FOREIGN BODY IMPACTION WITHIN THE PSEUDOPYLORUS AFTER MASON’S VERTICAL BARIATRIC GASTROPLASTY – A CASE REPORT

WOJCIECH SZCZĘSNY, STANISŁAW DĄBROWIECKI, JAKUB SZMYTKOWSKI, ADRIAN REŚLIŃSKI

Department of General and Endocrine Surgery, Nicolaus Copernicus University in Toruń, Collegium Medicum in Bydgoszcz
Kierownik: prof. dr hab. S. Dąbrowiecki

A rare case of solid foreign body impaction within the pseudopylorus created during Mason’s bariatric vertical banded gastroplasty is discussed in the report. The patient was referred to the authors’ center with symptoms of high gastrointestinal obstruction, which had appeared 48 hours prior to admission. The situation was resolved by endoscopic removal of the impacting foreign body with the use of Dormia basket. Anastomoses and strictures resulting from bariatric procedures are a frequent location of food bolus obstructions and bezoars. It is therefore important to perform a diagnostic gastroscopy prior to performing a bariatric procedure in order to check for preexisting conditions, including malignant tumors.

Key words: obesity, bariatric surgery, gastrointestinal obstruction

In the past 20 years, bariatric surgery has become one of the basic treatment methods of obesity and type 2 diabetes. Numerous meta-analyses indicate that it is only through bariatric surgery that one can achieve and sustain appropriate body mass reduction (1, 2, 3). The epidemic of obesity has led to an exponential growth of the number of bariatric procedures performed in the last decade of the 20th century. In the USA, the growth curve has reached a plateau of approximately 150 000 procedures per annum in 2003 (4). In Poland, this field of surgery has slowly been gaining acceptance among obesity specialists; thus, an increase in the number of performed procedures is to be expected (5). Bariatric procedures, when performed by experienced teams, are safe and carry low mortality and early complication rates (6). However, long-term complications of the surgical site and scar might develop; these require endoscopic or surgical intervention. Bariatric surgical procedures fall into two basic categories: by-pass and restrictive operations. The former serve to exclude a portion of the alimentary tract from digestion and absorption of nutrients; the latter limit the patient’s food intake. Several techniques utilize both of these concepts.

The authors have encountered a case of acute gastrointestinal obstruction caused by a foreign body in a patient after a restrictive bariatric procedure.

CASE REPORT

The patient was a 40-year-old male, who had undergone Mason’s vertical gastroplasty with the use of a limiting band (VBG) at the authors’ center in June, 2005. At the time of surgery he had had a BMI of 54.3 kg/m² and arterial hypertension. Upon readmission his BMI was 39.9 kg/m² and his arterial blood pressure was within normal range (without medication). In January, 2009, he underwent a partial thyroidectomy for nodular goiter and was scheduled for abdominoplasty. The patient was referred to the authors’ department on July 30th, 2009 with a 48-hour history of un-
controllable vomiting after every meal, including liquids. Prior to admission he had received an infusion of polyelectrolyte solution, glucose and antispasmodic drugs (in another center). The infusion failed to relieve his symptoms and he was referred to our department. On the day of admission, a gastroscopy was performed, which revealed a foreign body (a candied cherry) impacted within the pseudopylorus (fig. 1). It was retrieved with a Dormia basket. The endoscope was then reinserted and no stricture was observed. The only abnormal findings were mucosal erosions within the duodenum. After gastroscopy, the intestinal passage returned to normal. The patient was discharged the following day with a prescription of a standard dose of IPP.

**DISCUSSION**

Late complications and secondary procedures are not infrequent in patients after bariatric surgery. Incisional hernias and loose skin flaps within the abdomen, thighs and arms after significant weight reduction are a separate problem, far exceeding the scope of this report. Current guidelines recommend that upper gastrointestinal tract endoscopy be performed before surgery in order to prevent the rare cases of overlooked esophageal or gastric malignancies which are later discovered after a successful bariatric procedure (7). Another advantage of preoperative endoscopy is the ability to uncover benign lesions which may influence the postoperative course. Endoscopy is also one of the basic methods for the management of certain complications.

Restrictive bariatric procedures inevitably lead to the formation of iatrogenic strictures within the cardia or body of the stomach. In Mason’s vertical gastroplasty, the stricture is located within the pseudopylorus, which joins the two stomach pouches and which is limited from the outside by a polytetrafluoroethylene (PTFE) band. In laparoscopic gastric banding (LAGB), the stricture develops in the area covered by the restricting silicone band. These bands, being composed of a foreign material, may erode through the gastric wall into the lumen. For VBG, Moreno et al. have estimated the incidence of wall erosion and band migration at 1-3% (8). The symptoms include nausea, vomiting, pain and upper gastrointestinal bleeding. Most cases can be managed by endoscopy (scissors, Nd: YAG laser) (9) The concept of Mason’s gastroplasty and the exact location of the foreign body in our patient are presented in fig. 2. The laparoscopic band can also migrate to the gastric or esophageal lumen; the incidence of this complication is estimated at 0.5-4.6%, and according to Latuada et al. it is caused by infection and/or intraoperative gastric wall lesion rather than by the pressure of the band itself (10, 11).
A similar case has been presented by Strodel et al. in their series of endoscopic interventions in patients after bariatric procedures. In their material a cherry pit impacted within the pseudopylorus was the cause of vomiting. Like in our patient, the symptoms were completely relieved after removal of the foreign body (12). Bezoars may also cause alimentary tract obstruction after bariatric surgery. Fox et al. estimate that the incidence of bezoars after Mason’s procedure is 1% (13). The development of phytobezoars in this population is facilitated by gastric motor dysfunction and PPI intake. A bezoar composed of laxative agents has also been reported (14).

The case presented here brings attention to the possibility of acute upper gastrointestinal obstruction in bariatric patients. Such cases require particular attention and swift endoscopic intervention. They need to be differentiated from the nausea and vomiting caused by dietary errors often committed by bariatric patients, because foreign body impaction carries the risk of serious complications such as ulcerations which may lead to hemorrhage or even perforation.

REFERENCES


Received: 28.07.2010 r.
Address correspondence: 85-094 Bydgoszcz, ul. M. Skłodowskiej-Curie 9