COLO-RECTUM MECHANICAL INTRACORPOREAL ANASTOMOSIS, ASSISTED BY ROBOT: SURGICAL TECHNIQUE.

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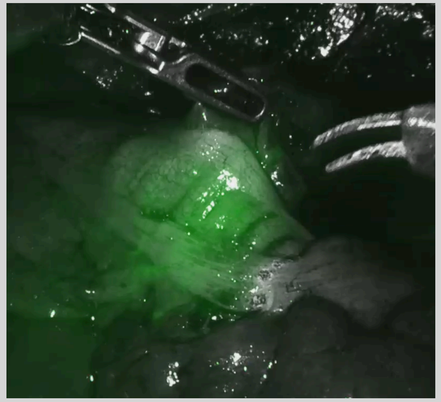
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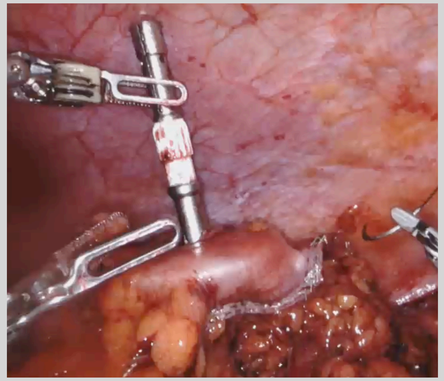
Background

Robot-assisted surgery has innovated laparoscopic surgical technique, it allows new surgical procedures to be performed, offering some benefits as lower infection of surgical wound, less hospital stay length and post incisional hernia. In colorectal surgery, robot assisted surgery has shown different resources or applications for a safer anastomosis, achieving better results while performing procedures. For intracorporeal anastomosis, robotic surgery has shown a positive impact on the post-surgical evolution of the patients, reducing associated complications such as surgical site infection, incisional hernia and prolonged hospital stay. When a colorectal anastomosis is planned, generally there is an extracorporeal surgical time, requiring the exteriorization of intestine through Pfannestiel incision for anvil placement.

Surgical technique

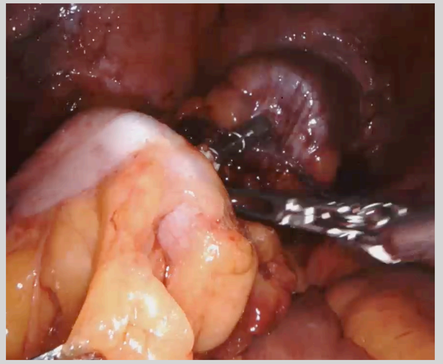
All patients underwent a left colectomy with a standardized technique. Four trocars are placed (one subxiphoid and three right laterals). The dissection begins with an approach from medial to lateral for sigmoid and rectal superior vessels identification and ligation. Indocyanine Green is used for delimitation of vascularized tissue, a mark at the transition line is placed.

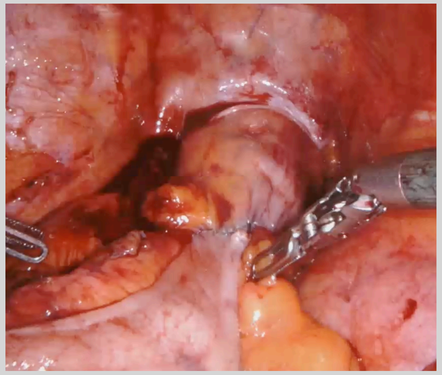




2 cm bellow transition line we perform a colotomy incision at the anti-mesenteric border of the colon for anvil insertion. We exteriorize anvils sting 2 cm over transition line in vascularized tissue. After anvil placement we proceed to close the incision of anvil placement with 3-0 V-loc. A pouch around anvils sting is made with 3-0 prolene. We proceed to transect the colon at the site of the mark and distally at the recto-sigmoid junction, both with linear stapler.

Trans anally we introduce the circular stapler, then the totally intracorporeal lateral-terminal colorectal anastomosis is performed. To exteriorize the transected colon an incision enlargement is made (maximum 5cm), a wound protector (alexis) is placed. With this final step we avoid the making of a Pfannenstiel-type incision. Pneumatic testing with flexible rectosigmoidoscopy is performed to rule out leaks.





Discussion

Robot assisted colorectal surgery offers the option to perform a totally intracorporeal lateral-terminal colorectal anastomosis. This technique can be reproducible and safe, with good postoperative results, reducing intraoperative complications of an extracorporeal anastomosis (traction of the mesocolon, bleeding) as well as a reduction in postoperative complications.

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