

Introduction

- Biliary injuries, such as bile leaks and fistulas, although rare, carry an increased risk of morbidity and mortality for patients.
- There are variable methods on how to proceed when one occurs, including stent placement and sphincterotomy via ERCP or percutaneous drainage.
- If these methods don't succeed due to complexity or other factors, unconventional methods may be employed.

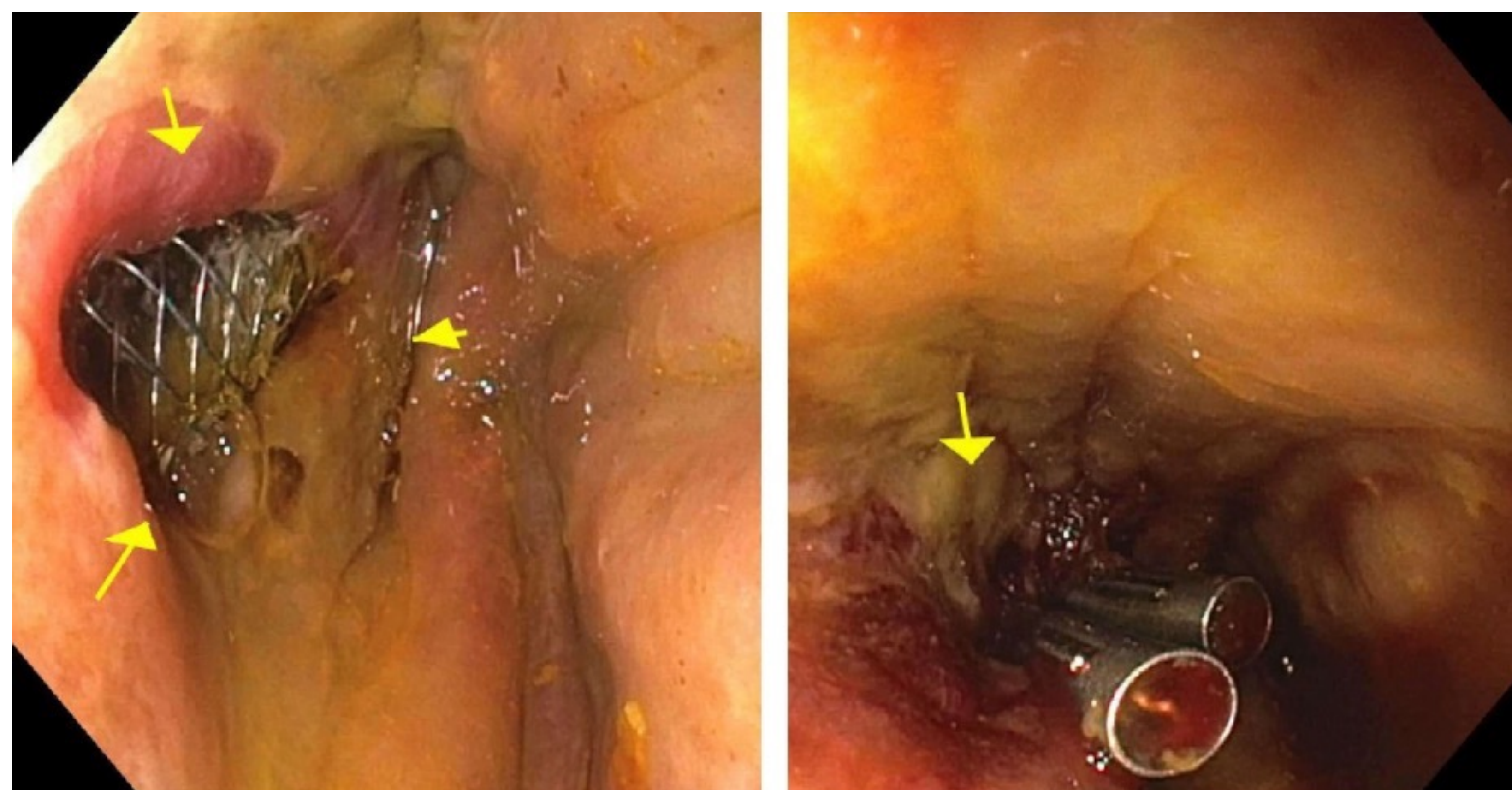


Figure 1: Endoscopic view of the 2cm bile duct wall defect via a percutaneous approach (Left) vs. the repaired defect with endoclips (Right)

Case Report

- A 36 y.o. male with asymptomatic cholelithiasis and choledocholithiasis underwent a laparoscopic cholecystectomy and ERCP with stone removal at an outside hospital. Patient continued to have smoldering abdominal pain after the procedure and EUS revealed a large peripancreatic necrotic collection with lipase >4000 and bilirubin of 14.5.
- ERCP showed a large caliber common hepatic duct leak and an 8mm x 8cm covered metal biliary stent was placed within the common bile duct, as well as an 18mm x 10cm covered esophageal stent in the right lower quadrant, across the cystostomy, for percutaneous endoscopic necrosectomy.
- HIDA scan showed a persistent active bile leak near the location of the peripancreatic fluid collection. Necrosectomy was performed with successful clearance of the cavity. A concomitant 2cm bile duct wall defect was noted with exposure of the metal biliary stent (Figure 1).
- A dual approach with two endoclips were used to approximate the wall defect and a fully covered metal stent was left in the common bile duct to seal the defect from the inside and direct bile into the duodenum (Figure 1).
- The location of the defect on the common bile duct, not the cystic duct remnant, as well as the lack of visualization of leak on initial ERCP support that this was a fistula between the common bile duct and the peripancreatic fluid collection.
- Repeat ERCP at 3 and 5 months showed no further contrast extravasation and no bile duct stricture, and the metal stent was removed at 5 months.

Discussion

- This case illustrates a novel approach that successfully treated a fistula between the bile duct and a pseudocyst with endoclips during a percutaneous necrosectomy.
- Although undocumented in the literature, complex refractory biliary injuries require unconventional methods at times.
- This case proved successful in a young but very complicated patient and should be explored.

References

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