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VIDEO SUBMISSION

Laparoscopic Roux-En-Y Fistulo-Jejunostomy, a Preferred Technique after Failure of Endoscopic and Radiologic Management of Fistula Post Sleeve Gastrectomy

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Abstract

Background Laparoscopic sleeve gastrectomy represents the most performed bariatric procedure in France. Staple line leak is the major short-term complication of the procedure. Patients with persistent fistula after sleeve gastrectomy, after failure of endoscopic and radiological treatment, are candidates for salvage surgery. Laparoscopic fistulo-jejunostomy (LRYFJ) represents a surgical option to treat persistent fistula post sleeve.

Methods The case of a 46-year-old woman, with persistent fistula after sleeve gastrectomy, undergoing laparoscopic fistula-jejunostomy is presented. The patient developed an abdominal abscess 2 months after sleeve gastrectomy, treated with radiological drainage. Upper gastrointestinal endoscopy was performed for pigtail insertion. Three months later, the fistula was persistent and salvage surgery was proposed. At surgery, the pigtail drain and the fistula orifice were identified with careful dissection. Then a manual Roux-en-Y fistula-jejunal anastomosis and a mechanical jejuno-jejunal anastomosis are performed.

Results The postoperative course was uneventful.

Conclusions LRYFJ for chronic fistula after sleeve gastrectomy is safe and effective. However, it remains a challenging procedure and should be reserved for specialized centers.

Keywords Surgical technique · Roux-En-Y fistulo-jejunostomy · Sleeve gastrectomy · Fistulas post sleeve

Background

Since 2011, laparoscopic sleeve gastrectomy (SG) represents the most performed bariatric intervention in France [1]. The two major short-term complications after SG are staple line leak and bleeding. The incidence in the literature is approximately 1–6% for leakage [2]. Stable patients may be managed conservatively, with antibiotics, percutaneous drainage, and endoscopy-based treatment [3]. Patients with persistent fistula after failure of endoscopic and radiologic management are candidates for salvage surgery. Three surgical options exist: conversion to gastric bypass, total or subtotal gastrectomy, and laparoscopic Roux-en-Y fistulo-jejunostomy (LRYFJ). LRYFJ seems the most accepted surgical option to treat persistent fistulas post sleeve [4–6]. With the Roux-en-Y gastric bypass, the fistula tract is left, whereas with the total gastrectomy, the patient is subjected to a relatively high risk of complications related to the esophagojejunal anastomosis and the nutritional deficiencies and anemia. The aim of this video is to present the LRYFJ as a salvage procedure for treating fistula post SG after failure of endoscopic and radiologic interventions.

Methods

We present the case of a 46-year-old woman who underwent SG in another institution in January 2018. Two months after,

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she complained of abdominal pain and fever. A computed tomography scan (CT) was performed that showed a 10 × 6 × 5 cm perigastric abscess. She was referred then to our institution. A percutaneous drainage was done, followed 10 days later by an endoscopy with insertion of a double pigtail. Three months later, the leak persisted on a CT scan; therefore, we decided to perform a LRYFJ.

In this video, we present step-by-step the LRYFJ. The surgeon stands on the right side of the patient. Insufflation is done using a Veress needle. We used 5 trocars.

There are often a lot of adherences between the gastric tube and the liver and between the gastric tube and the greater omentum at the location of the already drained abdominal abscess at the angle of His. We should be careful not to injure the esophagus during the dissection of the esogastric junction. We identified the pigtail drain and the orifice of the gastric fistula and the fistulous tract. This dissection should be completed until the esogastric junction and the left pillar should be well exposed, in order to create enough space to perform the fistulo-jejunostomy. We removed the pigtail drain and the fibrotic tissue of the fistulous tract.

After that, we identified the ligament of Treitz. We counted 50 cm and we divided the jejunum using an endo GIA 60 white. We then counted 60 cm of bowel for the alimentary limb. A mechanical side-to-side jejuno-jejunal anastomosis using endo GIA 60 white and an absorbable 2–0 monofilament was performed.

Then, we performed a two-layered side-to-side manual fistulo-jejunal anastomosis using an absorbable 2–0 monofilament. We closed the Petersen and mesenteric defects. A closed suction drain was inserted.

Results

The postoperative course was smooth and no postoperative complications were noted.

Conclusion

LRYFJ for chronic leak/fistula after SG is safe and effective. However, it remains a technically challenging operation and should be reserved to specialized centers.

Compliance with Ethical Standards

Declaration of Interest The authors declare that they have no conflict of interest.

Statement of Informed Consent Informed consent was obtained from the participant.

Statement of Human Rights Informed consent was obtained from the participant.

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