## Case Report

DOI: http://dx.doi.org/10.18203/2349-2902.isj20151117

# Gallstone ileus: a rare case of distal jejunal obstruction

## Sajeed Ahmed\*, Tamajyoti Ghosh

Department of General Surgery, Assam Medical College & Hospital, Dibrugarh, Assam, India

Received: 06 September 2015 Accepted: 07 October 2015

### \*Correspondence: Dr. Sajeed Ahmed,

E-mail: sajeedfarah@hotmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

#### **ABSTRACT**

Gallstone ileus as a cause of distal jejunal obstruction is rare. Herein we present a case of gallstone ileus without any previous biliary symptoms and with Rigler's triad on radiological investigation. As the signs and symptoms of gallstone ileus is nonspecific high index of suspicion is necessary to make a diagnosis of gallstone ileus. One staged cholecystectomy, fistula repair and enterolithotomy was done and patient recovered uneventfully.

**Keywords:** Gallstone ileus, small bowel obstruction, Rigler's triad

#### INTRODUCTION

Gallstone ileus is defined as the blockage of the intestinal tract by a gallstone large enough to occlude its lumen partially or completely. Gallstone ileus is an uncommon entity accounting for 1-4% of small bowel obstruction.<sup>3</sup> It accounts for 0.3-0.5% of patients having cholelithiasis.<sup>4</sup> Gallstone ileus with stone impacted in distal jejunum is found in only 15% cases.<sup>2</sup> Cholecystoduodenal fistula constitutes 55-75% of all cholecystoenteric fistula & gallstone ileus constitutes 8-20% of patients with biliary enteric fistula.<sup>5</sup> 50% of patients with gallstone ileus do not have any previous biliary symptoms. 6 Investigation of choice for gallstone ileus is CECT abdomen. Rigler's triad is found in 78% of cases with gallstone ileus in CECT abdomen.<sup>1,6</sup>

#### **CASE REPORT**

A 70 year old male patient was referred to our institute with history of vomiting and pain abdomen for 1week. There was no history of abdominal distension, fever, jaundice or dyspepsia. There was history of anorexia and no passage of stool for last 1week. Micturition was normal. On examination there was mild dehydration but no pallor, icterus or oedema. On per abdominal examination periumbilical tenderness was present, but no abdominal distension, guarding or rigidity. Bowel sound was present. Digital rectal examination was normal. The patient was referred from a peripheral hospital with Ryle's tube in-situ; aspirate was bilious approximately 200ml /day.

His haemoglobin was 11g/dl; total bilirubin was 1.1mg/dl, SGOT 30U/l, SGPT 55U/l, GGT 70U/l, albumin 3mg/dl, Na+ 132mmol/dl, K+ 2.8 mmol/dl. The patient underwent an upper GI endoscopy for his repeated episodes of vomiting which revealed an ulcer at duodenal bulb which was probably the proximal opening of cholecystoduodenal fistula. Plain X ray abdomen and USG abdomen was normal. CECT Abdomen revealed pneumobilia, impacted calculi in distal jejunum with proximal bowel dilatation, contracted gallbladder with few air foci, oedematous 2<sup>nd</sup> and 3<sup>rd</sup> part of duodenum with all features suggestive of Gallstone ileus. The patient was planned for surgery his albumin and

electrolytes level optimized. Abdomen was opened by right paramedian incision Gallbladder was found to be contracted and adhered to 2<sup>nd</sup> part of duodenum. Large cholecystoduodenal fistula was dissected out and cholecystectomy followed by repair of duodenal fistula done. Small bowels were found distended and oedematous Serial examination of small bowel revealed impacted stone at distal jejunum 150 cm from duodenojejunal junction. Stone of size 5x3x2cm was retrieved by enterotomy. Enterotomy was closed in single layer. Abdomen was closed in layers after placing an intraperitoneal drain. Post-operative period was uneventful and patient started on oral feeds from 5<sup>th</sup> day onward. Drain was removed on 7<sup>th</sup> day and patient discharged on 10<sup>th</sup> day.

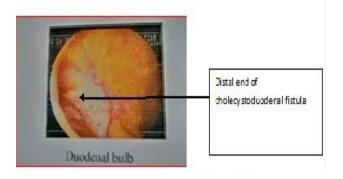


Figure 1: Distal opening of cholecystoduodenal fistula.

ECTOPIC GALLSTONE



Figure 2: Sagital section showing radio opaque stone in proximal jejunum, air foci in biliary tree.

#### DISCUSSION

The signs and symptoms of gallstone ileus are nonspecific contributing to a delay in diagnosis. Diagnosis of Gallstone ileus is difficult and in about 50% of cases it is intraoperative. Diagnostic accuracy of plain abdominal film is about 50%, although only 10% of

gallstones are sufficiently calcified to be radio graphically visualized.<sup>5</sup> Enterolithotomy alone remains the most common operative method in the majority of cases, because of its low incidence of complications. A spontaneous closure of the fistulous tract is observed in more than 50% of cases.<sup>7</sup>



Figure 3: Stone milked out through enterotomy wound.

Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

#### **REFERENCES**

- 1. Tavakkoli A, Ashley SW, Zinner MJ. Small Intestine, Schwartz's Principle of Surgery 10th e chapter 28, 1146.
- 2. Conlon Kevin, Bailey and Love's Short Practice of Surgery, The Gallbladder and bile ducts chapter 67, 1107-1183.
- 3. Reisner RM, Cohen JR. Gallstone ileus: A review of 1001 cases, AM Surg. 1994;60(6):441-6.
- Blumgart Leslie H. Inflammatory, Infective, and Congenital A. Gallstones and Gallbladder Blumgart's Surgery of Liver, Biliary tract and Pancreas 5<sup>th</sup> ed, 649-651.
- 5. Clavien PA, et al. Gallstone ileus. Br J Surg. 1990;77:737-42.
- 6. Borman CN, Nole JF. Gallstone Obstruction Pathogenesis and Roentgen Manifestation. The Journal of the American Medical Asso, Chicago. 1941;117:1753-9.
- Doko M, Zovak M, Koplijar M, Glavan E, Ljubicic N, Hochstadter H. Comparison of surgical treatments of gallstone ileus: preliminary report. World Journal of Surg. 2003;27:400-4.

**Cite this article as:** Ahmed S, Ghosh T. Gallstone ileus: a rare case of distal jejunal obstruction. Int Surg J 2015;2:735-6.