

Rare case of recurrent liver abscess caused by Choledocodoudenal fistula in ampullary diverticulum



**Montaser Alrjoob, MD, **Ahmad Abu Ayyash, MD, **Hazem Al-Ashhab, MD,
*Rutgers Health/Monmouth Medical Center, Long branch, New Jersey
**Al-Ahli Hospital , Hebron, Palestine*



Introduction:

- Choledocodoudenal Fistula is a rare condition that may be caused by Choledocholithiasis, surgical or laparoscopic cholecystectomy, duodenal ulcer and tumor invasion.
- Choledocodoudenal fistula has no specific symptoms and may be accidentally discovered during upper GI endoscopy; but in some cases, it may lead to recurrent cholangitis and liver abscess.

Case presentation:

- **Age/Sex:** 68 year old male.
- **Medical history:** Hypertension, Type II DM, COPD and CAD.
- **Presentation:** he was referred from outside facility for evaluation of Liver abscess. He was admitted there for sepsis, required IV antibiotics. Blood culture grew E. Coli
- Upon admission he complained of abdominal pain, but denied any fever, chills, weight loss, loss of appetite or change in bowel habits.
- **Vitals:** He was afebrile, BP at 125/60mmhg, heart rate at 73, saturating 96% on room air.
- **Physical exam:** The patient has soft abdomen with mild RUQ tenderness with Hepatomegaly (3 fingers below the costal margin). The rest of the examination was unremarkable

Labs/Imaging:

- **Imaging:** Computed tomography of the abdomen showed Large heterogeneous mass occupying VIII, VII and V segments



ERCP:

- ERCP showed:-Ampulla in a large diverticulum. -Biliary fistula at the apex of diverticulum.-Good drainage for contrast through the fistula.



Management:

- Patient was started on IV Antibiotics and Pain Medications.
- As ERCP showed: Tiny Ampullary orifice in large diverticulum. The injection of the contrast revealed a fistula at the apex of diverticulum with good drainage through it, so Endoscopic sphincterotomy was not performed.
- Interventional radiology (IR) was consulted and CT-guided Drainage of the Liver abscess was done.

References:

- 1) Bile Duct Injuries and Fistulas; doi.org/10.1016/B0-12-386860-2/00067-8
- 2) Endoscopic sphincterotomy of the ampulla of Vater. Gastrointest Endosc. 1974;20(4):148–51.
- 3) Intrahepatic pyogenic abscesses: Treatment by percutaneous drainage. Amer J Surg. (1985); 149:487–494.

Discussion:

- Choledocodoudenal fistula is a rare complication of the cholelithiasis which occurs in between 0.3% and 0.4% of patients
- More than 90% of internal biliary fistulas occur as a result of cholelithiasis and acute or chronic cholecystitis.
- With more widespread use of laparoscopic cholecystectomy, the incidence of bile duct injury, including biliary fistulas, has increased (compared to the incidence associated with open cholecystectomy).
- Choledocodoudenal fistulas (CDF) are usually diagnosed incidentally on radiography (ERCP or MRCP
- The treatment of biliary fistula depends on the underlying cause. In case of the biliary stones sphincterotomy followed by balloon dilation has provided the best outcomes.
- The best modality to treat liver abscess is the combination of broad-spectrum antibiotics and percutaneous drainage.