

not be a contraindication for surgery with curative intent, as R0 resection is possible in selected patients. Likewise, the overall survival and disease-free survival rates are comparable to those observed in cases of locoregional recurrence of CRC without vascular involvement.

Funding

The authors have received no funding for this study.

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<https://doi.org/10.1016/j.cireng.2022.02.006>

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Sigmoid colon adenocarcinoma local relapse on abdominal wall. Oncological resection and complex abdominal wall reconstruction[☆]



Recidiva local de adenocarcinoma de sigma sobre pared abdominal. Resección oncológica y reconstrucción de pared compleja

Abdominal wall involvement in colon cancer is a surgical challenge requiring extensive *en bloc* resection of all elements affected by the tumor. It is a rare complication of these tumors that requires proper planning and multidisciplinary assessment.

We present the case of a 76-year-old male with a history of stenosing sigmoid adenocarcinoma who presented an abdominal wall fistula on imaging tests (T4). An endoluminal stent

was inserted as a bridge to surgery in order to facilitate the possibility of anastomosis. Subsequently, complete cytoreduction was performed with complete peritonectomy of the left iliac fossa and flank, dissection of the left gonadal vessels and vas deferens due to tumor involvement, appendectomy, cholecystectomy and complete omentectomy, as well as mitomycin C-based HIPEC as part of a trial for advanced colon tumors¹.

[☆] Please cite this article as: Gil-Catalán A, Segura-Sampedro JJ, Jerí-McFarlane S, Estrada-Cuxart J, Morales-Soriano R. Recidiva local de adenocarcinoma de sigma sobre pared abdominal. Resección oncológica y reconstrucción de pared compleja. *Cir Esp.* 2022. <https://doi.org/10.1016/j.ciresp.2020.11.019>

During surgery, there was no evidence of peritoneal dissemination of the disease (PCI 0). Wall involvement was limited to contact with the internal inguinal orifice, where it trapped the left spermatic vessels and vas deferens. We resected the structures of the inguinal canal and the peritoneum of the left iliac fossa (including that of the left inguinal orifice).

Cytology of the peritoneal fluid was negative for malignant disease. The pathological study identified a moderately differentiated adenocarcinoma of the sigmoid measuring 9 × 8 cm with a stent perforating the colon wall, T4b, free resection margins, lymph node involvement 0/23. The excised peritoneum (20 × 6 cm) was free of tumor invasion. After surgery, the patient was administered adjuvant chemotherapy with capecitabine.

In the initial outpatient follow-up visits, no complications were observed. Six months after surgery, however, a left inguinal mass appeared with signs of inflammation. The mass was drained under local anesthesia, finding a purulent collection. Intravenous antibiotic therapy was administered to control the septic focus.

Abdominopelvic CT scan (Fig. 1) revealed a lesion associated with the left rectus abdominis muscle, coinciding with the area of the wall where the lesion initially fistulized. A PET/CT scan described increased metabolism of the inguinal tumor, compatible with neoplastic recurrence. Finally, FNA biopsy was taken from the lesion, which was positive for intestinal-type adenocarcinoma.

Given the results of the complementary tests and the recurrent infections that prevented the administration of neoadjuvant therapy, we decided to reoperate, remove the affected area, and completely reconstruct the area at the same time. We performed *en bloc* excision of the affected abdominal wall from the left anterosuperior iliac crest to the root of the penis, including the left external oblique, anterior rectus, and transverse muscles, resulting in a defect of about 40 × 50 cm.

Visceral resections included left orchiectomy, resection of a jejunal loop in contact with the mass, and mechanical side-to-side isoperistaltic anastomosis. The wall closure was performed with bicomponent mesh (Proceed® 40 × 40 cm) in a bridge-type repair, sutured to the aponeurosis of the rectus and oblique external muscles medially and to the anterior superior iliac spine laterally, making small perforations in the latter with a drill. Coverage of the skin defect was performed with a pedicled anterolateral thigh (ALT) flap, and the area from which the flap was harvested was covered with partial skin grafts (Fig. 2).

The pathological study of the piece identified an intestinal adenocarcinoma measuring 18 × 16 × 10 cm with an abscessed component at the cutaneous level, no involvement of the intestine or testicle, and free margins. The postoperative period was correct and complication-free. After 20 months of follow-up, the patient remains free of disease and only presents a moderate loss of function in the left lower extremity (34 points on the lower extremity functional scale, or LEFS).

For the staging of the wall defect, we used the Anderson abdominal wall reconstruction classification system for oncological pathology. According to this, the defect would be type I-II-IV (left mesogastric, hypogastric and abdominal wall) subtype C (involvement of the wall in its entire thickness)⁷.

Abdominal wall involvement in colon cancer occurs in approximately 7.5% of cases, requiring *en bloc* resections of the colon and affected areas, which entail multivisceral resections in up to 12%²⁻⁶.

