Valley International Journals
Open Access Journal
VIJ
New Thinking New Innovation

International journal of medical science and clinical Invention
Volume 1 issue 5 2014 page no.242-244 ISSN: 2348-991X

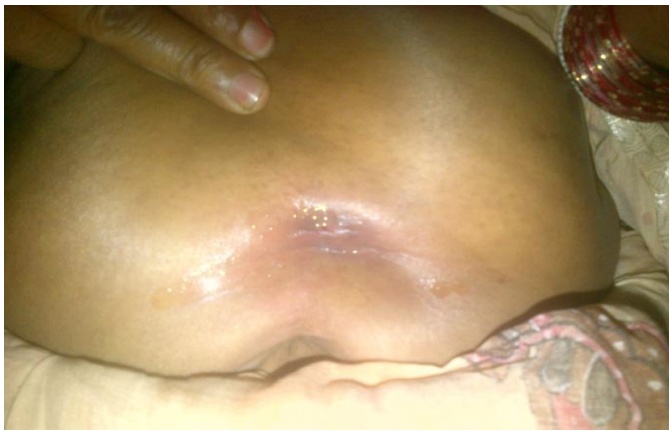
"Cholecystocutaneous Fistula-A Rare Presentation"

Shinde R[1], Chatterjee A[2] , Chattopadhyay B[3]

* PGT,Dept. of General Surgery, IPGME&R & SSKM HOSPITAL, Kolkata, WB
** PGT,Dept. of General Surgery, IPGME&R & SSKM HOSPITAL, Kolkata, WB
***Professor, Dept. Of General Surgery, IPGMER & SSKM HOSPITAL,Kolkata, WB

Abstract: ***Spontaneous cholecystocutaneous fistula, one of the rarest complications of acute cholecystitis, has been reported in fewer than 25 cases over the past 50 years. Not only is this case rare but interestingly the patient experienced no pain or symptoms consistent with gallbladder pathology leading up to her hospitalisation. Furthermore, laboratory studies, microbiology and computed tomography scanning did not establish a diagnosis until the fistula passed calculi.***

Introduction: Reports of spontaneous cholecystocutaneous fistulae have been found in medical literature dating back to the 17th century. Fortunately, spontaneous cholecystocutaneous fistulae are a rare complication of cholelithiasis nowadays as prompt medical and surgical treatments address the underlying pathology when symptomatic. Diagnosis of this rare entity often proves challenging as a significant proportion of patients with this complication present with non-specific symptoms.



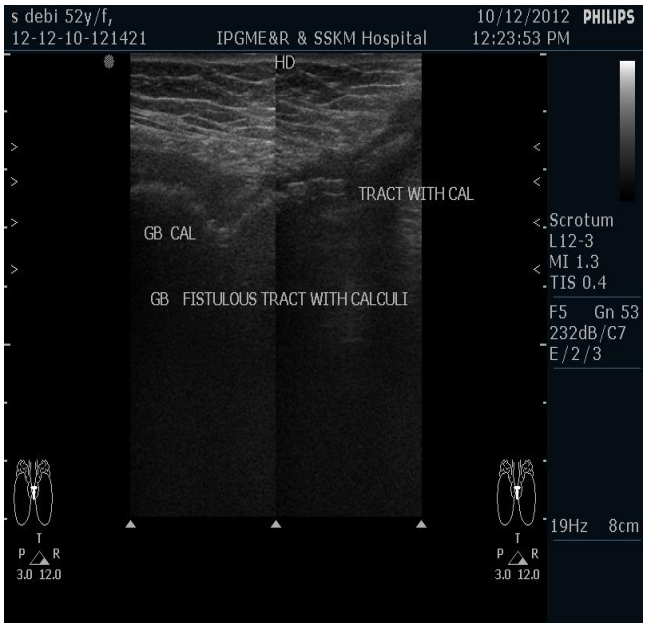
Case Report

A 45 yr old female , G6 P6 L6 , presenting with pain in abdomen in the right hypochondriac region and a spontaneously discharging opening 2 cm above the umbilicus .

