




# Endoscopic Approaches for Post Roux-en-Y Gastric Bypass Leaks: How to Choose the Best Tool for Each Task

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Obesity and its comorbidities are considered a public health issue worldwide. Bariatric surgery remains the most effective and durable therapy regarding weight loss and metabolic control [1]. Despite its effectiveness, weight recurrence occurs very commonly, and at least one third of patients will regain more than 25% of total weight lost typically within 2 to 5 years of surgery [2]. Thus, the number of revisional surgeries is increasing [3]. However, this procedure is associated with higher morbidity compared to primary bariatric and metabolic surgeries [4].

Leaks occur in about 8% of revisional surgeries [5]. Treating this condition is challenging, and a multidisciplinary approach is needed [6–10]. Endoscopic approaches including closure, cover, and drainage techniques have demonstrated satisfactory efficacy and safety profile in its management [6, 7, 11]. The best endoscopic approach depends on several factors, such as leak time, defect size and location, device availability, patient acceptance, and local experience [6, 7, 12–14].

This video discusses in detail all the endoscopic approaches to manage post-RYGB leaks.

## Case Description

A 50-year-old man with class II obesity underwent revisional laparoscopic RYGB surgery with reduction of the pouch and gastrojejunal anastomoses (GJA) diameter. He presented with abdominal pain and imaging diagnosed GJA leak associated with a contained collection.

An esophagogastroduodenoscopy (EGD) with fluoroscopy assistance was then performed, confirming imaging findings.

Endoscopic treatment was performed with endoscopic internal drainage with two pigtail stents (EID-DPS) and intraluminal homemade endoscopic vacuum therapy (H-EVT) placement. The H-EVT was manufactured in the gastric portion of a double lumen tube allowing drainage and nutrition with one tube through the patient's nares, reducing discomfort. Other options in this context would be closure (such as clips or endoscopic suture) or coverage techniques (stents); however, external drainage would be essential in these scenarios. Treatment with tissue sealants is not indicated due to the inexistence of a fistulous tract, and cardiac septal occluder placement cannot be done due to the acute context and the absence of an epithelized tract.

Six days later, a second EGD evaluation revealed another leak located at the proximal pouch staple line. The leak orifice was connected to the associated collection, previously drained with the DPS. Granulation tissue and no signs of ischemia and infection were noted. The gastric pouch wall between the two leaks orifices, turned into a septum between the pouch and the contained associated collection. Therefore, a septotomy was performed, and the two chambers became a single compartment (normal gastric pouch). An intraluminal double-lumen H-EVT was placed again to improve tissue healing and nutrition.

During the following week, the patient had no more symptoms, and a revisional EGD was performed, showing

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a normal RYGB anatomy with no complications, confirming successful endoscopic treatment.

Three days later, he was discharged from the hospital without any symptoms. During 6-month follow-up, the patient had no complaints.

In summary, knowledge of mechanism of action of each endoscopic therapy is crucial to achieve clinical success for post-RYGB leaks. As drainage is a fundamental principle for managing intracavitary collection, endoscopic draining techniques should be preferred for post-surgical leaks with associated collections. As post-bariatric surgical complications are a complex condition, multiple therapies and repeated procedures are usually required. Moreover, multidisciplinary approach and close follow-up are key for treatment success.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s11695-023-06658-4>.

## Declarations

**Ethics Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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