

CASE REPORT

Gall Stone Ileus - An Uncommon Cause of Intestinal Obstruction

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Abstract

Gallstone ileus is a rare disease and accounts for 1% to 4% of all cases of mechanical intestinal obstruction. It usually occurs in the elderly with a female predominance and may result in a high mortality rate. Its diagnosis is difficult and early diagnosis could reduce the mortality. Surgery remains the mainstay of treatment. We present here a case of 42 years old female presenting with small intestinal obstruction owing to a large gallstone in distal jejunum and its successful management.

Key Words

Pneumobilia, Gall Stone Ileus, Intestinal Obstruction, Enterolithotomy

Introduction

Gallstone ileus is a rare disease and accounts for 1% to 4% of all cases of mechanical intestinal obstruction. It usually occurs in the elderly with a female predominance and may result in a high mortality rate. Its diagnosis is difficult and early diagnosis could reduce the mortality. Surgery remains the mainstay of treatment (1-3).

Case Report

48 year old female presented to us with chief complaints of pain in abdomen and distention of abdomen with vomiting since last 3 days . She had history of tubectomy 12 years back. She had no medical history suggestive of major illness or abdominal trauma and she was not on any medications. On general physical examination, patient was conscious, oriented; vital signs were normal with pulse rate of 100 beat per minute and a blood pressure of 120/70 mm of Hg. Abdominal examination revealed distended abdomen with mild tenderness . However nopalpable mass was there and hernial sites were normal . Laboratory examinations were within normal limit. Plain abdominal film suggested small bowel obstruction clinically attributed to adhesions. Later on gallstone ileus was diagnosed by abdominal computed tomography (CT) based on the presence of pneumobilia with air in C.B.D and Gall Bladder, Cholecysto-duodenal fistula and bowel obstruction due to impacted ectopic stone in the distal jejunum (*Fig1*). She underwent emergent laparotomy with enterotomy and removal of

the stone (enterolithotomy) (*Fig 2*) . Postoperative course of patient in the hospital was uneventful . She was discharged in a satisfactory condition and is on regular follow up with us in the Out Patient Department .

Discussion

The cause of mechanical small bowel intestinal obstruction includes gallstone, foreign bodies, bezoars, tumors, adhesions, congenital abnormality, intussusceptions and volvulus (1). Among the causes, a gall stone induced intestinal obstruction also referred to as a gallstone ileus is a rare and potentially serious complication of cholelithiasis (2). It occurs mostly in the elderly, and accounts for 25% of mechanical small-bowel obstruction in patient over the age of 65, with a mortality rate of 12-50% (3). This pathology occurs more frequently in females than in males in the ratio of 3-5:1 . The gall stone enters the intestinal tract through the fistula formed between the gall bladder and the duodenum, stomach or colon. In particular, a cholecystoduodenal fistula was identified in 68% of patient with gallstone ileus (4). The terminal ileum is the most frequent site of obstruction (5). However other causes of obstruction including duodenum, jejunum and colon may be seen. The clinical symptoms of gallstone ileus are non-specific and usually depends on the site of obstruction . It is primarily a disease of elderly women. Diagnosis depends on a high index of suspicion and should be considered in elderly patients, especially females, who

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Fig 1: Showing CT Scan Abdomen Showing Gall Stone Ileus

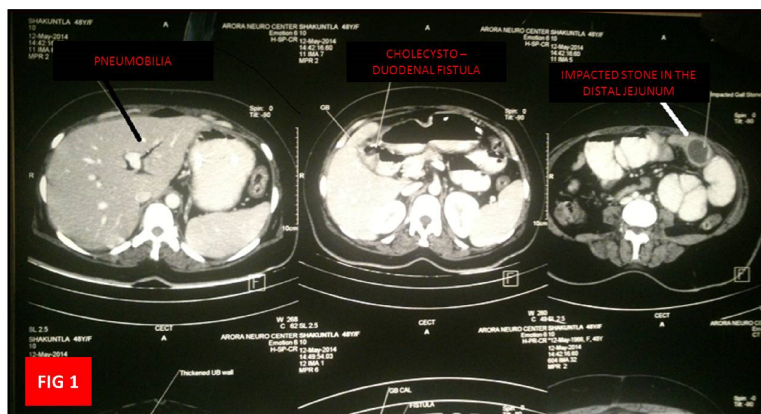


Fig 2. Showing Enterotomy and Gall Stone Removal



present with small bowel obstruction, history of previous cholelithiasis and absence of abdominal scars or external hernia. Computed tomography is the investigation of choice. The principal objective in the management of gallstone ileus is a quick effective relief from mechanical bowel obstruction. Surgical options include enterotomy and removal of the stone (enterolithotomy), enterolithotomy plus cholecystectomy and repair of the fistula. Bowel resection is only indicated when there is intestinal perforation or ischemia (6). There is no uniform surgical procedure for this disease because of its low incidence. Although enterolithotomy alone remains the popular operative method in most reports, the one stage procedure composed of enterolithotomy, cholecystectomy and repair of fistula is necessary if indicated (7). Most authors prefer enterolithotomy alone, followed by cholecystectomy at a later date, because of its lower morbidity and report high spontaneous fistula closure up to 50% (8).

Conclusion

To conclude, Although it's a rare cause of bowel obstruction, the diagnosis of gallstone ileus should be kept in mind when dealing with a case of small bowel obstruction, especially in elderly females in whom the diagnosis is easily ignored. Abdominal CT is the preferred modality because of its rapid diagnosis of gallstone ileus.

Early surgical intervention is the key factor for treatment. Surgical treatment involves removal of the stone through small enterotomy with or without simultaneous cholecystectomy and repair of the fistula. Since the migration of multiple gallstones is possible, inspection of all intestinal segments during surgery is recommended.

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