



TAKING S**** SERIOUSLY SINCE 1835

ROBOTIC SURGERY IN DEEP INFILTRATING ENDOMETRIOSIS: THE ROLE OF THE COLORECTAL SURGEON

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Disclosures Danilo Miskovic

Proctor for Intuitive Surgery (since 2018)
Consultancy work for Proximie (2022)

Let's debunk some myths...!

MYTH NO. 1:

Endometriosis is just heavy period pain

COMMON SYMPTOMS- DEEP INFILTRATING ENDOMETRIOSIS (DIE)

- Pelvic pain and dysmenorrhea (painful menstruation) 80%
- Dyspareunia (painful intercourse) 45%
- Chronic pain (outside of periods) 40%
- Dyschezia (painful bowel movements) 30%
also bloating, diarrhoea, constipation
- Infertility 25%
- Urinary symptoms 1-3%

MYTH NO. 2:

Endometriosis is a 'Western' disease

10 % of all women in reproductive age (190 mio worldwide)



Across all socioeconomic and geographical borders

SIGNIFICANT BIAS IN HEALTHCARE ACCESS

- Ethnic and racial disparities
- Geographic limitations
- Socioeconomic barriers
- Cultural stigma and lack of awareness
- Research funding gap



MYTH NO. 3:

“Some of these women are a bit crazy...”

More mental health issues (anxiety, depression)
Average time from onset of symptoms to diagnosis: 6-7 years
Pain levels do not correlate with disease burden



When does the colorectal surgeon get involved?

DEEP INFILTRATING ENDOMETRIOSIS

20% of women with disease

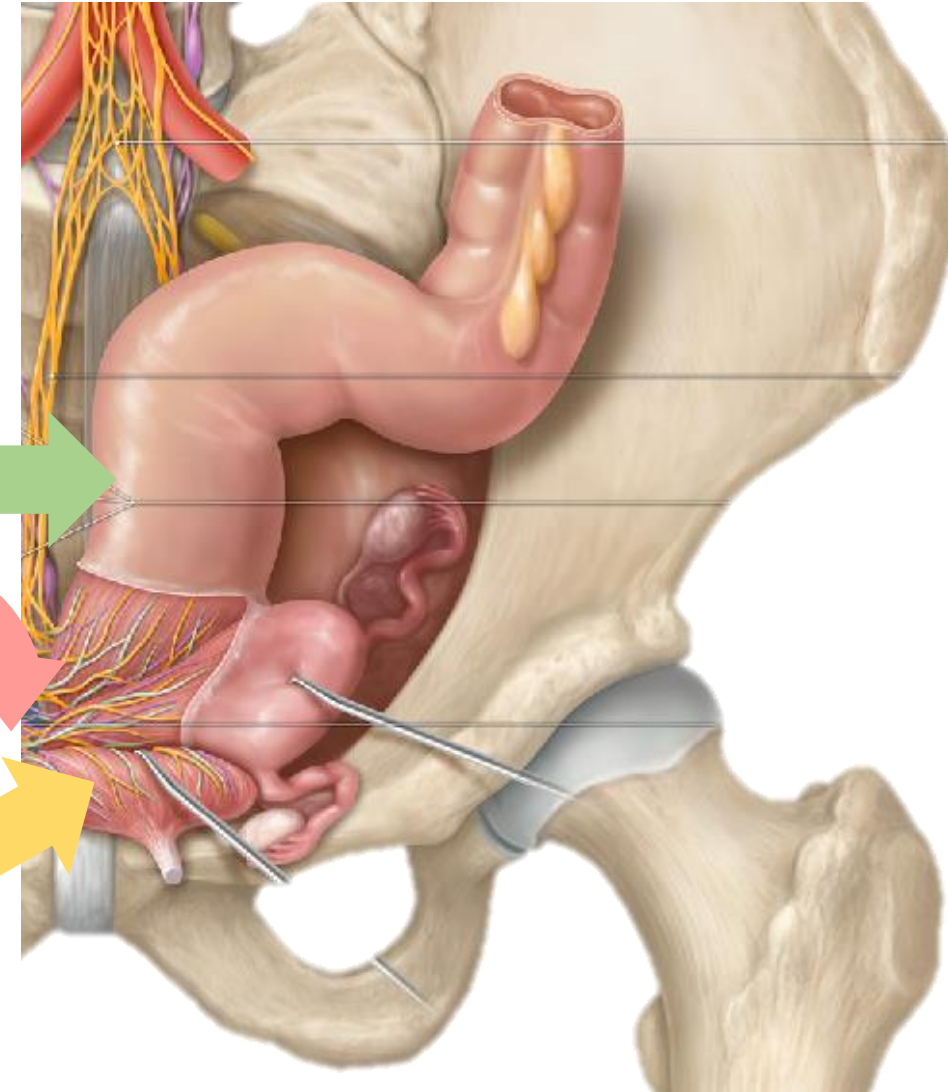
New definition: any endometrium-like tissue on or beneath peritoneal surface

