Seismic Pseudocyst Predicament: Pericardial Effusion, Bacteremia, and Fistula from Pancreatic Fluid Collection Requiring Therapeutic Lumen Apposing Metal Stent

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Introduction

Pancreatic fluid collections are common in recurrent pancreatitis that may persist and cause pseudocysts. As pseudocyst size increases, it can cause multisystemic inflammation. One approach for reducing the size is by using Lumen Apposing Metal Stent (LAMS) placement via EUS.[1,2] Here, we present an unusual case of a patient with pericardial effusion and esophagocystic fistula from a pseudocyst. LAMS implantation drastically resolved the patient's pericardial effusion from compression of the pseudocyst. The paraesophageal positioning of the pseudocyst possibly resulted in a small extraluminal channel at the esophagocystic junction causing bacteremia from gastroenteral translocation.

Case Presentation

A 52-year-old female with a past medical history of recurrent pancreatitis from alcohol use initially presented with epigastric pain and nausea. CT abdomen and pelvis showed pericardial effusion and severe esophageal inflammation with edema due to a multilocular pancreatic pseudocyst. The pseudocyst was 7.9 x 6 x 4.2cm coming from the pancreatic tail extending to the spleen, stomach, and mediastinal/paraesophageal region. Chemical necrosectomy and LAMS was done via EGD/EUS. Two weeks later, the patient had pleuritic chest pain and was diagnosed with a large pericardial effusion requiring pericardiocentesis. In time, the patient returned for LAMS removal and was found to have a 6mm esophagocystic fistula. Esophagram confirmed an active leak next to the esophagogastric junction, to the fundus of the stomach, and to the tail of the pancreas. Subsequently, blood cultures showed *Sphingobacterium spiritovorum* and *Sphingomonas paucimobilis*. Argon Plasma Coagulation via EGD was used in the margins of the fistula to promote healing and closure of the leak.

Figures

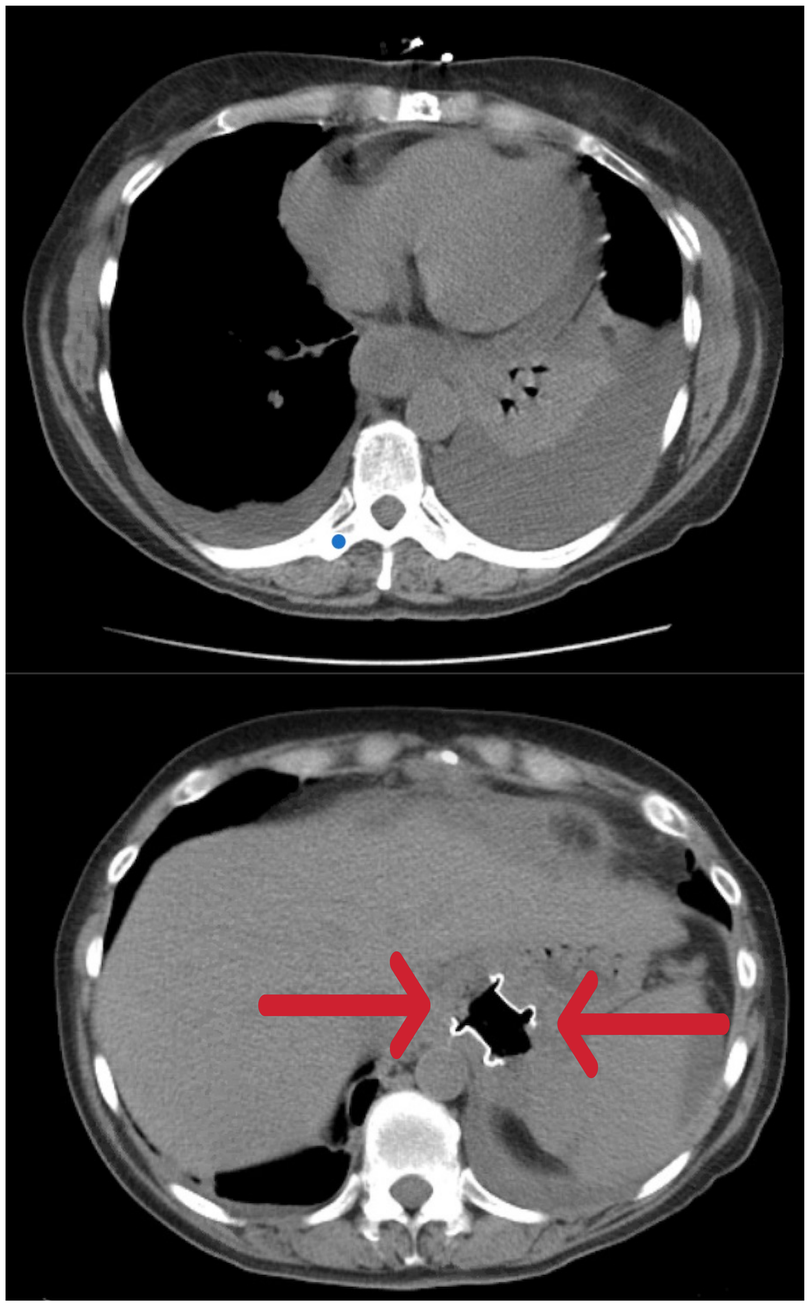

Figure 1: CT abdomen and pelvis showing interval changes after the placement of a lumen apposing metal stent (LAMS)

Discussion

This is a complex case of a necrotic pseudocyst causing periesophageal swelling and pericardial effusion that required therapeutic cyst necrosectomy and LAMS. The pericardial effusion was potentially reactive to the periesophageal swelling and edema. Although LAMS resolved the pseudocyst, the extensive nature and positioning of the pseudocyst with inflammatory changes resulted in several ramifications. Extensive necrotic pseudocyst can be life threatening, especially in this case given the patient's multi-system involvement, but further complications were potentially avoided with therapeutic LAMS intervention.

Conclusion

Therapeutic LAMS procedure along with the Argon Plasma Coagulation technique can be used to avoid further multisystem inflammatory response to a large compressing pancreatic pseudocyst.

References

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