

Case report: Rare case of self resolving Gall stone ileus

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Abstract: A gall stone ileus has variable presentations with symptoms presenting 4-8 days prior to obstruction, starting from migration of gall stone to impaction, usually near the ileocecal valve. The discussed case of a 45-year old lady presented with complaints of pain abdomen, vomiting and inability to pass stools in the medicine emergency since 2 days without any prior symptoms of cholecystopathy. An abdominal ultrasound was done and was reported as chronic cholecystitis with cholelithiasis and bilateral medico-renal disease, right more than left. She underwent contrast enhanced CT abdomen, which revealed pneumobilia with a choleduodenofistula and presence of calculi in the jejunum. She underwent exploratory laparotomy with findings of chronic cholecystitis with gal bladder perforation (old), and perforation in the second part of the duodenum leading to fistula formation. Cholecystectomy was performed with primary repair of fistula. Post operatively, the patient passed a calculus of size 5cm x 4 cm. per rectally. The patient underwent abdominal ultrasonography and X ray AP erect for abdomen, which were reported to have normal findings.

The reported case showed symptoms starting 2 days prior to obstruction with none suggestive of migration of the calculi.

Roentgenograms are indicative of Rigler's triad of mechanical obstruction, air in bile tree or radio-opaque stone.

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I. Introduction:

Gall stone ileus is a rare form of small bowel obstruction caused by impaction of a gall stone within the lumen, and was first described by Bartolin in 1654. It is a mechanical obstruction with the calculi originating in the gall bladder, which passes through a cholecystenteric fistula and gets impacted in the lumen with an incidence of 1-4% of intestinal obstruction.^(1,2,3)

Incidence is significant in patients in age group of 7th decade and higher with majority affecting females.^(4,5,6) The patients may have associated comorbidities, which affect the management^(8,9).

Biliary enteric fistulas have many causes, one of them being duodenal ulcer perforation into the bile ducts and another being cholecystenteric fistulas due to repeated episodes of inflammation in the gall bladder⁽¹⁰⁾. Majority of the patients have no prior symptoms related to the biliary system, with only 33% reporting prior episodes.^(2,5,7,10)

The gall stone, once preset in the intestine, having passed the fistula may be eliminated in the vomitus or faeces and rarely cause obstruction (Bouveretsyndrome)

Gall stone ileus presents as an abdominal pain, colicky in nature, associated with bilious vomiting and rarely jaundice. In severe cases of obstruction, the vomitus may contain faecal matter.

Laboratory and radiological investigations play a major role in diagnosis with the observation of double air fluid in cases of pneumobilia.

II. Case Report:

A 45- year old married female presented with complaints of pain abdomen, vomiting and inability to pass stools in the medicine emergency since 2 days without any prior symptoms of cholecystopathy. An abdominal ultrasound was done and was reported as chronic cholecystitis with cholelithiasis and bilateral medico-renal disease, right more than left.

The patient complained about worsening of pain with distention of abdomen and inability to pass flatus or stools.

After biochemical investigations and symptomatic improvement, the patient underwent contrast enhanced CT abdomen, which revealed pneumobilia with a choleduodenofistula and presence of calculi in the jejunum.

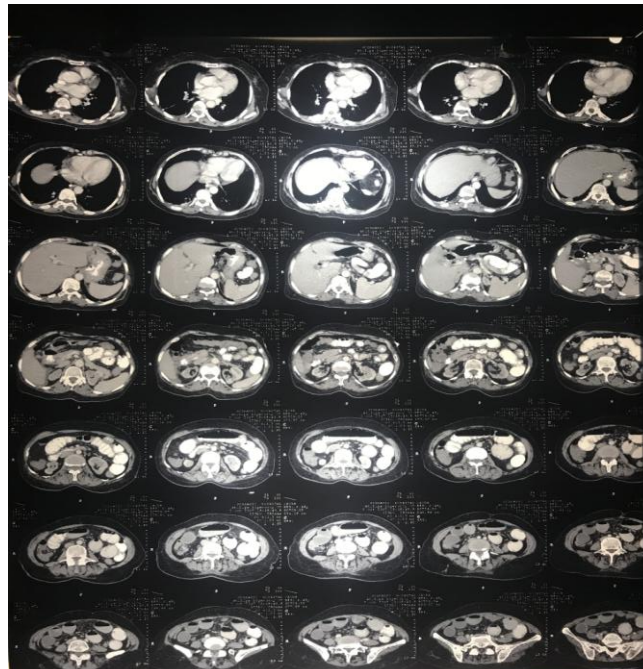
The patient was transferred to the surgery department for further management and on day 5 of admission, she underwent exploratory laparotomy with a midline vertical incision approach. The intra operative findings were suggestive of chronic cholecystitis with gal bladder perforation (old), and perforation in the second part of the duodenum leading to fistula formation. Cholecystectomy was performed with primary repair

of fistula. On table examination of bowel loops was done for calculi, however, none could be palpated. Post surgery, the patient was recovering well with symptomatic improvement and improvement in biochemical markers and passage of flatus and return of bowel sounds. The patient underwent anal dilation and administration of soap water enema. On POD5, the patient passed a calculus of size 5cm x 4 cm. The patient underwent abdominal ultrasonography and X ray AP erect for abdomen, which were reported to have normal findings.

The patient was discharged on POD10 with normal vitals and no fresh complaints. In her follow up visits, the patient was found to have been living a symptom free life and a healthy suture line, for which suture removal was done.



Gall bladder calculus passed per rectally



CECT abdomen with fistula formation



Abdomen erect Xray: small bowel obstruction

III. Discussion:

A gall stone ileus has variable presentations with symptoms presenting 4-8 days prior to obstruction, starting from migration of gall stone to impaction, usually near the ileocecal valve.^(1,2,6,7) The reported case showed symptoms starting 2 days prior to obstruction with none suggestive of migration of the calculi.

Thorough investigation is advised with clinical findings being confirmed by roentgenograms, ultrasonography, CT and endoscopy. Roentgenograms are indicative of Rigler's triad of mechanical obstruction, air in bile tree or radio-opaque stone.^(2,11,12) Ultrasonography may report cholecystenteric fistulas, residual cholelithiasis and impacted gall stones^(1,10,11)

CECT is recommended as gall stone may only be detected by this in cases of impaction as was seen in our case. The most common fistulas are cholecystoduodenal, cholecystocolonic, cholecystoduodenocolonic and choledochoduodenal. Usually single calculus is present^(2,15), but multiple may be present and impacted in different levels of intestine, hence, detailed investigation is recommended^(8,12,15,16)

The treatment modality is preferably a laparotomy as the more common obstruction site is the sigmoid colon.^(13,14)

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