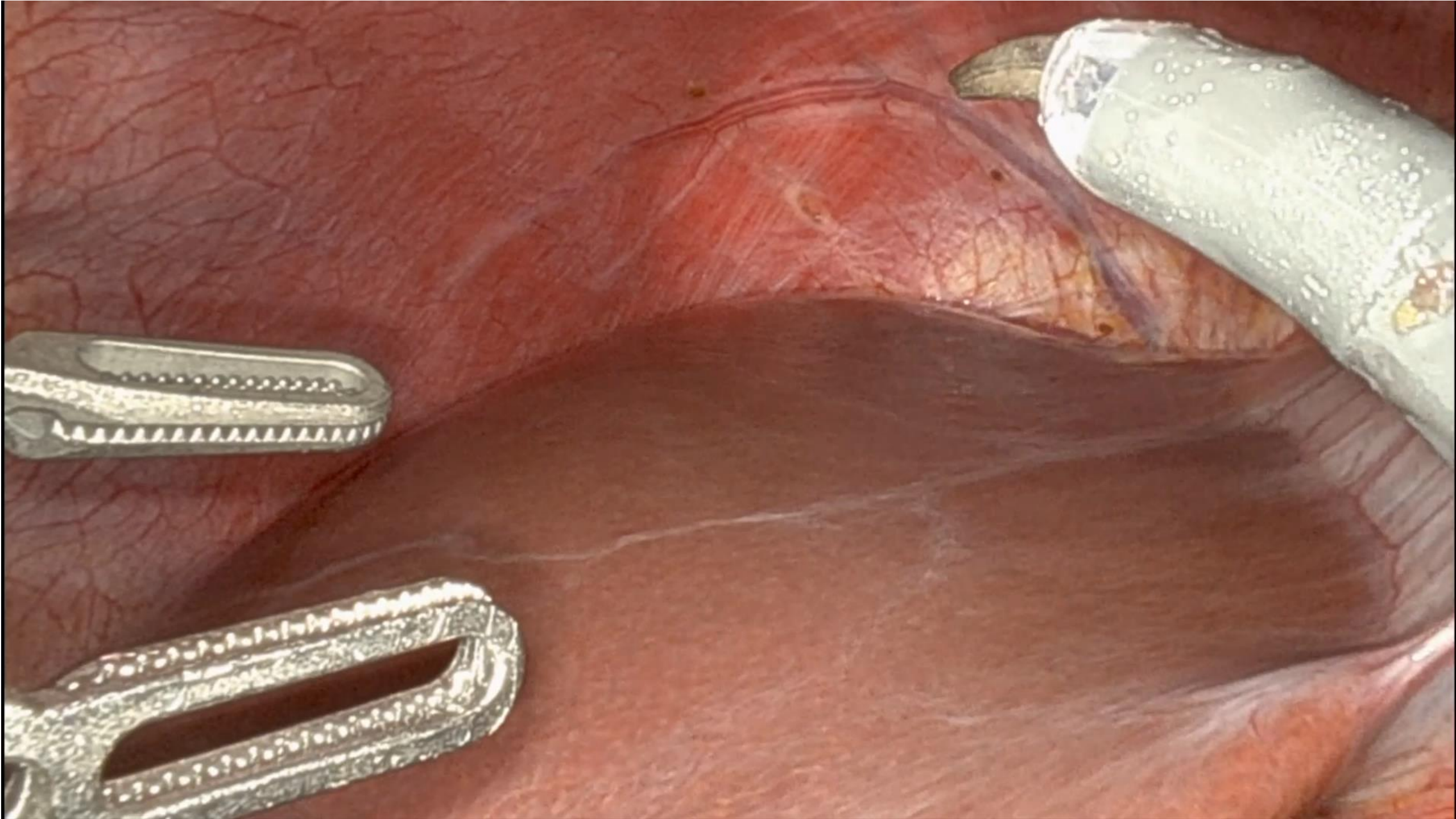
37%

Rectum
Sigmoid colon
Caecum/ Appendix
Small bowel

retro-cervical space
recto-vaginal septum
uterosacral ligaments

Bladder
Ureter





