CASE REPORT PROF-1323

GALL STONE ILEUS;
A SERIOUS COMPLICATION OF CHOLELITHIASIS IN AN ELDERLY

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ABSTRACT... mamir99@yahoo.com. Gallstone ileus (GSI) is an uncommon cause of intestinal obstruction. The formation of a fistula between the gall bladder and the bowel wall may allow a gallstone to enter the intestinal tract. Plain abdominal films, abdominal ultrasound and abdominal computed tomography aid in the diagnosis. Surgery is the treatment of choice in cases of gallstone ileus rate. We describe the case of a 68-year-old man who presented with symptoms and signs of intestinal obstruction. Diagnostic evaluation revealed a large gallstone impacted in the ileum. The patient was scheduled for exploratory laparotomy. At the time of surgery stone was found in the sigmoid colon. It was milked down and brought out through the rectum.

Key words: Gallstone Ileus. Intestinal Obstruction. Gall Stones.

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 a rare complication of gallstones causing intestinal obstruction[1].

GSI is frequently preceded by an episode of acute cholecystitis. The resulting inflammation and adhesions facilitate the erosion of the offending gallstone through the gall bladder wall forming a cholecystoenteric fistula and allowing the passage of the gallstone. Cholesysto-duodenal fistula is seen most frequently followed by cholecysto-colic fistula. In the elderly, GSI is a more frequent problem and is a cause of significant morbidity and even mortality[2]. The main reasons observed are: older age group, co-morbid factors like IHD, hypertension and diabetes mellitus in the patients, unusual presentation and difficult diagnosis and therefore, delay in the management[3].

CASE HISTORY

A 68 Year old male presented through ER with history of upper abdominal pain for the last two weeks, intractable vomiting and absolute constipation for last 10 days and hiccups for last 7 days. He was also a known case of

ischemic heart disease, hypertension and spondylosis. He also had a history of stroke 3 years back from which he recovered well. He remains admitted in another hospital for 7 days and was investigated and managed conservatively. Investigations showed high TLC (14200/mm3) normal hemoglobin and mildly deranged LFT's. Ultrasound revealed dilated common bile duct with air in it (pneumobilia). Gall bladder could not be appreciated. Plain X-ray abdomen revealed dilated loops of small bowel with air in biliary passage. Barium meal follow through showed jejunal diverticulosis, contrast-filled dilated biliary passages with filling defects in the distal CBD suggestive of choledocholithiasis and dilated loops of bowel with no contrast moving beyond distal ileum. A contrast-lined radiopaque shadow was visible in the ileum (Fig. 1). A suspected diagnosis of gall stone ileus was made. He did not improve with conservative management and was referred to our hospital. On the day of presentation abdominal examination revealed a non-tender, distended and soft abdomen. No mass was palpable and bowel sounds were negative on auscultation.

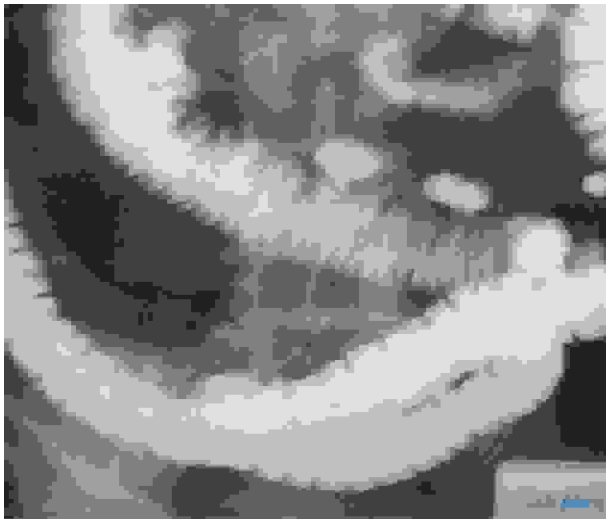

Fig. 1 Barium meal follow-through of the patient showing dilated loops of small bowel, jejunal diverticuli and radiopaque shadow (arrow-pointed) in the distal ileum thought to be gall stone. No contrast is seen moving beyond this opacity suggestive of paralytic ileus.