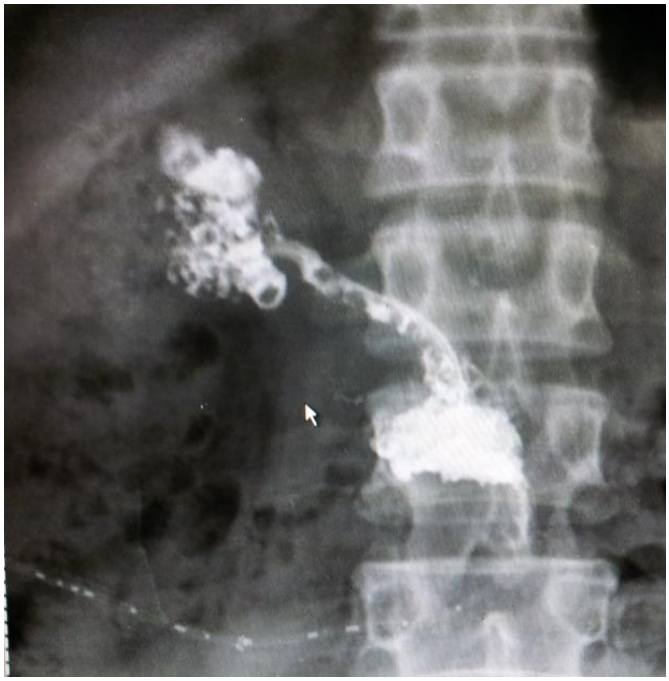
History of acute onset of abdominal pain in the right hypochondrium and fever one year back for which treatment was taken. After a period of 8 months patient noticed a painless swelling around 2 cm above the umbilicus (midline) which spontaneously ruptured after a week and followed by a sticky whitish discharge. After a period of 4-5 days, the patient noticed discharge of multiple, small , multi-faceted brown coloured stones from the opening. Intermittently there was spontaneous expulsion of similar stones from the opening and that is when the patient presented to the surgical outdoor-patient department. Her laboratory reports at the time of admission were as follows – haemoglobin 11 mg/dl ; total leucocyte count – 7,300 ;platelet count-2,30,000 sodium – 142 meq/l, potassium – 3.9 meq/l; bilirubin (total) – 0.6 mg/dl ; alkaline phosphatase – 67 IU/l ;

urea – 17 mg/dl ,creatinine – 0.7 mg/dl.

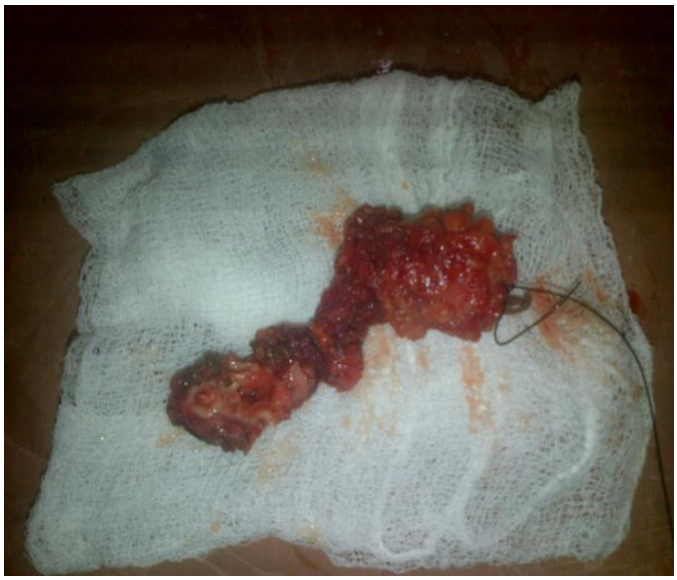
Further investigations- USG- contracted GB with multiple calculi with a tract communicating with the skin anteriorly; packed with calculus.