DEEP INFILTRATING ENDOMETRIOSIS

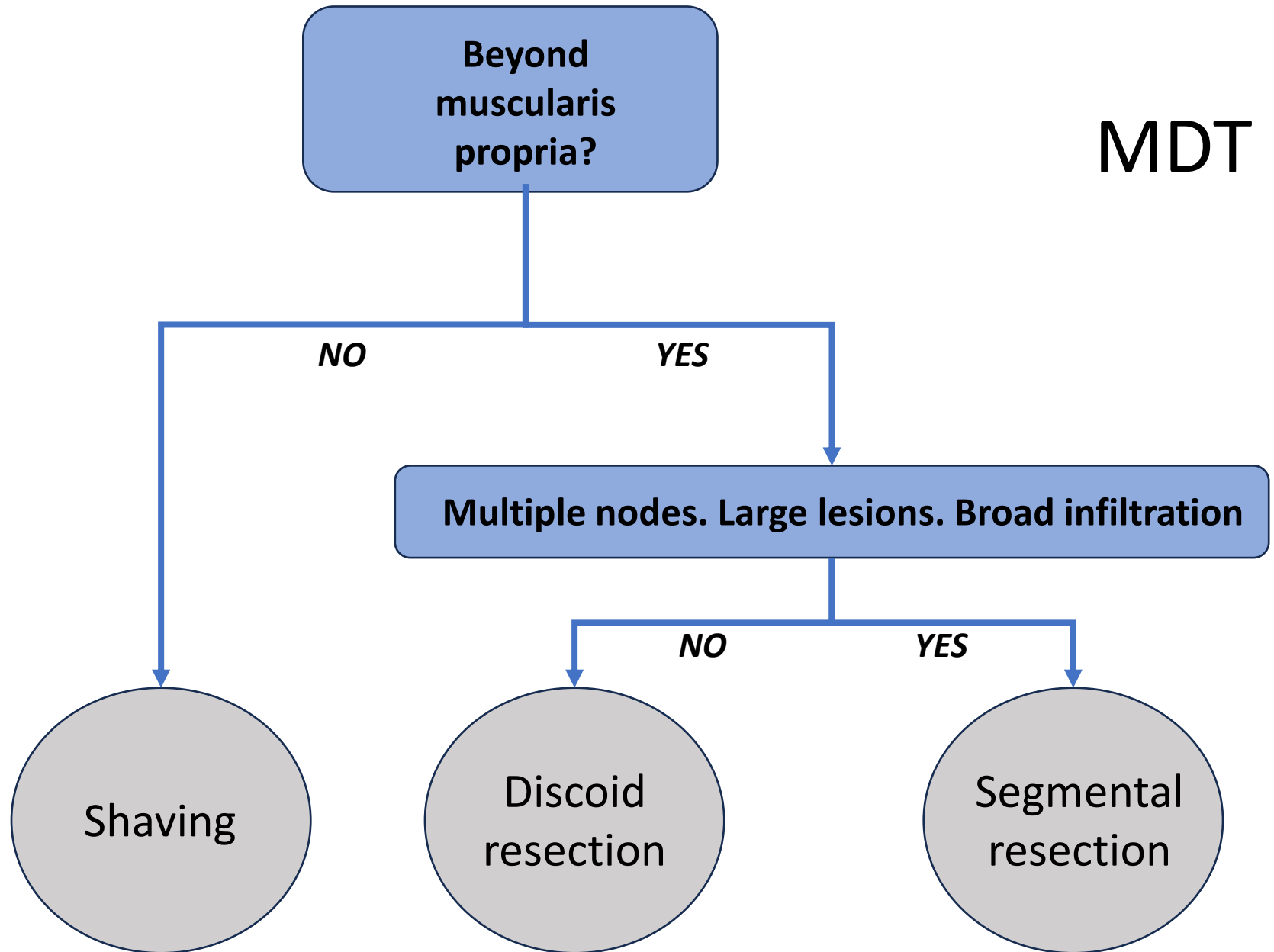
- *Bowel is the most common extragenital site (up to 37%)*
- *Dyschezia, Haematochezia, Diarrhoea, Constipation*