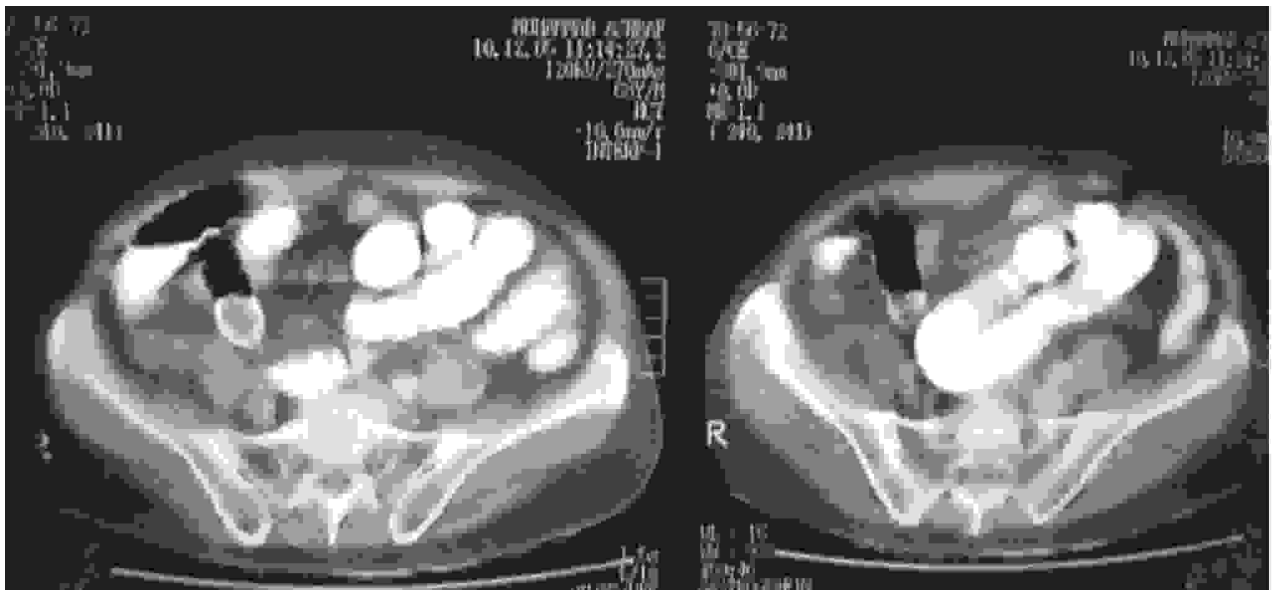

Fig-2. CAT scan showing opacified calculus in the terminal ileum (arrow-pointed) &dilated loops of bowel

Laboratory examination showed a white blood cell count of 19,100/mm3 (neutrophils 84%), normal serum liver enzymes and amylase values. A repeat plain abdominal X-ray demonstrated pneumobilia, mildly dilated contrast filled small bowel loops (due to previously given contrast one week ago).Computed tomography scan of the abdomen revealed pneumobilia, dilated loops of small bowel and the presence of a large calcified mass in the distal ileum, suggestive of a gallstone (Fig. 2).

Diagnosis of Gallstone ileus was made. The serum potassium was low and replaced with infusion of KCl. Patient's ileus, however, did not improve and he was booked for surgery the following morning. The patient underwent exploratory laparotomy. At the time of operation the stone was found in the sigmoid colon. It was milked down and brought out through rectum. Post-operatively the patient had a slow recovery due to his overall poor general condition. His hiccoughs persisted with disturbed sensorium for one week. Neurological assessment including CT scan of brain revealed no fresh intracranial changes. His bowels opened after two days and tube feeding was started after three days. He improved slowly and was transferred to hospice care for convalescence.

DISCUSSION

Gallstone ileus accounts for 1–3% of mechanical obstruction of the small bowel in all age groups but more than 25% in patients over the age of 65. Concomitant cardio respiratory diseases or diabetes are frequent in older patients and responsible for the high mortality rate[2,4]. Our patient, too, was older than 65 years and had concomitant ischemic heart disease, hypertension and spondylosis.

The gallstone should be at least 2-2.5 cm in diameter to cause obstruction. The site of impaction can be anywhere in the gastrointestinal (GI) tract. The terminal ileum and the ileocecal valve are the most common locations because of their narrow lumen and potentially less active peristalsis. Pneumobilia occurs only in one-third of the cases due to occlusion of the cystic duct or the common bile duct from the inflammatory process within the gall bladder. Surgery is the treatment of choice [2]. Gall stone ileus is a rare cause of small bowel obstruction[5]. Only two cases of Gall stone ileus has been reported in literature in Pakistan. The most important investigation in the evaluation of GSI is a scout film of the abdomen[6]. The classic roentgenographic signs, described by Rigler et al, include intestinal obstruction, pneumobilia, aberrantly located gallstone and change of location of the previously identified stone on serial exams[7]. The correct pre-operative diagnosis, however, is only possible in 10-44% of cases[8]. Our case had classical triad of intestinal obstruction, pneumobilia, and gall stone in the right iliac fossa.

Gallstone ileus requires urgent and appropriate surgical therapy. Enterolithotomy remains the gold standard of operative treatment for gallstone ileus. Additional procedures i.e. cholecystectomy and repair of fistula are necessary at a later stage[9]. Recently one-stage procedure of enterolithotomy, cholecystectomy and repair of fistula has been advocated to prevent cholangitis, cholecystitis and recurrent ileus caused by further gallstones but bears the risk of enteric or biliary leakage after fistula closure. One-stage procedure is recommended only in low risk patients[3]. Our patient was a high risk case and underwent minimal procedure in emergency. He would undergo formal cholecystectomy and closure of fistula at a later stage. Although in this patient the stone was found in the large bowel at the time of surgery, it should not be considered a recommendation for a viable option of management in a patient with gall stone impaction of small bowel. In this patient an un-necessary delay was seen in the proper management and referral of the patient. Ideally one should not wait for too long to try conservative management for spontaneous passage of the stone.

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