Cholecystocolonic Fistula
Published on 14.12.2018

DOI: 10.1594/EURORAD/CASE.15940
ISSN: 1563-4086
Section: Abdominal imaging
Area of Interest: Abdomen Colon Gastrointestinal tract
Procedure: Diagnostic procedure
Imaging Technique: MR
Special Focus: Fistula Case Type: Clinical Cases
Authors: Afzal Khan Bangash, Yousef Wirenfeldt Nielsen
Patient: 62 years, female

Clinical History:
A patient with known Crohn’s disease presented with difficulties to pass stool, a sensation of a foreign body in the rectum and limited rectal bleeding. An endoscopy was performed as the first examination. A gallstone was found in the rectum and it was removed without complications.

Imaging Findings:
To assess any inflammatory changes, subsequent MRI was performed as small bowel follow-through with oral and intravenous contrast (Fig 1-2). The main imaging finding was a contracted gall bladder with a prominent cholecystocolonic fistula between the gallbladder and the hepatic flexure of the colon. No bile duct dilatation was present and no inflammatory changes related to Crohn’s disease were found.

Discussion:
Cholecystocolonic fistula (CCF) is the second most common cholecystoenteric fistula [1] accounting for 20% of gallbladder fistulas. The most common is the cholecystoduodenal fistula. CCF is an infrequent complication of chronic cholecystitis due to gallstones [1, 2]. However, it can also be caused by peptic ulcer, Crohn’s disease, malignancy or trauma [3]. It is reported to be most common in women, with the average patient age being 68.9 years [4].

Passage of a gallstone through a fistula from the gallbladder to the bowel may result in bowel obstruction if the stone is impacted in the bowel. This condition is known as gallstone ileus. The typical sites of gallstone impaction are the terminal ileum and ileocaecal valve. As CCF usually occurs at the hepatic flexure, gallstone ileus is uncommon [5]. Only rarely do gallstones impact the colon, usually occurring at the level of the sigmoid colon and most commonly due to pathological narrowing [6].

Patients with CCF are typically asymptomatic. When symptomatic, patients may present with a triad of symptoms: diarrhea, right hypocondrium pain and cholangitis. Furthermore, patients may have symptoms of bowel obstruction if a gallstone is impacted in the colon.

Preoperative diagnosis of CCF is difficult and achieved in only 7, 9% of patients [1]. Diagnostic modalities include ERCP, ultrasound and contrast-enhanced CT and –MR [3]. MRI findings are a fistula communicating between the gall bladder and adjacent colon, usually the hepatic flexure as seen in the present case. A contracted gallbladder can also be seen, possibly containing stones, as well as pneumobilia [3].

Uncomplicated CCF can be treated with resection of the colon and gallbladder and closure of the fistula [1].
Cholecystoenteric fistulas have also been observed to close spontaneously unless there is occurrence of persistent cholelithiasis [7], in such cases conservative management may be considered [1]. In complicated cases, treatment should be decided on a case by case basis, and no surgical treatment is an option in the case of pronounced adherences and inflammation without obstruction [1]. This was the chosen treatment in the current case.

In conclusion, this case presents the characteristic findings of a cholecystoenteric fistula, an uncommon complication of chronic cholecystitis.

Written informed patient consent for publication has been obtained.

**Differential Diagnosis List:** Cholecystocolonic fistula, Gallbladder carcinoma, Colon cancer with fistula

**Final Diagnosis:** Cholecystocolonic fistula

**References:**


Description: A fistulous tract is seen between the gallbladder and hepatic flexure of the colon (arrow).

Origin: Nielsen YW, Department of Radiology, University Hospital Herlev-Gentofte, Copenhagen, Denmark
Description: The fistulous tract is clearly seen between the gallbladder and colon (arrow). Origin: Nielsen YW, Department of Radiology, Copenhagen University Hospital Herlev. Denmark.