DIAGNOSTIC WORKUP

- *MRI and/or tvUS*
- *Diagnostic laparoscopy*
- *Barium enema??*
- *Colonoscopy/flexible endoscopy??*



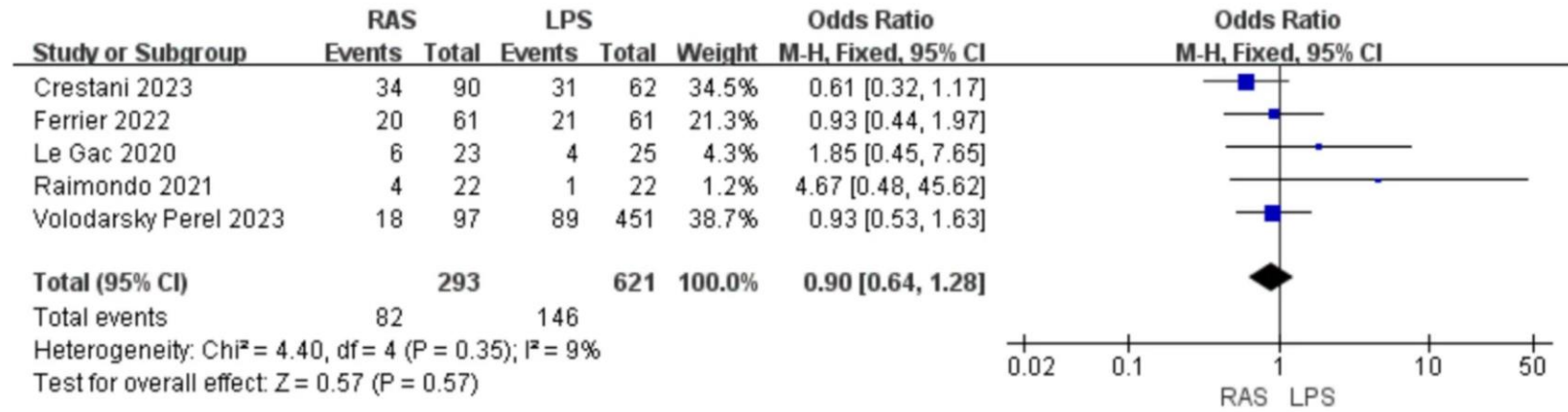
Denis Tsepov FRCOG



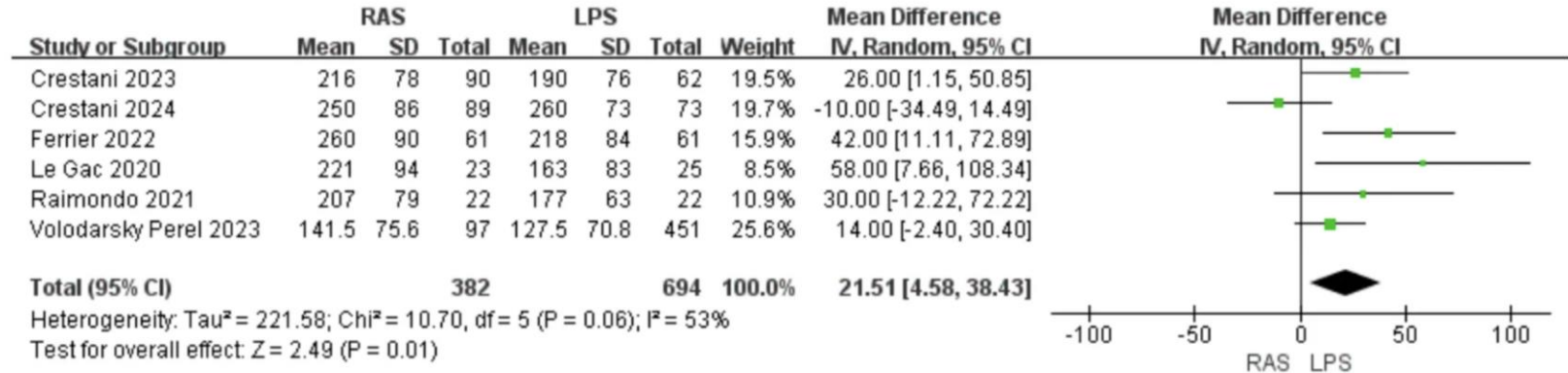
Why to use surgical robots?

