



Total Gastrectomy with Roux-En-Y esophagojejunostomy for Chronic Complicated Post-Sleeve Gastric Fistula—Video Report

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Abstract

Introduction Laparoscopic sleeve gastrectomy (LSG) has become one of the most popular bariatric surgeries worldwide. However, complications related to the stapler line can be very serious. Among several challenging post-LSG complications, fistula is the most feared. Its management can be very challenging and chronic. In case of chronic fistula and failure of surgical, endoscopic, and radiological treatment, total gastrectomy with esophageal anastomosis (RYOJ) can be considered as an effective solution. We describe in this video the steps of our laparoscopic technique.

Methods We have performed a total gastrectomy with RYOJ in a particular patient with chronic and persisting gastric fistula 9 months after LSG. The body mass index (BMI) was initially 50 kg/m² at the time of the LSG against 31 kg/m² on the day of the RYOJ.

Results The postoperative course was uneventful. An upper GI series was done at 1 week and 1 month postoperatively without any abnormality. The patient was evaluated clinically and biologically at 1, 3, and 6 months later on with no evidence of dysphasia or biological abnormality.

Conclusion RYOJ in our particular case was efficient. However, longer series and longer follow-up are needed to confirm the effectiveness of this rescue procedure.

Keywords Sleeve gastrectomy · Chronic fistula · Roux-en-Y esophagojejunostomy

Introduction

Laparoscopic sleeve gastrectomy (LSG) has become one of the most popular bariatric surgeries worldwide, given good result concerning weight loss and long-term morbidity [1].

The surgical technique of LSG is well standardized, and despite its technical simplicity compared to more complex bariatric malabsorptive procedures, LSG complications are not nil. Among several challenging post-LSG complications, fistula is the most feared [2].

The incidence of gastric fistula after LSG varies from 1 to 7%, but is less than 3% in experienced hands [3]. No standard protocol for management of gastric leak exists. Management of leaks following bariatric surgery (BS) is associated with high morbidity and mortality and remains an interdisciplinary challenge [4]. Reoperation is usually unsuccessful and burdened with high-postoperative complications because of surrounding inflammatory tissues and ischemic edges. Therefore, surgical treatment should be reserved for patients presenting with severe sepsis or multiorgan failure [5, 6]. Mainstay of nonsurgical treatment consists of complete drainage of any fluid collection, enteral hyper-alimentation, and antibiotics therapy [7]. The use of pigtail drain in post sleeve gastrectomy leaks showed to be efficacious, better tolerated, requiring fewer procedures, and shorter healing time compared to self-expandable metal stent (SEMS) [8].

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In case of chronic fistula and failure of a previous conservative treatment (surgical, endoscopic, or radiological), a more radical solution like total gastrectomy with Roux-en-Y esophagojejunostomy (RYOJ), Roux-en-Y fistulojejunostomy (RYFJ), or Roux-en-Y gastrojejunostomy might be considered [2, 9–11].

The purpose of this video is to demonstrate the operative technique of laparoscopic total gastrectomy with RYOJ for chronic fistula after LSG.

Method

We have performed a total gastrectomy with RYOJ in a particular patient with chronic and persisting gastric fistula 9 months after LSG. The body mass index (BMI) was initially 50 kg/m² at the time of the LSG against 31 kg/m² on the day of the RYOJ. This particular patient was treated twice surgically for sepsis control (the first one at 1 week post LSG with lavage, suturing, and drainage and the second one at 12 days post LSG with lavage, intubation of the fistula with T tube, and drainage). At day 18 post-LSG and 6 days after the second surgical control, the sepsis is controlled after radiological drainage of residual collection. Endoscopic control of the fistula was done for the first time at 3 days post radiological drainage of the residual collection and 21 days post LSG, with insertion of double pigtail and nasojejunal tube for parenteral nutrition. A clinical and biological amelioration of the patient authorized the oral alimentation. Later on, several endoscopic controls were done every month with total, four double pigtails have been changed. However, there was no resolution of the fistula with a residual chronic subphrenic collection. The patient develops a severe sepsis at 6 month which is controlled by antibiotics. Therefore, it is decided to make a radical surgical solution to treat this chronic complicated fistula.

Result

The postoperative course was uneventful. An upper GI series was done at 1 week and 1 month postoperatively without any abnormality. The oral intact was resumed progressively at 1 week postoperatively. The vitamins and oligo-elements supplementation were prescribed as for Roux-en-Y gastric bypass. The patient was evaluated clinically and biologically at 1, 3, and 6 months later on with no evidence of dysphasia or biological abnormality.

Conclusion

RYOJ in our particular case was efficient. However, longer series and longer follow-up are needed to confirm the effectiveness of this rescue procedure.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflicts of interest.

Informed Consent Informed consent was obtained from the individual participant included in the study.

Ethical Approval The procedure was performed in accordance with the ethical standards of the institutional and the national research committee.

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Dr. Georges Bou Nassif, corresponding author of this study, certify that the manuscript did not involve the use of animal or human subjects.

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