



3-Dimensional Laparoscopic Rectal Anterior Resection With Transanal Specimen Extraction For Rectal Prolapse

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TEACHING POINT

In this article, we show 3-dimensional laparoscopic natural orifice specimen extraction surgery (NOSES) for rectal prolapse. We demonstrate the key steps of the procedure, along with related technical points, to provide a technical demonstration for the surgical treatment of progressive, reducible rectal prolapse. We believe that this article is valuable for all the researchers and surgeons who are interested in rectal prolapse.

1. Preoperative examination: physical examination, magnetic resonance imaging, and colonoscope.
2. Operation position: patient needs to be placed in a lithotomy position with head down tilt and left tilt. Legs need to be placed to the same plane of the body. Surgeon stands on the left side of patient and assistant stands oppositely. The camera holder stands on the left side of the patient's head. Monitor is placed in front of patient between legs.
3. Port placement: 5-trocar method.
4. Surgical procedure.
 - Mobilize the redundant sigmoid colon and rectum.
 - Open the Douglas pouch and both sides of peritoneum around rectum. Do not perform further dissection, and protect the pelvic nerve.

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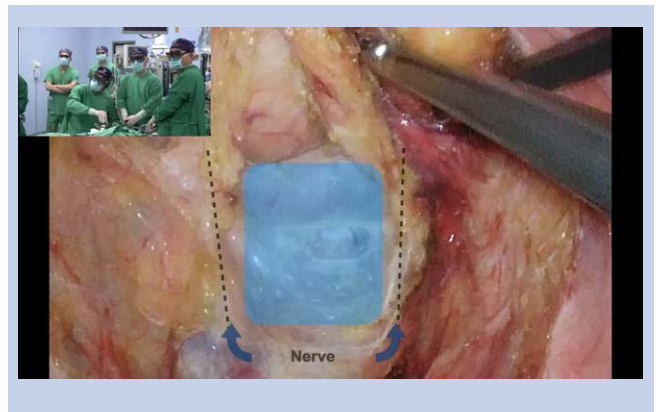
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KEY IMAGE



- Fully dissect the posterior rectal space to hiatal ligament.
 - Remove redundant peritoneum.
 - Tie the distal rectum and flush the distal rectal lumen.
 - Transect redundant sigmoid colon and rectum.
 - Remove specimen by establishing a clean tunnel with plastic sleeve through the distal rectum and anus, and put the anvil into abdomen.
 - Place the anvil into proximal colon and tie colon at the base with an endoloop.
 - Perform anastomosis and closure.
 - Rebuild pelvic floor.
5. Potential complications: abdominal infection, anastomotic fistula, and nerve dysfunction.

VIDEO SUMMARY

This video demonstrates that it is important to fully mobilize the redundant peritoneum. Do not further dissect when opening both sides of peritoneum around rectum. Posterior rectal space should be dissected deeply. Finally, it is significant to rebuild pelvic floor.



See video on the DCR YouTube Channel at <https://youtu.be/qbi9oBAQjd4>