WHY ROBOTIC SURGERY

Complications



Operating Time



ROBOTIC SURGERY FOR DIE (n = 68)

Complication rate II-IV	2 (2.3 %)
Recurrence rate	1 (1.5%)
Hospital stay	2 (2-4)
Segmental resection	6 (8.8%)

Improvement in QoL and reduction in cyclical and non-cyclical dyschezia symptoms

ENDOMETRIOSIS WITH INTESTINAL INVOLVEMENT

Shave	48 (70.6%)
Deep shave	11 (16.2%)
Disc resection	3 (4.4%)
Segmental resection	6 (8.8%)

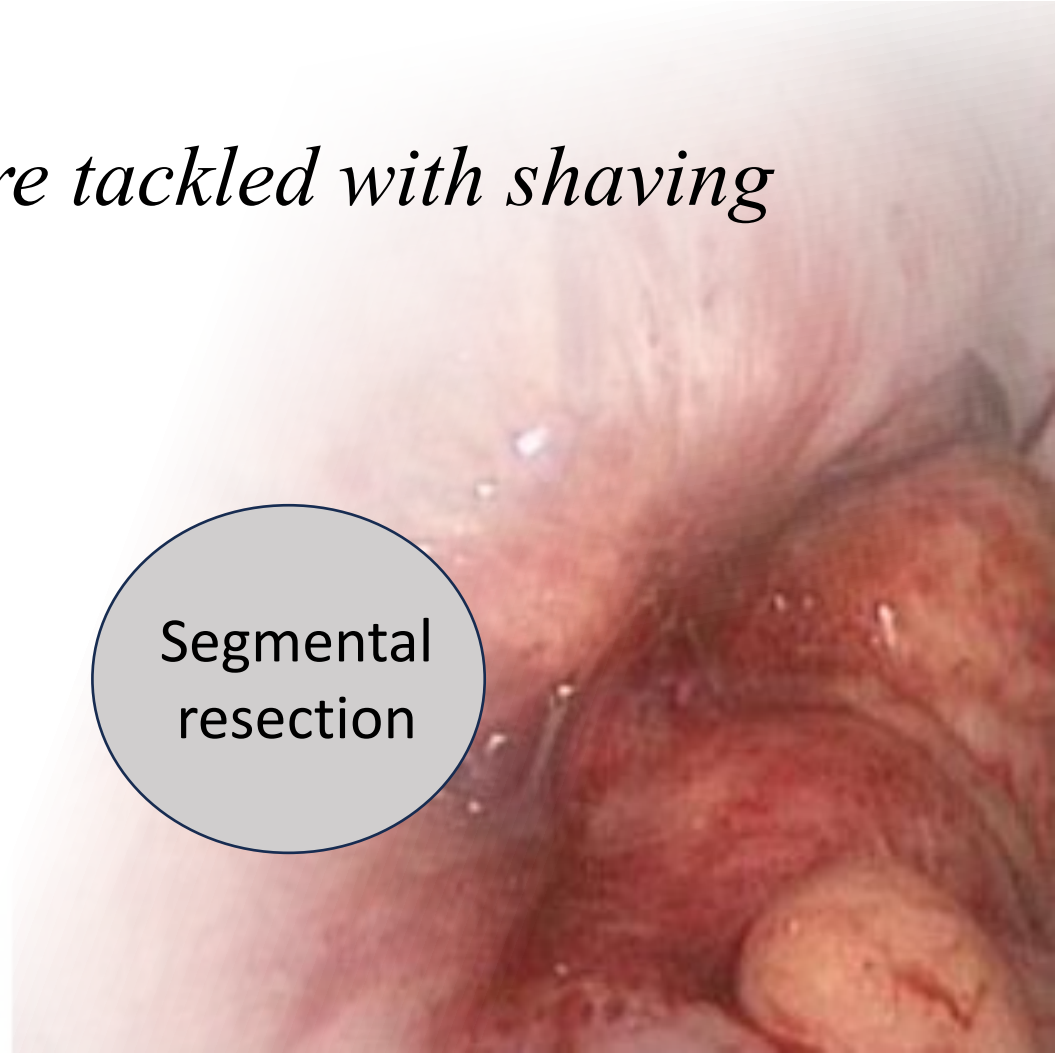
ENDOMETRIOSIS WITH INTESTINAL INVOLVEMENT

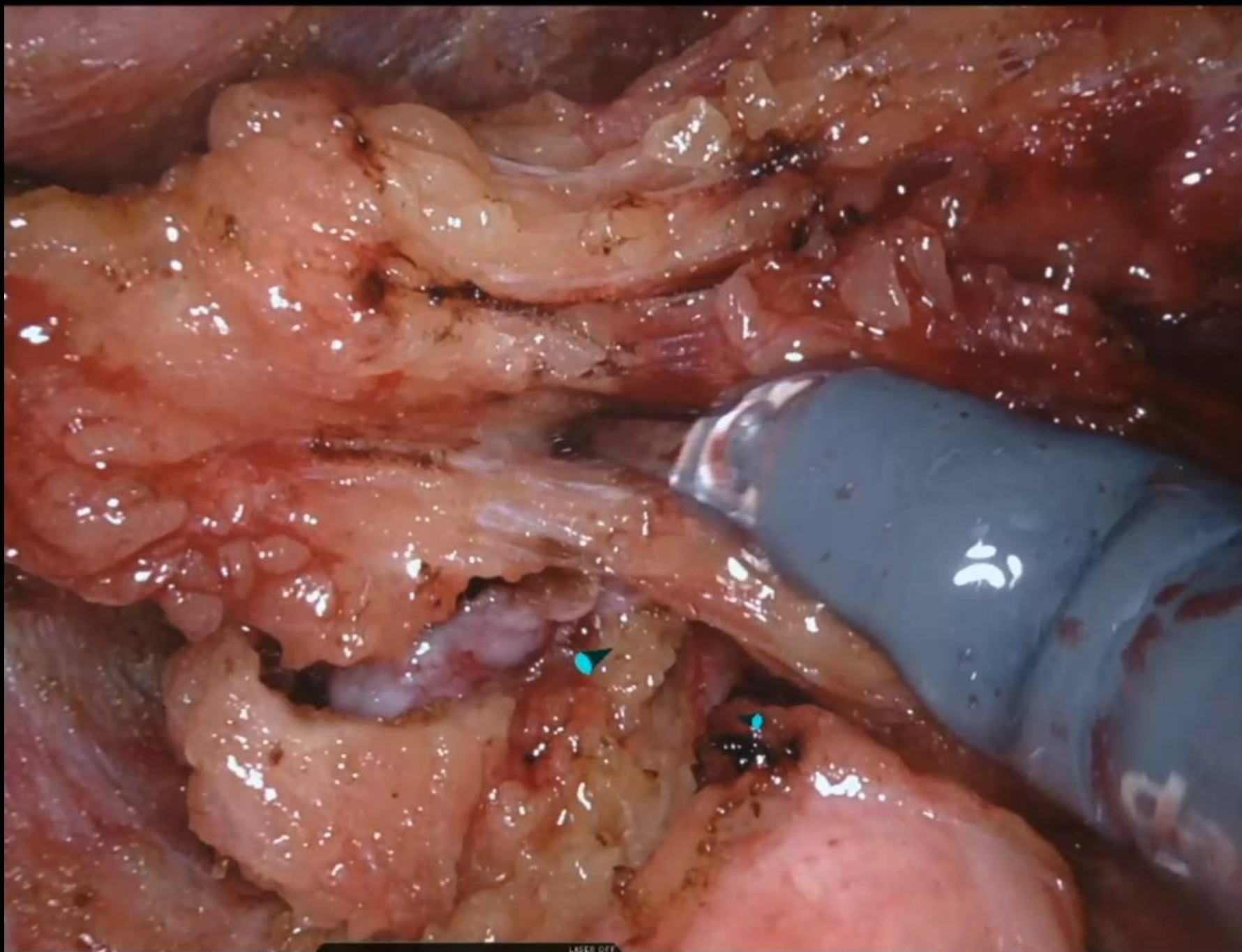
More than 80% of bowel lesions are tackled with shaving

