assisted thoracoscopic washout with drainage of mediastinal collection as shown in Figure 2, and robot-assisted laparoscopic placement of venting gastrostomy and feeding jejunostomy tubes.
- 11 days later, EGD repeated with stent placement, shown in Figure 3.
- After a prolonged course, the patient succumbed to aspergillus pneumonia.

## FIGURES

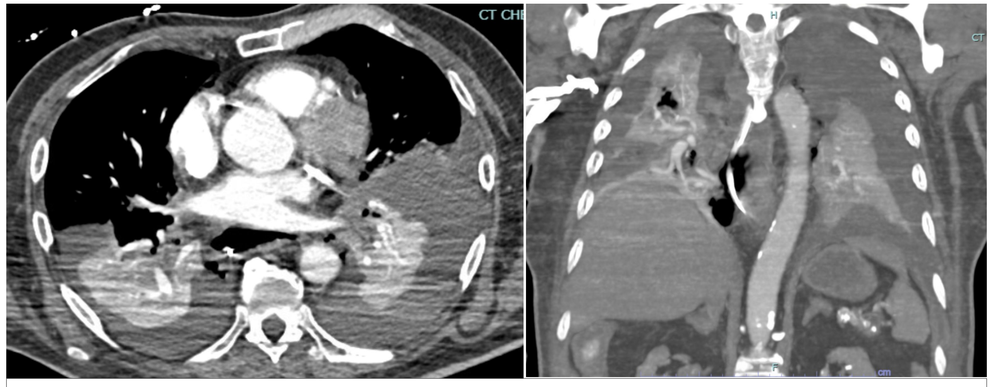

**Figure 1**: CT abdomen pelvis revealing esophageal perforation with large bilateral pleural effusions, pneumomediastinum, and a posterior mediastinal collection.

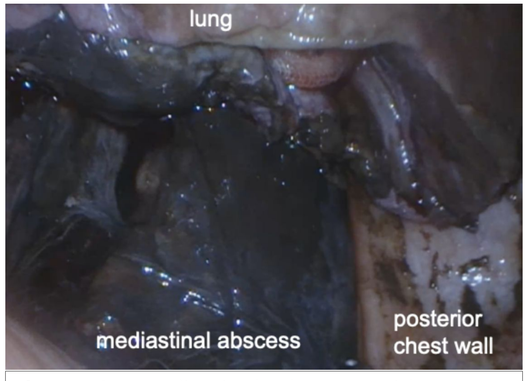


**Figure 2**: Mediastinal abscess with severe intrathoracic contamination seen during video-assisted thoracoscopic surgery.

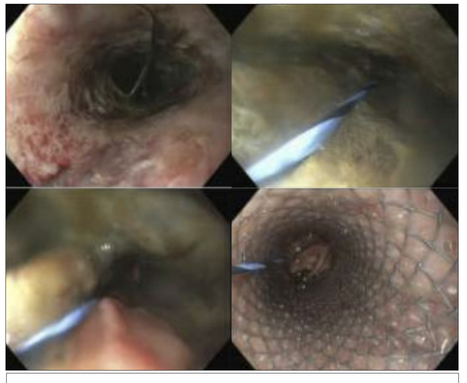

**Figure 3**: EGD findings of esophageal rupture with necrosis, with passage of wire across a large 30 cm defect, and esophageal stent placement.

## Discussion

- In transplant patients, the most common complication subset is infectious, followed by gastrointestinal.
- Immunosuppression can suppress and delay the presentation of classic disease symptoms.
- The classic Mackler triad (vomiting, lower thoracic pain, and subcutaneous emphysema) may be absent after esophageal perforation, with more nonspecific symptoms present, such as dysphagia, hoarseness, hematemesis, respiratory distress, or pain in abdomen, neck or chest.
- High dose corticosteroids, as those used in the early post-transplant period are associated with an increased risk of hollow viscus perforation.

## Conclusion

- Transplant patients often exhibit atypical presentations, therefore broad differential diagnoses must be considered.
- In patients with emesis followed by respiratory symptom development, heightened suspicion for Boerhaave syndrome is advised, especially if immunosuppressed.
- Early diagnosis and management of esophageal perforation is imperative to achieve favorable outcomes, and is most essential in transplant patients, given their susceptibility to infectious complications.

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