

Small-bowel obstruction after modified jejunioileal bypass surgery due to gallstone ileus

Sir,

Gallstone ileus induced by bilioenteric fistula as a true mechanical obstruction,^[1] includes 1%–4% of mechanical bowel obstructions^[2,3] can occur in any site of small bowel (SB), especially in the terminal ileum.^[1,3] In modified jejunioileal bypass (MJB), first described by Iraj Fazel in 1982, two points of SB, 15 cm after Treitz' ligament and 45 cm proximal to illeocecal valve, are resected and anastomosed, and the remaining resected bowel is anastomosed to the gallbladder and cecum^[4] that acts as a bilioenteric fistula and can lead to gallstone ileus due to an increased risk of gallstone formation after severe weight loss.^[2]

A 45-year-old female with body mass index (BMI) of 31 kg/m² was admitted to the emergency department of our academic hospital, with colicky abdominal pain, nausea, and vomiting in the recent 3 days. She had a history of open MJB for morbid obesity (with preoperative BMI of 48.5 kg/m²), 18 years ago. On physical examination, she had a distended abdomen with right lower quadrant tenderness. On laboratory data, she had normal complete blood count, amylase, lipase, blood urea nitrogen, creatinine, and C-reactive protein. In contrast abdominal computed tomography (CT) scan, there were evidences of SB obstruction [Figure 1]. The patient underwent diagnostic laparoscopy, and we found a 20-mm intraluminal gallstone as the etiology of SB obstruction approximately 20 cm after bilioenteric anastomosis. We performed laparoscopic enterotomy and stone removal [Figure 2]. The patient was discharged on the 2nd postoperative day, after liquid and semi-liquid food tolerance.

Gallstone ileus has nonspecific symptoms such as abdominal pain, constipation, nausea, or vomiting; is more frequent in females and older patients;^[2,5] and often needs emergent surgical management of obstruction that is performed laparoscopically in 10% of cases.^[1] Although enterotomy and stone removal may be the procedure of choice, simultaneous or interval cholecystectomy is controversial; in the presence of residual stones especially larger than 2.5 cm and in addition to the presence of bilioenteric fistula or anastomosis, there is a risk of further obstruction.^[4,5]

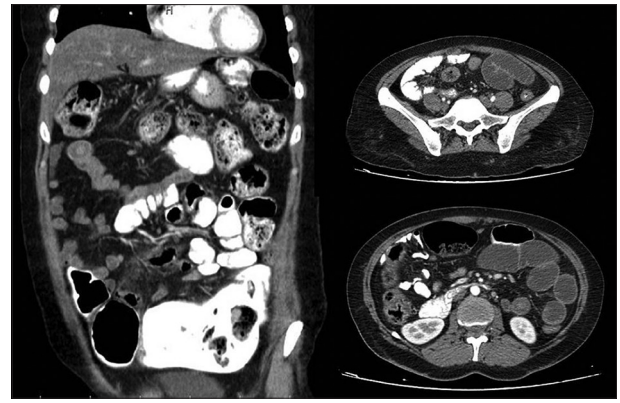


Figure 1: Evidences of small-bowel obstruction

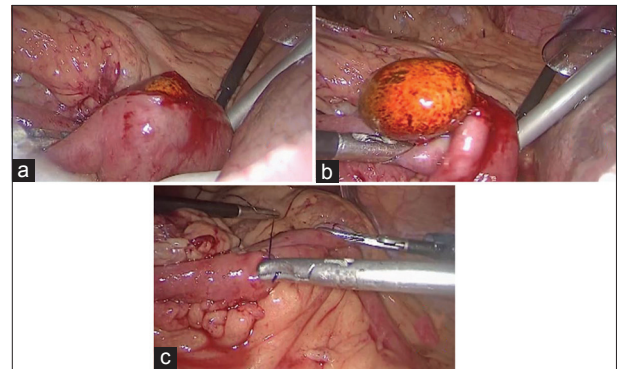


Figure 2: (a) Enterotomy, (b) Gallstone removal, (c) Closure of enterotomy site

In the presence of some unusual predisposing factors such as MJB, due to rapid weight loss, the risk of gallstone formation is increased, and also the presence of bilioenteric anastomosis makes the patients prone to gallstone ileus. MJB may be a risk factor for gallstone ileus, due to severe weight loss, which is a risk factor for gallstone formation, and the presence of bilioenteric anastomosis, which can be managed laparoscopically.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

Acknowledgments

This report was performed in accordance with the ethical standards noted in the appropriate version of the Declaration of Helsinki. The patient gave informed consent to use her data for report.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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