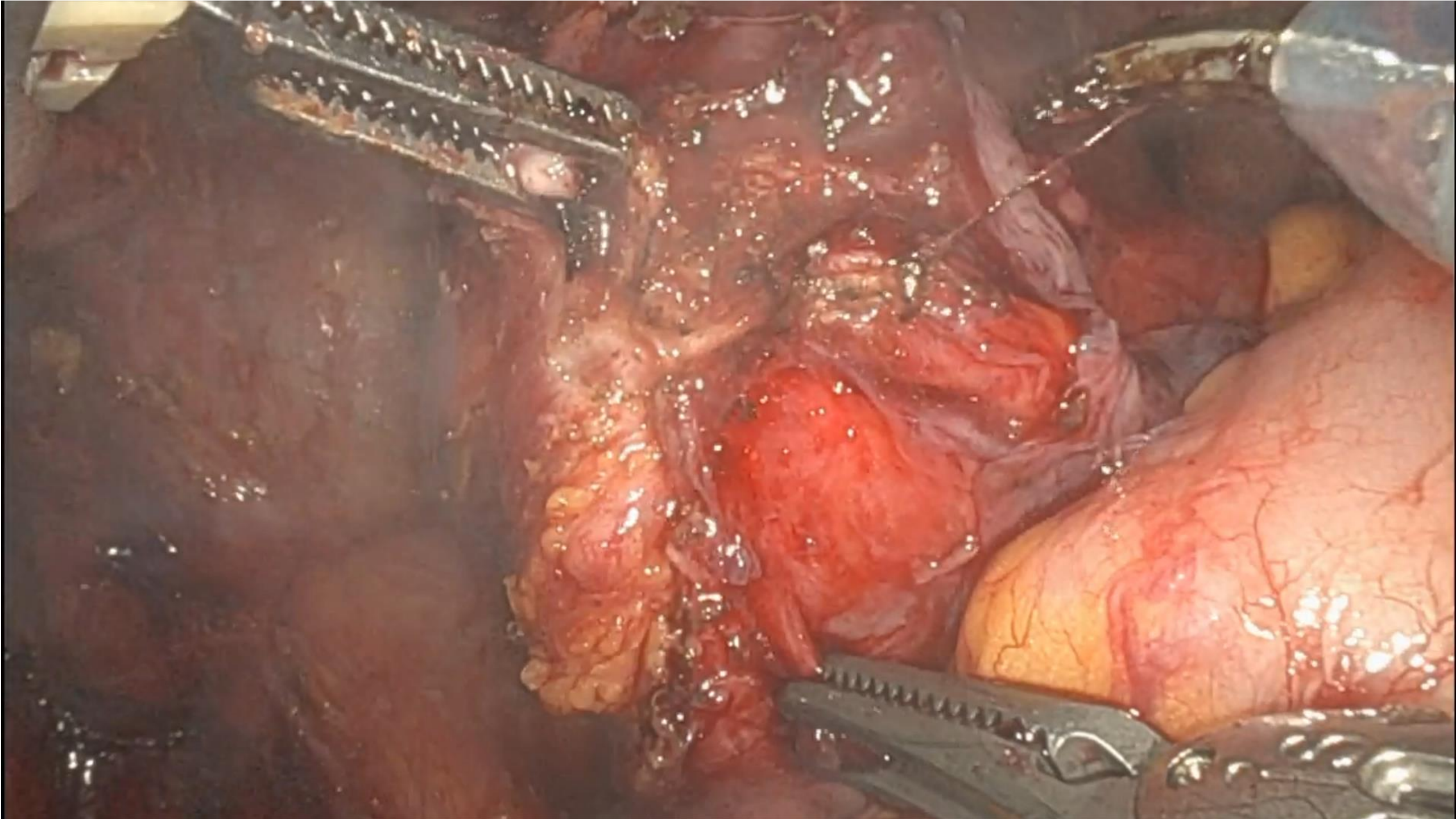
Shaving

Discoid
resection

Segmental
resection







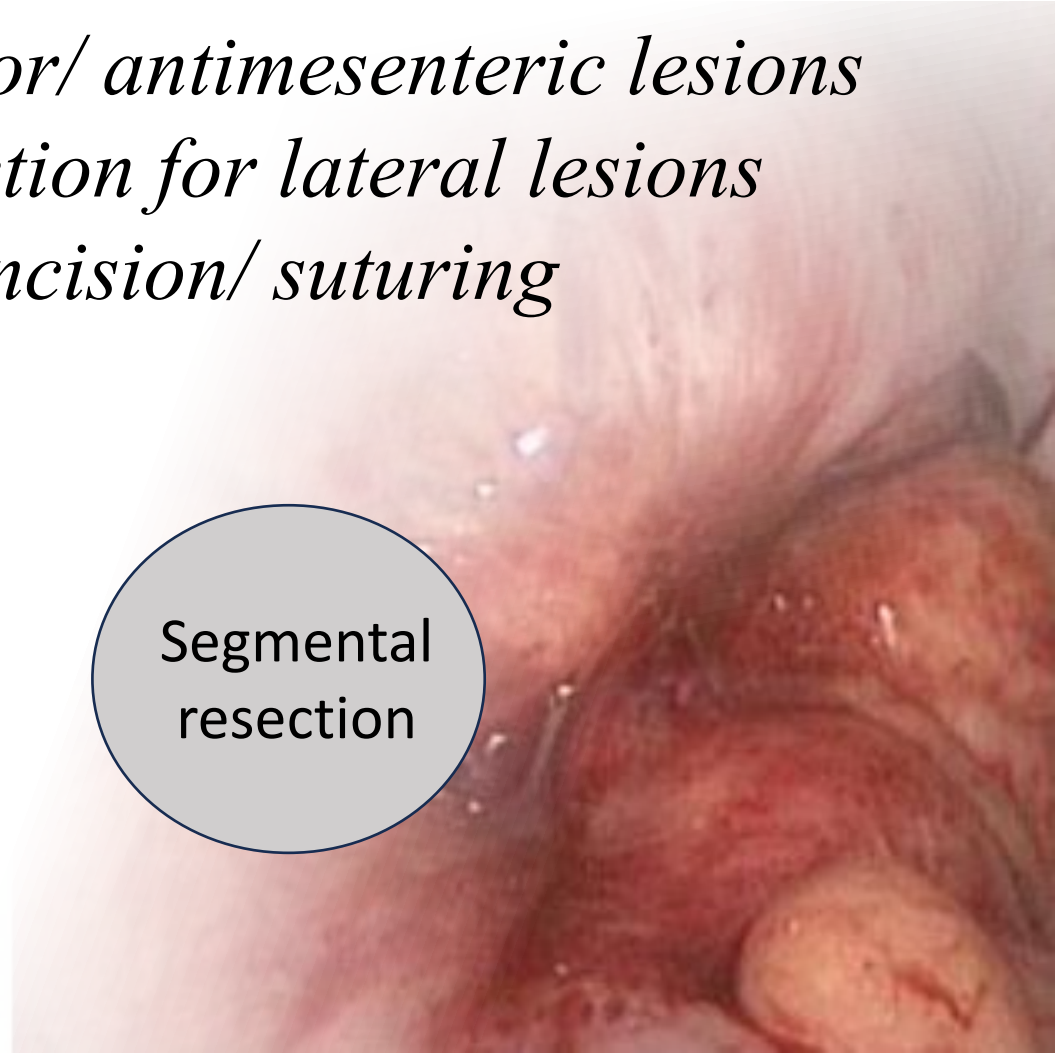
ENDOMETRIOSIS WITH INTESTINAL INVOLVEMENT

