Case Report

Gallstone ileus and jejunal perforation along with gangrenous bowel in a young patient: A case report

Mahesh Gupta, MS, DMAS, FMAS.1, Subhash Goyal, MS, MAMS, FAIS, FICS.1, Rikki Singal, MS, FICS.1, Rekha Goyal, MD.2, Sunder Lal Goyal, MS.1, Amit Mittal, MD.2

Departments of Surgery1 and Radiodiagnosis2, M.M. Institute of Medical Sciences and Research, Mullana, Haryana, India.

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Abstract

Context: Gallstone ileus is an uncommon condition with potentially serious complications including perforation and gangrene of the small bowel. Its diagnosis is difficult and surgery remains the mainstay of treatment. Here we are reporting the complications of this condition along with brief review of literature. Case Report: We report a case of intestinal obstruction due to gallstone in the small gut which was diagnosed preoperatively on ultrasonography and confirmed on exploratory laparotomy. Postoperative period was uneventful. Conclusion: Gallstone ileus is a rare cause of intestinal obstruction and it should be considered in patients who are suffering from gallstone disease and presenting with intestinal obstruction especially when no other obvious cause is seen.

Keywords: Tumbling obstruction, pneumobilia, gallstone ileus, perforation.

Correspondence to: Mahesh Gupta, Department of Surgery, M.M. Institute of Medical Sciences and Research, Mullana, (Distt-Ambala), Haryana, India, Pin Code-133203. Tel.: 09050580481, Fax: 01731304550, Email: gm982003@yahoo.com

Introduction

Gallstone ileus first described by Bartolin in 1654 is an uncommon surgical emergency exclusively in seventh and eighth decade, sparingly occurring in younger patients [1, 2]. Jejunal perforation with distal gangrenous segment in association with gallstone ileus remains a clinical curiosity. Hence we report such a case in a young patient of gallstone ileus.

Case Report

A thirty three year female presented with vomiting, abdominal pain, absolute constipation and hyperpyrexia for five days. Abdominal examination revealed rigidity, guarding, rebound tenderness and absent bowel sounds. An erect skiagram showed dilated loops of small bowel. Ultrasound revealed aperistaltic bowel loops, two calculi, of size 3 and 1 cm in the hypogastrum and proximal small gut respectively with suspicion of air in the gallbladder fossa (Figs. 1, 2). On laparotomy a large (3 cm) gallstone obstructing the distal ileum and perforation in jejunum of size 5-6 mm with approximately 2 feet of gangrenous patches in the adjacent bowel were identified (Fig. 3). The gallstone was removed through the perforation site after milking up (Fig. 4). Resection anastomosis was done. The patient is recouping well postoperatively.

Fig. 1 Ultrasound revealed calculus in relation to ileum with suspicion of air in gallbladder fossa.
Fig. 2 Ultrasound revealed calculus in relation to ileum with suspicion of air in gallbladder fossa.

Fig. 3 Peroperative picture showing site of jejunal perforation with adjacent gangrenous patches. The gallstone was milked proximally and taken out through the site of perforation.

Fig. 4 Peroperative picture showing the gallstone which was stuck up in the small bowel and was taken out through the perforated segment of the affected bowel.

Discussion

Though gallstone ileus primarily is an entity of old age yet encountered infrequently in younger patients. The gallstone intermittently obstructs bowel before impaction leading to tumbling obstruction [3]. In the past clinical and radiological aids were insufficient to clinch the diagnosis, however advent of CT and MRI has made it easier [4]. An ultrasound may reveal pneumobilia and a stone at ectopic site as was in our case [5]. Jejunal perforation along with gangrenous bowel rarely co-exists with gallstone ileus. In a review of 458 cases only two cases of perforation were cited [6]. The perforation occurs either at the site of impaction of gallstone, or at previous sites of obstruction and is because of pressure necrosis of jejunal wall [3].

The mainstay of treatment remains prompt intervention and relief of obstruction. Although one and two stage procedures can be carried out safely in all the patients with optimal survival but enterolithotomy alone is the minimal surgery sufficient in emergency situation [7].

It is an adequate procedure for elderly patients where subsequent cholecystectomy is not Mandatory [8, 9]. However in our case enterolithotomy was deferred because of planned resection anastomosis of the gangrenous & perforated bowel.

Conclusion

Though gallstone ileus poses a real clinical and radiological dilemma as a cause of small bowel obstruction yet a good clinical acumen and advanced radiological armentarian may prove beneficial in the preoperative diagnosis of this entity. Timely intervention with adequate surgery may improve the prognosis. This entity should be kept in the back of mind while dealing with a case of intestinal obstruction.

References