CASE REPORT

Gastric band erosion, infection and migration causing jejunal obstruction

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SUMMARY

Complications of laparoscopic adjustable gastric bands (LAGB) are well documented and may include migration, erosion, slippage, infection, pouch dilatation and, rarely, gastric perforation. We describe a rare case involving three such complications simultaneously, namely, gastric erosion, infection and migration through the pylorus-causing proximal jejunal obstruction. As LAGB is now the commonest performed bariatric procedure for the treatment of morbid obesity, we encourage the practising surgeon to be vigilant of these rare but potentially life-threatening complications.

BACKGROUND

LAGB remains the commonest performed bariatric procedure for the treatment of morbid obesity with minimal morbidity and low mortality. As a high-volume bariatric centre, common complications such as slippage, erosion, pouch dilatation, connection tubing and port-site problems occasionally arise postsurgery.¹ This case reports our first experience, as a high-volume bariatric centre, of high jejunal obstruction and systemic inflammatory response syndrome caused by an eroded and migrated gastric band.

CASE PRESENTATION

A 46-year-old Caucasian woman presented to a local hospital with a 10-day history of nausea, colicky upper abdominal pain, fever and bilious vomiting. She had a laparoscopic adjustable gastric band (LAGB) inserted 5 years prior with an initial weight of 140 kg. Her weight had fluctuated despite multiple band adjustments and she presented with a weight of 131 kg. She denied any previous admissions to hospital with similar symptoms. On physical examination, she was noted to have a progressively worsening pyrexia, tachycardia and abdominal distension for the preceding 10 days.

Laboratory investigations revealed a white blood cell count of $22 \times 10^9/l$ and a C reactive protein of 359 mg/dl. An x-ray of the abdomen showed suspected gastric, duodenal and proximal jejunal dilation. CT scanning (figures 1 and 2) revealed intraluminal band migration and proximal jejunal obstruction with prominent gastric dilation. She was started on intravenous fluids and broad spectrum antibiotics.

She underwent laparoscopy, which confirmed that the band had migrated to and impacted within the proximal jejunum causing acute small bowel obstruction. A longitudinal enterotomy was made proximal to the site of impaction and the

Figure 1 Axial CT image showing the gastric band migrated to and impacted in the jejunum.

connection tubing was divided allowing retrieval of the band. The enterotomy was closed transversely using 2/0 vicryl. The port and connection tubing were removed via an open technique through the original port-site incision. The patient made an uneventful recovery with a normal postoperative gastrograffin study.

INVESTIGATIONS

- ▶ Blood tests: full blood count, urea and electrolytes and C reactive protein
- ▶ Abdominal x-ray
- ▶ Abdominal CT scan

DIFFERENTIAL DIAGNOSIS

- ▶ Small bowel: adhesional small bowel obstruction, hernia, volvulus and intussusception

Figure 2 Axial CT image showing dilated proximal jejunum, duodenum and stomach.

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- ▶ Hepatobiliary: gallstone disease including gallstone ileus
- ▶ Pancreatic: acute pancreatitis

TREATMENT

Initially treated with intravenous antibiotics and fluids. Subsequent treatment was laparoscopic removal of the gastric band.

DISCUSSION

Late complications from LAGB are well known and can be divided into those affecting the band, the band connection tubing or the port.¹ The commonest of these are band slippage or migration, oesophageal enlargement or pouch dilation, gastric erosions and port/tubing dysfunction.^{2–5} Band migration causing pyloric and duodenal obstruction is well documented although jejunal obstruction is relatively rarer.⁶ With regard to migration and erosion, these complications can be managed, case by case, depending on the extent of band erosion or the degree of migration and subsequent clinical symptoms. When combined, however, the consequences should not be underestimated particularly with pylorus migration. Such complications may range from bezoar-like small bowel obstruction to frank perforation of the intestinal wall.¹ Proposed hypotheses from previous literature of intraluminal band migration causing frank perforation include ischaemic pressure from the intraluminal band worsened by repeated inflation/deflation of the band without x-ray guidance.¹

As a high-volume bariatric department, we present our first experience of laparoscopic management of this rare complication following LAGB. Further, this case highlights how a combination of well-known complications may manifest many years after the original procedure and that, in keeping with previous literature, axial CT still remains an invaluable modality for diagnosing such complications.⁷ The reporting of such a syndrome, we hope, will alert current and future general surgeons in NHS

to tackle such possibilities by early referral to special bariatric unit/early consultation.

Learning points

- ▶ In evaluating patients with laparoscopic adjustable gastric bands (LAGB), we advise the attending surgeon to be vigilant to the aforementioned potential complications and the possibility of these occurring simultaneously.
- ▶ On recognition, early referral to a specialist bariatric surgical unit may reduce the potentially life-threatening sequelae of these complications.
- ▶ Early radiological investigation can aid in the diagnosis of LAGB-associated complications with CT remaining the gold standard.

Competing interests None.

Patient consent Obtained.

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