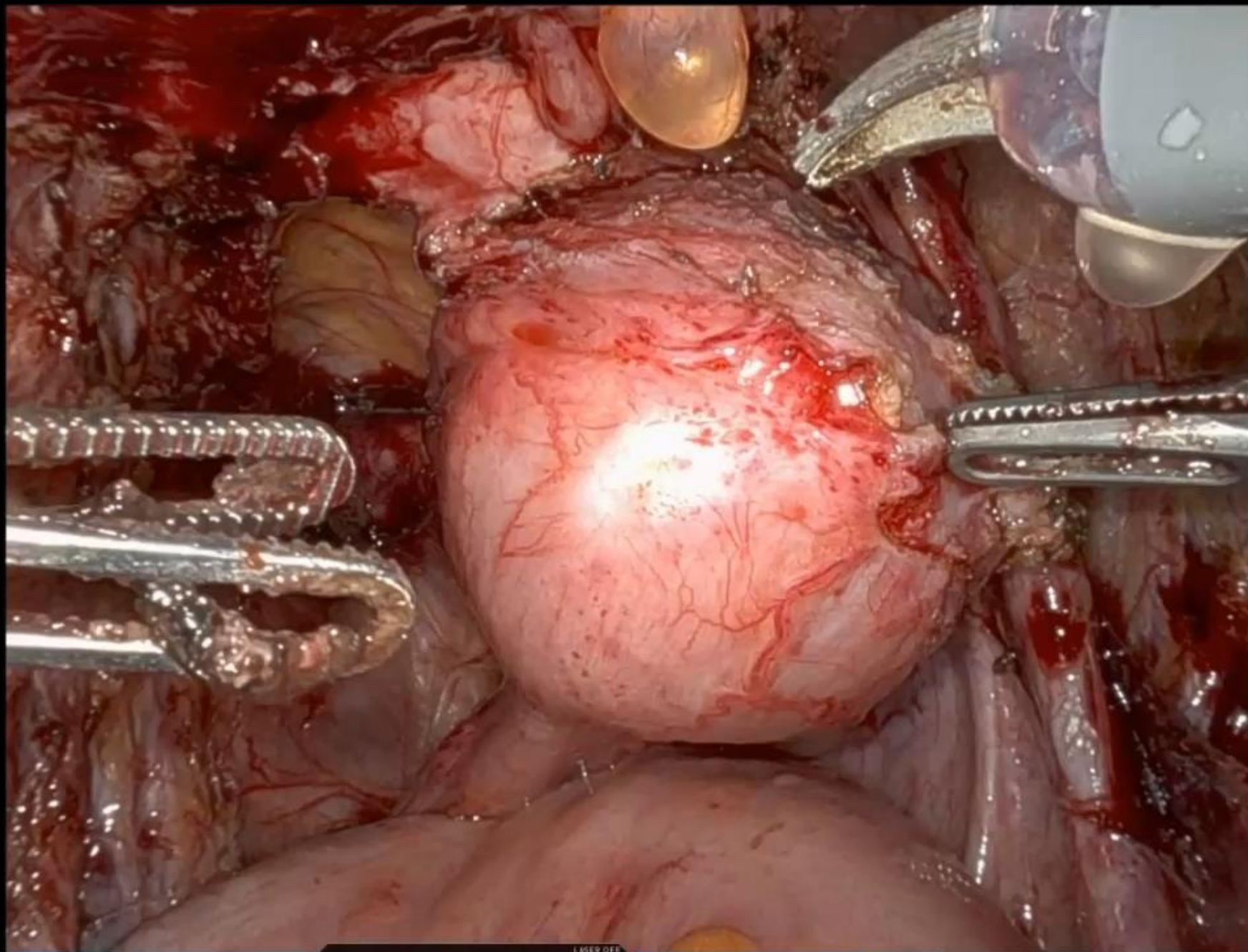
- *Wedge and disc resections of anterior/ antimesenteric lesions*
 - *Deep shaving or segmental resection for lateral lesions*
 - *Stapled disc resection vs. incision/ suturing*

