

Case Report

Conversion of Lap-Band® to Gastric Bypass for Dilated Gastric Pouch

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An 18-year-old female who had undergone a laparoscopic adjustable gastric banding developed several episodes of gastric pouch dilatation (GPD), treated conservatively. The last GPD (31 months after Lap-Band® placement) involved the lesser curvature of the stomach and was refractory to medical treatment. Conversion to an open gastric bypass was performed. Gastric bypass is an option in the case of Lap-Band® failure.

Key words: Morbid obesity, bariatric surgery, laparoscopy, gastric banding, complication, gastric bypass

Introduction

Laparoscopic adjustable silicone gastric banding (LASGB) is currently the common operation in Europe for morbid obesity.^{1,2} The most frequent cause of re-operation is gastric pouch dilatation (GPD).¹⁻³ Several surgical techniques have been used for GPD: de-banding (DB), re-banding (RB); conversion to vertical banded gastroplasty (VBG), or biliopancreatic diversion. Although the gold-standard operation for morbid obesity in USA is Roux-en-Y gastric bypass (RYGBP), it has rarely been performed as a *rescue operation* following

GPD.^{4,5} We present a case of GPD 31 months following Lap-Band®, which was converted to laparoscopic RYGBP for weight maintenance.

Case Report

An 18-year-old female student presented at our clinic September 1996 complaining of social disability due to her obesity (172 cm, 137 kg, BMI 46.4 kg/m²; excess weight 113%; ideal body weight 64.6 kg). In our early experience, eating habits were not considered in the exclusion criteria for gastric banding. Evaluation by a psychologist was done after the surgical procedure, when a sweet-eater habit was identified.

LASGB was undertaken in December 1996, implanting a 9.75 cm Lap-Band® (BioEnterics, Carpinteria, CA) by a standard technique with a small pouch, with the band left deflated. This procedure was the tenth of our series. The peri-operative period was uneventful, and she was discharged on the third post-operative day with normal radiological esophago-gastric transit (Figure 1).

Band adjustment was initiated 3 months post-operatively. At 11 months, following a band fluid regulation (weight loss 44 kg; BMI 31.5), she presented untreatable vomiting. X-rays showed GPD (Figure 2), which was treated by band deflation. A second episode of GPD was diagnosed 13 months

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Figure 1. Regular gastro-esophageal transit 3 days after LASBG placement.

postoperatively, following band re-adjustment, which was still treated by band deflation. After this procedure, the band was left empty, and the patient required two further hospital admissions for vomiting and stenosis of the neo-pylorus, which was treated by gastric suction and parenteral nutrition. In July 1999, the patient (BMI 31.5) presented with GPD involving the lesser curve of the stomach, and could only take oral fluid (Figure 3). She was scheduled for surgical revision with the diagnosis of GPD refractory to conservative treatment.

RYGBP was performed by upper midline incision. The band was detected by traction on the con-



Figure 2. Gastric pouch dilatation (GPD) 11 months after LASBG placement.

necting tube, and was readily removed. The retro-gastric tunnel of the band was used to insert two linear staplers, and the stomach was transected. Small bowel was divided by a GIA, 40 cm distal to Treitz ligament. The biliopancreatic limb was anastomosed at 150 cm on the alimentary limb. A purse-string suture was placed on the inferior angle of the proximal gastric pouch, the staple-line was removed, and a 2.5 anvil was inserted in the stomach. An end-to-end gastrojejunal anastomosis was performed with the circular stapler via a jejunotomy. Methylene blue test was used to check the anastomosis, and the nasogastric tube was passed through it.

The post-operative course was uneventful. On the 3rd postoperative day, a Gastrografin® swallow showed a patent intact gastrojejunal anastomosis (Figure 4), and the patient was given oral fluids. She was discharged from hospital on the 8th postoperative day. She has done well postoperatively, with BMI 24 at 1 year.

Discussion

GPD is the most frequent complication of LASGB, with an incidence of 3-20%.¹⁻³ This complication has been reduced to <3% by a “virtual” tiny pouch above the lesser sac and band fixation (4-5 stitches) near the cardioesophageal junction. When revision



Figure 3. GPD at 31 months.

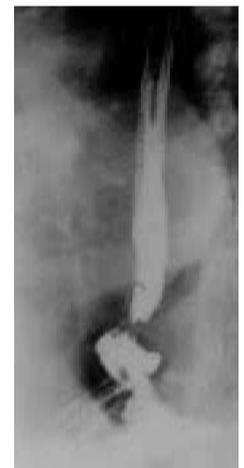


Figure 4. Gastrografin® transit of gastrojejunal anastomosis after RYGBP.

is required, controversy exists over the best surgical option.

The diagnosis of GPD is based on food intolerance and radiological evidence of proximal pouch obstruction without transit through the band. Endoscopy usually shows severe esophagitis. The band should be deflated as a conservative first maneuver. In unresolved cases, patients are scheduled for surgery. The easiest option is band removal laparoscopically. Band repositioning has been performed in our and other series, usually by laparoscopic access.¹⁻³ Anterior or posterior gastric wall slippage is often impossible to diagnose pre-operatively. It requires opening of the band, removal of sutures, reduction of the pouch by stretching the gastric wall downward, and resuturing over the band. Dilated pouch reduction has proved to be feasible in our experience for slippage of the fundus on the greater curvature with band dislocation in clockwise direction. Repair of slippage on the lesser curvature, as in the above patient, requires band removal followed by re-implantation of a band creating a new retrogastric tunnel higher up on the lesser curvature. This procedure can be technically demanding laparoscopically, and the patient may have shown non-compliance after the LASGB. In cases of GPD after gastric banding, especially with satisfactory weight loss, RYGBP is an excellent option.^{5,6} This operation is also laparo-

scopically feasible.^{6,7} RYGBP should be considered another rescue option for Lap-Band[®] failure.⁸

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