

CASE REPORTS

GALLSTONE ILEUS: A RARE COMPLICATION OF GALLSTONES, AND CAUSE OF INTESTINAL OBSTRUCTION

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INTRODUCTION

The spectrum of causes of intestinal obstruction has changed with time. Although adhesive intestinal obstruction is emerging as most important cause of intestinal obstruction, rare conditions continue to occur sporadically leading to intestinal obstruction. Gall stone ileus is particularly rare complication of gallstones causing intestinal obstruction. It is even rare to have gallstone ileus in two sisters. Usually a fistula is formed between gall bladder and duodenum and gall stone slips to block terminal ileum. Here we present a rare case of gall stone ileus, resulting in intestinal obstruction in an elderly woman. Her sister also had gall stone ileus 25 years ago.

CASE REPORT

A 70 year old woman was admitted in surgical intensive care unit of Combined Military Hospital Peshawar with history of pain upper abdomen especially on the right side of five days duration. It was of gradual onset, colicky in nature and of moderate intensity. It was associated with abdominal distention and recurrent vomiting. Vomiting initially contained bile stained fluid. Patient was passing flatus. There was no history of jaundice or fever. Past medical history included cholelithiasis for last ten years causing occasionally colicky right hypochondrial pain with vomiting. There was no history of hypertension or diabetes mellitus. On examination she was weakly built, dehydrated, afebrile and normotensive. Examination of the abdomen revealed moderate generalized abdominal distention. It was soft. There was mild tenderness in upper abdomen. Bowel sounds were present. A diagnosis of incomplete intestinal obstruction was made. Patient was made nil per oral, naso gastric tube was passed. Intravenous fluids, and Cephalexin one gram twice daily was started. Initial investigation showed total leukocyte count of

16000/cmm with 70% neutrophilia. Liver function test and serum amylase were normal. Serum urea was 7.2 mmol/l. Plain radiography of the abdomen revealed gas filled small bowel loops but no air in the biliary area. Ultrasound abdomen showed gall stones with no ultrasound evidence of acute cholecystitis. Common bile duct was of normal caliber. Patient's condition did not improve on conservative treatment. Oral contrast study was done which revealed failure of passage of contrast beyond terminal ileum. Exploratory laparotomy was done. Abdomen was opened through midline incision. Dilated loops of distal jejunum and proximal ileum were found with collapsed distal ileum. A stony hard mass was felt at the cut off point. Dense adhesions were found between gall bladder and duodenum. Enterotomy revealed one large gall stone of 5 x 7 cm and three small gall stones of about 3 x 4 cm size. (Fig. 1). Gall stones causing intestinal obstruction were removed through enterotomy and small intestine was deflated. Fistulous communication between gall bladder and duodenum was left undisturbed. Patient made an uneventful recovery. Interestingly later on, patient volunteered history of gall stone ileus in one of her elder sisters 25 years ago.

DISCUSSION

Gall stone ileus is a rare cause of mechanical intestinal obstruction caused by impaction of gall stone in the bowel lumen [1]. It is considered as geriatric surgical emergency with incidence of 1 – 4% [2]. We encountered only one case, out of 83 cases of intestinal obstruction, during a period of 3 years, due to gall stone ileus. The disease occurs more commonly in elderly women than in man, as in our case, in a ratio of 4 – 8:1 [2].

There are no recorded cases of gall stone ileus in two sisters of same family. Our case was rare. It could be a coincidence. Following acute cholecystitis and adhesion formation between gall bladder and adjacent bowel a fistula is formed between the two [1].

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It is usually the size of the stone which determines the outcome. Stones of less than 2.5 cm pass spontaneously. We found the impacted stone of size 5 x 7 cm, which was oddly large. The size of obstructing stone ranges from 2.5 to 5 cm [2].

In 10 – 20% cases the gall stone gets impacted at terminal ileum (60%), the site in this case as well. Less common site of impaction are jejunum, duodenum or colon [2,3]. Clinical presentation is rarely specific and although our patient had the past history of gall stones, more than 30% of patients have no history of biliary symptoms. The insidious nature of clinical presentation, and lack of specific signs of biliary disease, is responsible for delayed diagnosis [4] as found out in our case. The median time between admission and operation is 2 –4 days [2]. X ray abdomen may be helpful in diagnosis of gall stone ileus. Pathognomonic findings are uncommonly found [4]. Rigler's triad, on plain X-ray abdomen, which constitutes classical findings of gall stone ileus was absent in our case. It includes pneumobilia, intestinal obstruction and aberrantly located gall stones. Some consider presence of even two findings pathognomonic of gall stone ileus [8]. In general, diagnosis is made before the operation in less than half of the patients [5].

The management of gallstone ileus is controversial. The choice is between performing simple enterolithotomy, or a single stage procedure involving enterolithotomy, cholecystectomy and fistula closure. Most studies suggest that simple enterolithotomy is appropriate in the majority of the patients because it is relatively simple and minimizes operative time and morbidity for high-risk patients, while one stage operation is indicated in patients at low risk and when local and general conditions permit [6]. We opted for enterolithotomy because the patient was an old, frailly built lady. There were dense adhesions between gall bladder and adjacent organs and her general condition had further deteriorated at the end of first week of her disease. Cholecystectomy and fistula closure could be done at a later stage if the symptoms persisted. It is rare. Only 10% of patients require an operation later on, for continued symptoms related to gall stones. . Our patient remained symptom free on follow up.



Fig. 1: Enterotomy revealing gall stone obturation

CONCLUSION

Gallstone ileus is a rare complication of gall stones and an uncommon cause of intestinal obstruction. It should be considered in elderly women with gall stones who present with incomplete intestinal obstruction, even in absence of pneumobilia and aberrantly located gall stones.

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