

Totally Laparoscopic Total Gastrectomy with Oesophagus-Duodenal Interposition of a Pedicled Jejunal Flap in a Patient with Familial Adenomatous Polyposis (with video)

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Abstract

Introduction: Several interposition techniques have been described for reconstruction after total gastrectomy in FAP patients, in open (1) and laparoscopic assisted surgery (2,3,4). The Longmire technique has the advantage of allowing all the food to pass through the duodenum and better absorption of nutrients, such as iron (5). Here, we describe the use of a pedicled isoperistaltic jejunal flap interposition technique to reconstruct the digestive tract after total gastrectomy, fully performed by laparoscopic approach, in a patient with FAP that had previous total colectomy. Our patient was a 68-year-old woman, with “MUTYH-Associated Polyposis (MAP)”, a c.494A>G mutation at exon 7 and c.1145G>A mutation at exon 13. She was diagnosed with gastric cancer and lesions of high- and low-grade dysplasia. She was previously submitted to a laparoscopic total colectomy, 2009, and a conservative breast surgery plus chemoradiotherapy in 2017. She also had duodenal and rectum polyps in her surveillance exam.

Surgical technique: Five access ports were used. We performed a standard total gastrectomy with D2 lymphadenectomy. The reconstructive phase of the surgery started with the selection of a jejunal loop, 50 cm after the Treitz ligament, which was sectioned, in order to enable an oesophagojejunal anastomosis. The jejunal loop was connected to the duodenum through a side-to-side anastomosis with a linear endo stapler. This created an isoperistaltic conduit with the required extension for a tension-free anastomosis. Afterwards, the jejunal loop was sectioned immediately distally to the jejunoduodenal anastomosis and digestive continuity was restored with a side-to-side jejunojejunal anastomosis. Operative time was 4 hours and 7 minutes. Blood loss was less than 150 mL. No intraoperative or postoperative complications occurred. The patient was discharged on the seventh post-operative day. She has been on follow-up as an outpatient for seven months, without any relevant symptoms.

Conclusion: We hereby describe a technique that has been previously used by others with good results, but with the novel contribution of performing the surgery entirely by laparoscopy.

Key words: total gastrectomy, jejunal flap, interposition