

Transvaginal Natural Orifice Specimen Extraction: A 10-step Approach for Laparoscopic Excision of Deep Endometriosis Infiltrating the Rectosigmoid

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OBJECTIVE

The objective of this surgical tutorial is to present a 10 step systematic approach for transvaginal natural orifice specimen extraction (NOSE) approach in cases of deep infiltrating endometriosis of the rectosigmoid [Figure 1].^[1-3]

DESIGN

Video footage highlights a transvaginal NOSE technique in a 35-year-old female who was transferred to our tertiary endometriosis center due to a long-standing history of chronic pelvic pain, dyspareunia, and dysmenorrhea. Patient consent was obtained, and IRB approval was exempted according to institutional protocol.

INTERVENTION

A preoperative magnetic resonance imaging revealed a rectosigmoid nodule measuring 6 cm × 3.5 cm approximately 12 cm from the anal verge. Conventional laparoscopy was performed; complete obliteration of the posterior *cul-de-sac* and severe disease involving the left lateral compartment was noted. The following 10-step approach was followed in a systematic fashion:

1. Dissection of the lateral border of the rectosigmoid using a lateral-to-medial approach to secure the ureter and vessels at its origin [Video 1]

2. Dissection of the anterior border of the rectosigmoid from the posterior aspect of the uterus [Video 1]^[4]
3. Dissection of the posterior border of the rectosigmoid and opening the medial pararectal spaces with attention to spare the hypogastric nerves [Video 2]^[5]
4. A hysterectomy is then performed as per routine [Video 2]
5. Adequate bowel mobilization and preparation to ensure anastomosis are being performed under no tension [Video 2]
6. Transection of the bowel distal to the lesion using a linear stapler [Video 2]^[6]
7. Transvaginal extraction of the bowel segment and introducing the anvil [Video 2]^[7]
8. Transection of the bowel proximal to the lesion using a linear stapler, and the anvil is pulled through a colotomy
9. Reanastomosis using a circular stapler [Video 2]^[8]
10. A water leak test is performed to confirm the integrity of the anastomosis [Video 2].

The postoperative period was uneventful, and the patient was discharged on postoperative day 5.

CONCLUSION

In patients requiring hysterectomy, segmental resection through a transvaginal (NOSE) approach is safe and feasible. In this tutorial, we describe a reproducible 10-step approach that can be used by surgeons to perform this technique.

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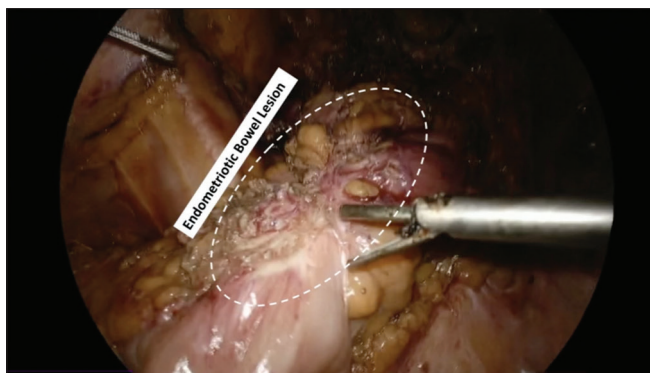


Figure 1: Rectosigmoid endometriosis Video 1: <http://www.apagemit.com/page/video/show.aspx?num=317&kind=2&page=1>
Video 2: <http://www.apagemit.com/page/video/show.aspx?num=318&kind=2&page=1>

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patients have given their consent for their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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