GALL STONE ILEUS –64 SLICE MDCT FEATURES OF AN UNUSUALL CASE

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ABSTRACT

We report a rare case of Gall stone ileus with patient presenting with symptoms and signs of small bowel obstructions. A CT scan performed in emergency revealed features of gall stone ileus. Patient underwent laparotomy and removal of obstructing gall stone from ileal loop.

Case Report

A 63 years-old female, presented with vomiting and pain in the right hypochondrium for 3 days. The patient had a history of cholilithiasis. His serum lipase was 39 U/L and serum amylase was 58 U/L. A CT scan was performed in emergency on a 64-slice multidetector CT (MDCT) which revealed air filled gall bladder and a fistulous tract communicating with duodenum (Fig.1). Air was also seen in the intrahepatic biliary tree. Duodenal, jejunal and proximal ileal loops were dilated (Fig.1). Maximum diameter of distended bowel loop was 4 cm. A calculus was identified at the point of transition between dilated and normal calibre small bowel loops (Fig. 2 & 3).

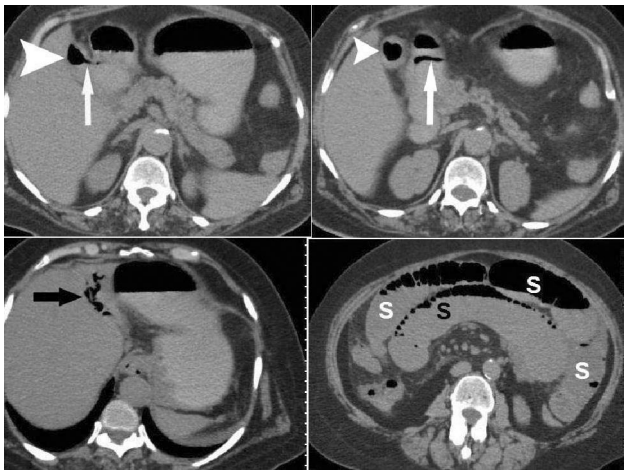

Figure 1: Gall stone ileus. White arrowhead=Air filled gall bladder, White arrow = Fistulous tract in between gall bladder and duodenum. Black arrow = pneumobilia, S= Dilated small bowel loops

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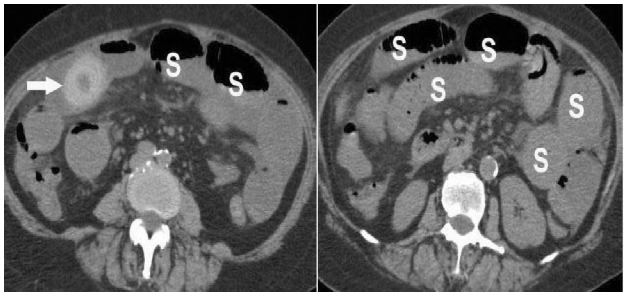

Figure 2: Gall stone ileus. White arrow= Laminated gall stone impacted in the ileum S=Dilated proximal small bowel loops

A calculus was seen impacting in the ileal loop. The calculus measured 3 x 4cm and had striated appearance. The centre of the calculus demonstrated fat density. The ileal luminal diameter proximal to the obstructing calculus was 32.08 mm. It measured 20.21 mm distal to the calculus. Free mesenteric fluid was seen around the bowel loop at the point of obstruction. There was also free fluid seen in the pelvic cavity. Uterus was surrounded by free fluid. Normal appearance of the small bowel mesentery and omentum was seen .No biloma formation was seen around the air filled gall bladder. There was no abdominal or pelvic llymphadenopathy and no gut related mass was seen. Normal calibre appendix was visualized in the right iliac location without appendicolith or periappendiceal fat stranding. Exploratory laparotomy was performed. The stone was removed form the ileum and obstruction was relieved. Patient was discharged on 3rd post operative day.

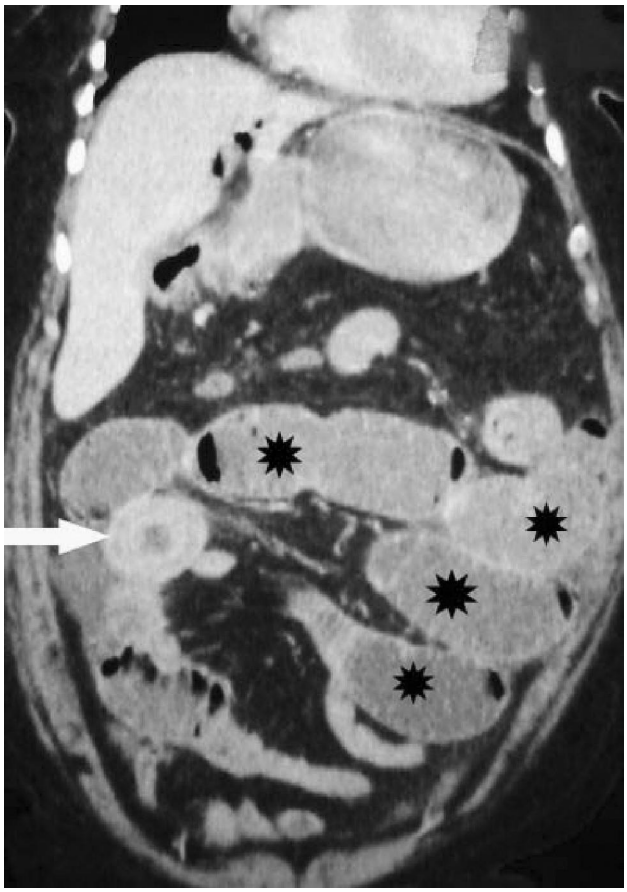

Figure 3: Coronal reformatted image shows gall stone (white arrowhead), asterisks =dilated small bowel loops

Discussion

Gallstone ileus is a complication in 0.3–0.5% of all cases of cholelithiasis; the ratio of women to men affected ranges from 3:1 to 16:1. A recently acute biliary episode frequently precedes the onset of gallstone ileus. MDCT may improve the diagnosis of gallstone ileus, providing important information regarding the exact number, size, and location of ectopic stones and the site of intestinal obstruction or direct visualization of a biliary–enteric fistula, to help clinicians in the therapeutic management of patients.[1] Not all cases of gallstone ileus present with classical symptoms of small bowel obstruction, and often symptoms are non-specific, therefore a strong index of suspicion is essential for making the right diagnosis. However, abdominal pain, vomiting and abdominal distension remain common complaints. Occasionally, patients present with signs and symptoms of intestinal obstruction which settle, only to recur days or weeks later, the so called "tumbling phenomenon" whereby the obstructing stone dislodges and continues on its migration distally only to lodge again. Therefore, once a diagnosis of gallstone ileus is made, operation should not be delayed.[2]

In 85% of patients with biliary–enteric fistula, the fistula communicates with the duodenum and the stones will pass spontaneously without causing bowel obstruction, whereas in 15% of patients, the clinical features of bowel obstruction develop as was seen in our case. In descending order of frequency, the gallstone can be lodged in the terminal ileum, proximal ileum, distal jejunum, colon, and duodenum or stomach.[3] Rarely gallstone may be impacted at the duodeno-jejunal flexure.[4] Gallstone ileus is an uncommon cause of small bowel obstruction. When the gallstone lodges inside the duodenum and causes gastric outlet obstruction, it is termed Bouveret's syndrome.[5]

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