Fistulogram – (USG guided insertion of a fine bore catheter from the fistulous opening) – dye going to the gall bladder with tract packed with calculi



Operative specimen



Treatment – cholecystectomy with excision of fistulous tract : Specimen showing gall bladder with cutaneous opening marked with thread

Discussion

Biliary fistulas can be either internal or external. Internal fistulas are very much commoner, 75% of them connecting to the duodenum and 15% to the colon. The remaining 10% of internal fistulas connect with the stomach or jejunum, or have multiple communications such as cholecystoduodenocolic fistula(5). External biliary fistulas are rare. They usually complicate gallstone disease, but can occur secondary to biliary injury during a surgical procedure(4), cholangiocarcinoma (6) and other traumatic causes (7). The external opening of a cholecystocutaneous fistula is generally in the right hypochondrium. However, other sites can be involved such as the left hypochondrium (45%), the umbilicus (27%), the right lumbar region, the right iliac fossa 1 and the gluteal region (8).

Biliary outflow obstruction increases intramural pressure, restricts gallbladder perfusion and precipitates necrosis and perforation of the gallbladder. Once perforated, it may drain into the peritoneal cavity, adjacent viscera or less commonly adhere to the abdominal wall to form an external fistula. Most frequently, external biliary fistulae drain via a sinus in the right upper quadrant, however alternative locations such as

the umbilicus, right groin, anterior chest wall and the gluteal region have also been reported (11).

A fistula such as this one is an end result of perforation of the gallbladder secondary to acute calculous cholecystitis. Perforation of the gallbladder can also occur, albeit rarely, in the absence of gallstones(2). Two cases of combined internal and external fistulas have been described, communicating in each case with the duodenum (9)'

The typical presentation of a persistent discharging sinus should suggest the diagnosis, particularly in an elderly patient with a previous history of gallstones or jaundice (2). Our patient was known to have hepatitis C but not gallstones. The radiological evidence was equivocal at the initial presentation. It was only at re-admission that the repeat investigations confirmed the diagnosis.

The management of an external biliary fistula clearly depends on the underlying aetiology. The acute phase requires treatment with adequate antibiotics, analgesia and resuscitation. In a proportion of patients the external biliary fistula will heal spontaneously, and therefore operation may be avoided if the patient is elderly or debilitated. Possible surgical options include cholecystostomy with removal of the gallstones or cholecystectomy. As cholecystostomy carries the possibility of further stone formation in the gallbladder, cholecystectomy is usually the treatment of choice.

References

1. Gibson TC, Howat JMT. Cholecystocutaneous fistula. Br J Clin Pract. 1987;41:980– 2

2. Birch BRP, Cox SJ. Spontaneous external biliary fistula uncomplicated by gallstones. Postgrad Med J.1991;67:391–2.

3. Andley M, Biswas RS, Ashok S, Somshekar G, Gulati SM. Spontaneous cholecystocutaneous fistula secondary to calcu lous cholecystitis. Am J Gastroenterol. 1996;91:1656–7.

4. Czerniak A, Blumgart LH. Czerniak A, Blumgart LH. Churchill Livingstone; Edinburgh: 1994. External biliary fistula, Surgery of the Liver and Biliary Tract, vol 1.

5. Morissey KP, McSherry CK. Czerniak A, Blumgart LH. Churchill Livingstone; Edinburgh: 1994. Internal biliary fistula and gallstone ileus, Surgery of the Liver and Biliary Tract, vol 1.

6. Kuo YC. Spontaneous cutaneous biliary fistula: a rare complication of cholangiocarcinoma. J Clin Gastroenterol. 1990;12:451–3.

7. Smith EEJ, Bowley N, Allison DJ, Blumgart LH. The management of post-traumatic intrahepatic cutaneous biliary fistulas. Br J Surg. 1982;69:317–18

8. Nicholson T, Born MW, Garber E. Spontaneous cholecysto cutaneous fistula presenting in the gluteal region. J Clin Gastroenterol. 1999;28:276–7.

9. Reed MWR, Tweedie JH. Spontaneous simultaneous internal and external biliary fistulae. Br J Surg.1985;72:538.

10. Davies MG, Tadros E, Gaine S, McEntee GP, Gorey TF, Hennesssy TPJ. Combined internal and external biliary fistulae treated by percutaneous cholecystolithotomy. Br J Surg. 1989;76:1258.

11. Malik AH, Nadeem M, Ockrim J. Complete laparoscopic management of cholecystocutaneous fistula. Ulster Med J. 2007;76:166–167