

Technical advantage using curved stapler in narrow pelvis for TME in laparoscopic surgery for rectal cancer

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SUMMARY: Technical advantage using curved stapler in narrow pelvis for TME in laparoscopic surgery for rectal cancer.

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Rectal transection is often difficult in laparoscopic TME and requires several cartridges. The use of a curved stapler permits, with its single cartridge, a more safe closure of the rectal stump.

KEY WORDS: rectal cancer, TME, curved stapler, laparoscopy.

Introduction

Laparoscopic (LPS) surgery for rectal cancer is very difficult from a technical standpoint. Intracorporeal rectal transection requires a number of cartridges significantly increased and this may be responsible for a higher anastomotic leakage rate (5.7%-21%) that justifies some authors to recommend a covering ileostomy as a routine in LPS low anterior resection. The aim of the video is to show the feasibility of LPS intracorporeal rectal transection using a curved cutter stapler introduced through a transverse sovrapubic 5-cm incision. This permits the use of a single cartridge, consenting a more safe closure of rectal stump.

Methods

Initial port placement is performed using the open technique and pneumoperitoneum is induced by CO₂. Five ports are then inserted (four 5-mm and one 10-mm) under LPS guidance. A window is made be-

tween the mesocolon containing the arch of the inferior mesenteric vessels and the superior hypogastric nerve plexus. Ligation of the inferior mesenteric artery was then performed with respect to superior hypogastric plexus and left ureter. Mobilization of left colon and splenic flexure is then performed. The LPS procedure continues with mobilization of the rectum and mesorectum by sharp dissection and extended down to the level of the levator muscle. Before rectal transection we perform a 4.5-cm incision in the sovrapubic space protecting the wound. Through this incision we introduce a curved cutter stapler and under LPS guidance we transect the rectum by a unique cartridge. Now pneumoperitoneum is not required. The bowel is then exteriorised and divided completing low anterior resection. The procedure continues traditionally with the suture of the incision after inserting the anvil head of the circular stapler into the end of the proximal colon. Pneumoperitoneum is induced and anastomosis performed by a really "double"-stapled technique.

Conclusion

The safety of LPS rectal transection using an endoliner stapler is one of the most technically difficult procedures in LPS low anterior resection. LPS intracorporeal rectal transection can be safely performed by introducing a curved stapler through a transverse sovrapubic incision resolving the technical difficulties related to the use of an endoliner stapler and permitting to perform a really "double"-stapling anastomosis.