When performing abdominal wall reconstruction due to oncological lesions, adequate planning is essential to fully recover the functionality of the structure while also ensuring complete resection. However, the extent of the disease at the time of surgery must also be considered. In the event that curative surgery cannot be performed, the indication of a large

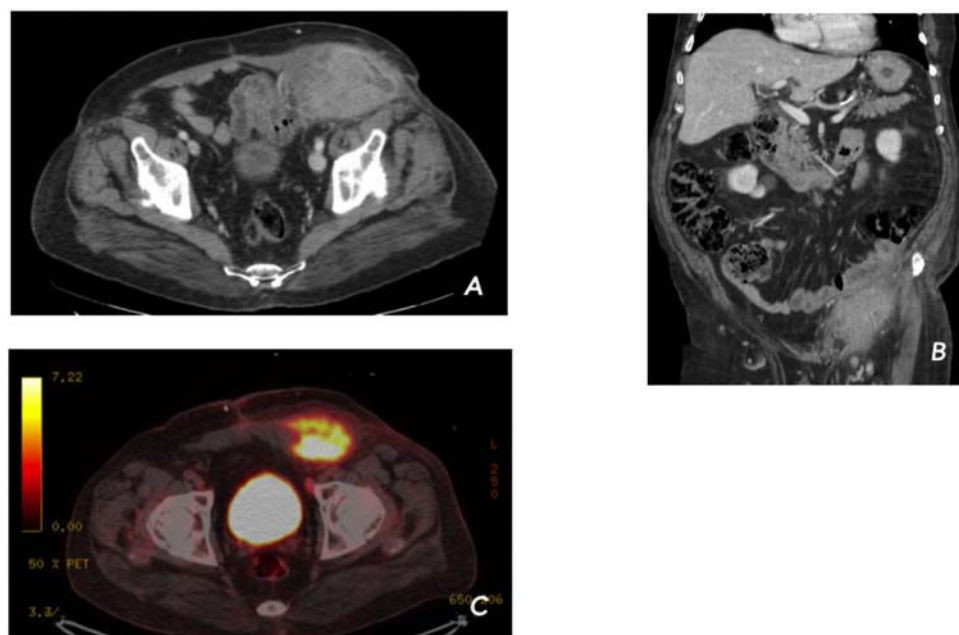


Fig. 1 – CT scan images (A, B) and PET/CT images (C), as described above.

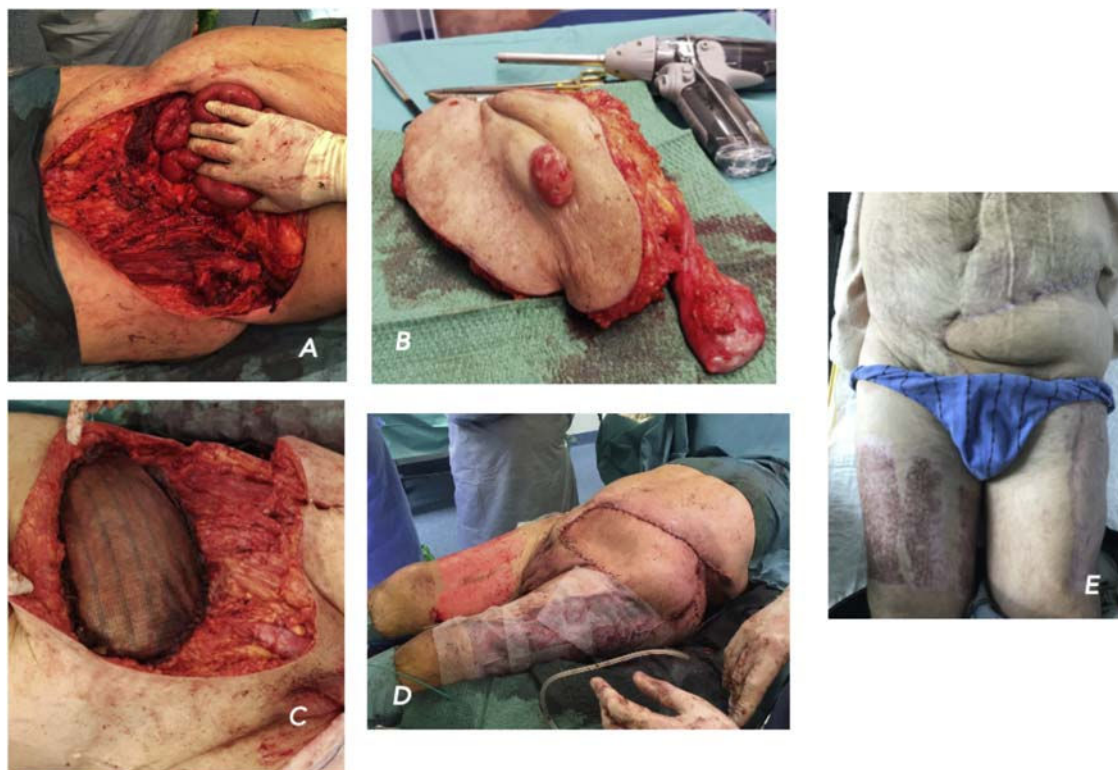


Fig. 2 – Images of the resection and reconstruction (A-D); result one month after surgery (E).

wall resection with reconstruction should be reconsidered when the expected benefit for the patient would be limited²⁻⁶.

