

## Introduction

- Esophagopleural fistula (EPF) is a unique complication of esophageal carcinoma
- We present a case of a 59-year-old male with poorly differentiated squamous cell esophageal carcinoma who developed recurrent pleural effusions, sepsis, and hypoglycemia secondary to an EPF.
- This case emphasizes the importance of a multidisciplinary approach in the management of EPF and the related complications.

## Case Presentation

- 59 year old male was found unresponsive with severe hypoglycemia (blood glucose less than 20)
- Significant medical history included poorly differentiated squamous cell carcinoma of the esophagus and insulin dependent type II diabetes mellitus.
- He had recurrent hospitalizations over a 6 month period due to complications of esophageal cancer.
- During a prior hospitalization, he was found to have a moderate to large located hydro pneumothorax with fistulous communication to the distal esophageal tumor on imaging.
- He was treated for sepsis and started on broad spectrum antibiotics.
- Interventional Pulmonology placed a right chest tube.
- During endoscopic evaluation, the fistula tract was confirmed and a fully covered esophageal stent was successfully placed.
- His clinical condition improved and he was discharged.
- A few weeks later, he presented due to hypoglycemia and signs of sepsis.
- New imaging revealed bilateral pleural effusions with the left side larger than right and evidence of loculation on the right.
- Bilateral pigtail catheters were placed and the pleural fluid from the right effusion revealed fluid with concerns for enteral feeds and eventually grew *Lactobacillus caseii*.
- Despite these interventions, persistent pleural fluid leakage necessitated the placement of a permanent PleurX catheter.

## Imaging



Figure 1: CT Angiography of the chest revealing moderate to large loculated hydropneumothorax with now fistulous communication to the diffuse irregular wall thickening of the distal esophagus constant with tumor invasion into the pleura

## Discussion

- EPF is a rare complication of esophageal carcinoma as it often results from tumor invasion into the pleura.
- EPF management can be challenging and may require a multimodal approach involving interventional endoscopy, interventional pulmonology, and thoracic surgery.
- In our case, initial attempts to manage the EPF with an esophageal stent were partially successful but ultimately insufficient to prevent recurrent pleural effusions and leakage.
- *Lactobacillus caseii* found in the pleural fluid is unusual and raises concern for the source of infection in the pleural cavity.
- It is reasonable to conclude that the enteral feeding could have refluxed through the fistula tract which then contributed to microbial colonization and subsequent infection and sepsis.
- The complexities in this case emphasize the importance of careful monitoring and a multidisciplinary approach to optimize patient outcomes in cases of EPF.

## Conclusion

- This case exemplifies the complex clinical course along with the challenges associated with the management of EPF.
- A multidisciplinary approach with early recognition and timely intervention are crucial in optimizing outcomes for patients with EPF
- This case reveals that further research is warranted to investigate optimal management strategies for patient who present with similar presentations.

## References

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