During dissection, care should be taken to spare soft tissues and vessels to the greatest extent possible for proper subsequent anchoring of grafts or flaps. In patients with infraumbilical abdominal defects, like ours, the most recommended flap is the ALT type because of its mobilization capacity, as it can be used as a pedicle or free flap^{1,5,8,9}.

Cytoreductive surgery and HIPEC associated with complex wall reconstructions provide for complete cytoreductions (CC-0) but also entail risks. According to the literature, the associated morbidity is 5%-35% and includes incisional hernias, dehiscence of the surgical wound and local infections.

To achieve optimal results in these patients, it is advisable to refer them to specialized medical centers with a greater volume of these pathologies as well as multidisciplinary management to provide optimal surgical treatment.

Conflict of interests

The authors have no conflict of interests to declare.

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<https://doi.org/10.1016/j.cireng.2022.02.004>

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Laparoscopic management of reflux after Roux en Y gastric bypass using technique Hills gastropexy[☆]



Manejo laparoscópico del reflujo gastroesofágico tras bypass gástrico en Y de Roux mediante gastropexia de Hill

Two common ailments in contemporary Western society are gastroesophageal reflux disease (GERD) and morbid obesity (MO)¹. Despite the many parallels between their epidemiology and presumed etiology, the correlation between the 2 processes remains incomplete¹. There is an association between central obesity and the prevalence of GERD, as studies have shown that the gastric pressure, gastroesophageal pressure gradient and incidence of hiatal hernia are high in these patients². Roux-en-Y gastric bypass (RYGB) is considered the gold standard surgical treatment for patients with MO and GERD¹⁻⁴. The latter occurs in 70% of patients who are candidates for bariatric surgery, and its resolution is estimated at between 85% and 90%⁴, regardless of the weight loss obtained⁵.

We present an unusual clinical case of a patient with coexisting MO and GERD, whose GERD symptoms worsened despite RYGB. A 50-year-old female patient had a personal history of hiatal hernia accompanied by gastroesophageal reflux (Los Angeles grade B peptic esophagitis) and a body mass index (BMI) of 44.6 kg/m². In 2011, she had undergone simplified gastric bypass. The patient's outpatient follow-up was good, with acceptable weight-loss results: 24 months after surgery, BMI was 28 kg/m² and the percentage of excess BMI lost was 75.76%. However, her GERD did not improve and even worsened, despite treatment with high-dose proton pump inhibitors. She developed grade C peptic esophagitis (observed on digestive endoscopy) and a hiatal hernia due to sliding of the gastric stump (observed on barium swallow study) (Fig. 1). Esophageal pH monitoring revealed mixed pathological acid reflux with very severe intensity (DeMeester score: 60.1 points), and manometry was anodyne. Based on her previous history and complementary studies, we decided to perform laparoscopic Hill's gastropexy (Fig. 2). We released the adhesions of the omentum to the esophagogastric junction.

After dissection of both crura and exposure of the esophagus, both were closed with two 2/0 silk sutures. Subsequently, we affixed the lesser curvature to the preaortic fascia using 2/0 silk sutures. The postoperative period was uneventful, and the patient was discharged from the hospital with subsequent outpatient follow-up. Currently, 24 months after surgery, the patient remains asymptomatic, showing no signs of reflux during the follow-up barium swallow study or pH monitoring (DeMeester score 13.8 points). In addition, no esophagitis lesions were found during follow-up endoscopy.

RYGB is currently the most frequently advocated bariatric technique for patients with MO who are candidates for bariatric surgery with GERD¹⁻⁴. Few cases have been described of patients presenting worsened GERD symptoms after this technique⁶. When this occurs, the surgical possibilities are limited to infrequently used techniques. Based on the classic description by Hill⁷ and on other studies comparing different antireflux techniques⁸, our group has incorporated Hill's gastropexy in patients with MO and GERD after RYGB. Hill's gastropexy does not seek to create a valvular mechanism, but rather ensures that the lower esophageal sphincter remains below the diaphragm by affixing the lesser curvature to the preaortic fascia⁸. The laparoscopic Hill repair has demonstrated excellent long-term durability, and 85% of results are 'good' to 'excellent', with a median follow-up of 19 years and a reoperation rate of less than 10%⁹. Recently, Sanchez Pernaute et al.¹⁰ have shown good results with this technique in patients with MO and GERD who were candidates for laparoscopic sleeve gastrectomy. Despite being a technique that has fallen into disuse today, it is a technical resource to consider when the gold standard techniques cannot be carried out, as it is a simple technique that is not associated with increased postoperative complications.

[☆] Please cite this article as: Estébanez-Ferrero B, Torres-Fernández R, Ferrer-Márquez M, Sánchez-Fuentes P, Vidaña-Márquez E. Manejo laparoscópico del reflujo gastroesofágico tras bypass gástrico en Y de Roux mediante gastropexia de Hill. Cir Esp. 2020. <https://doi.org/10.1016/j.cireng.2020.10.018>