Shaving

Discoid
resection

Segmental
resection





1

FENESTRATED BIPOLAR
FORCEPS

COAG

2



1x 30°
0°

LASER OFF

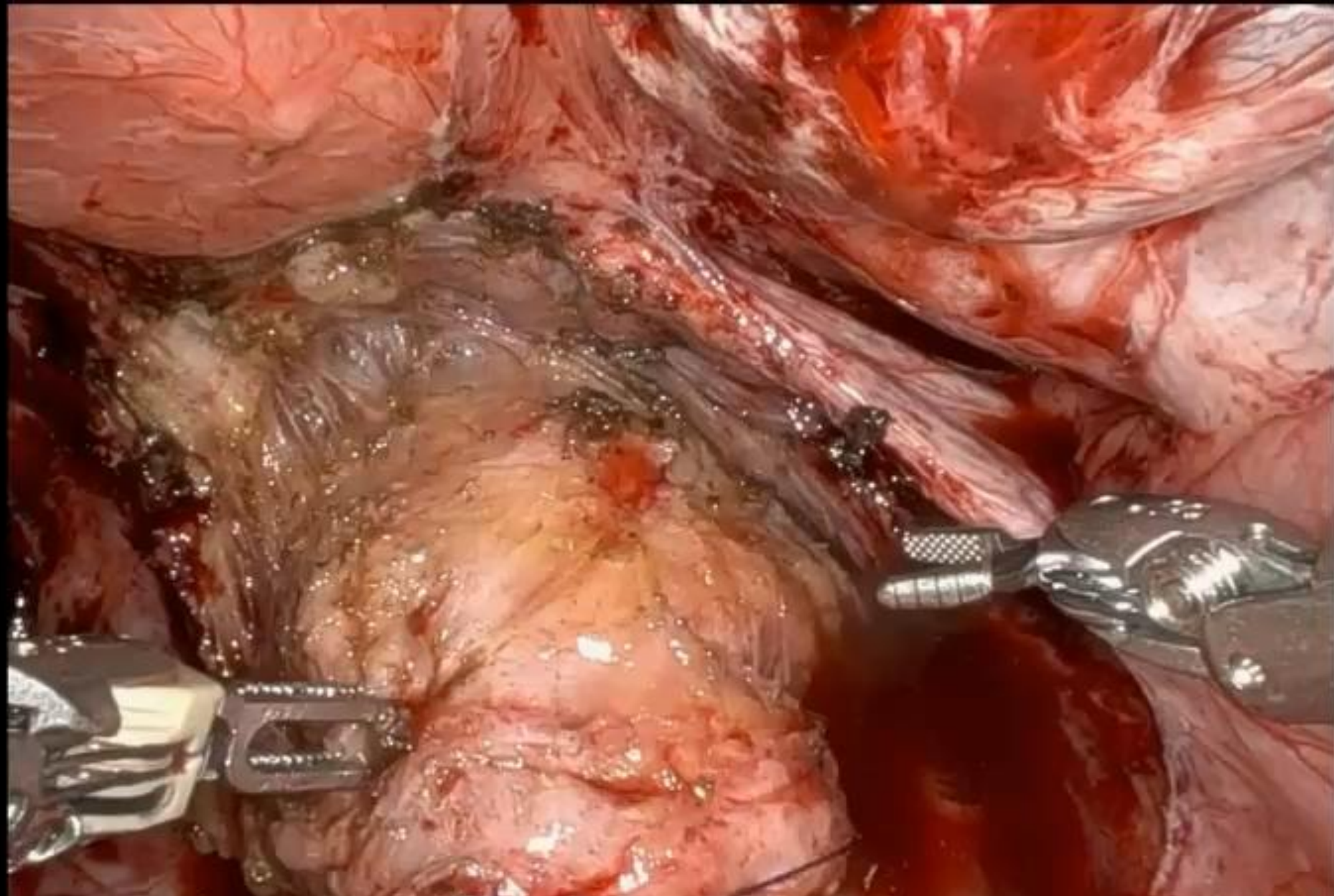
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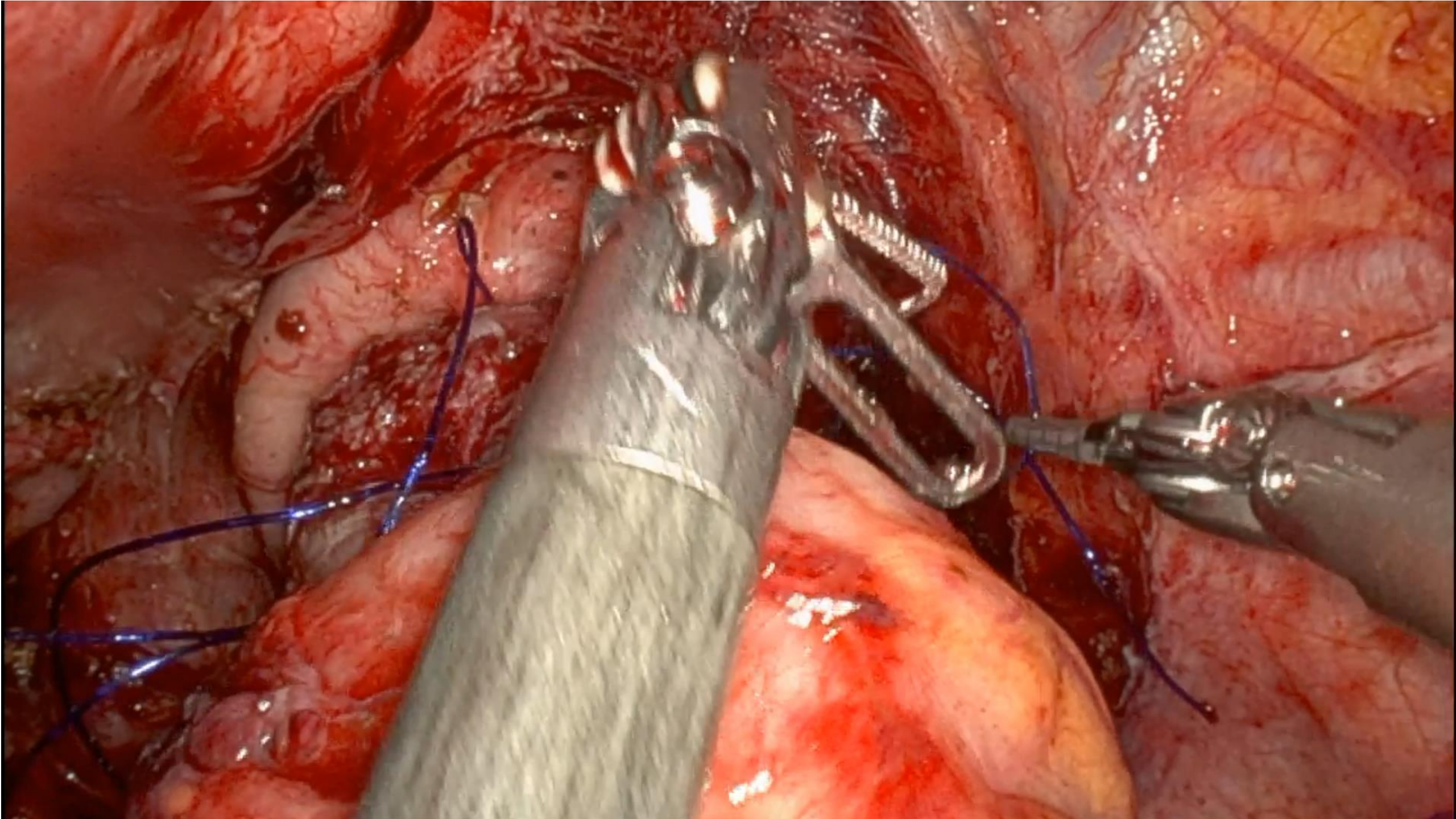
MONOPOLAR CURVED
SCISSORS

CUT
COAG

4

CADIERE FORCEPS





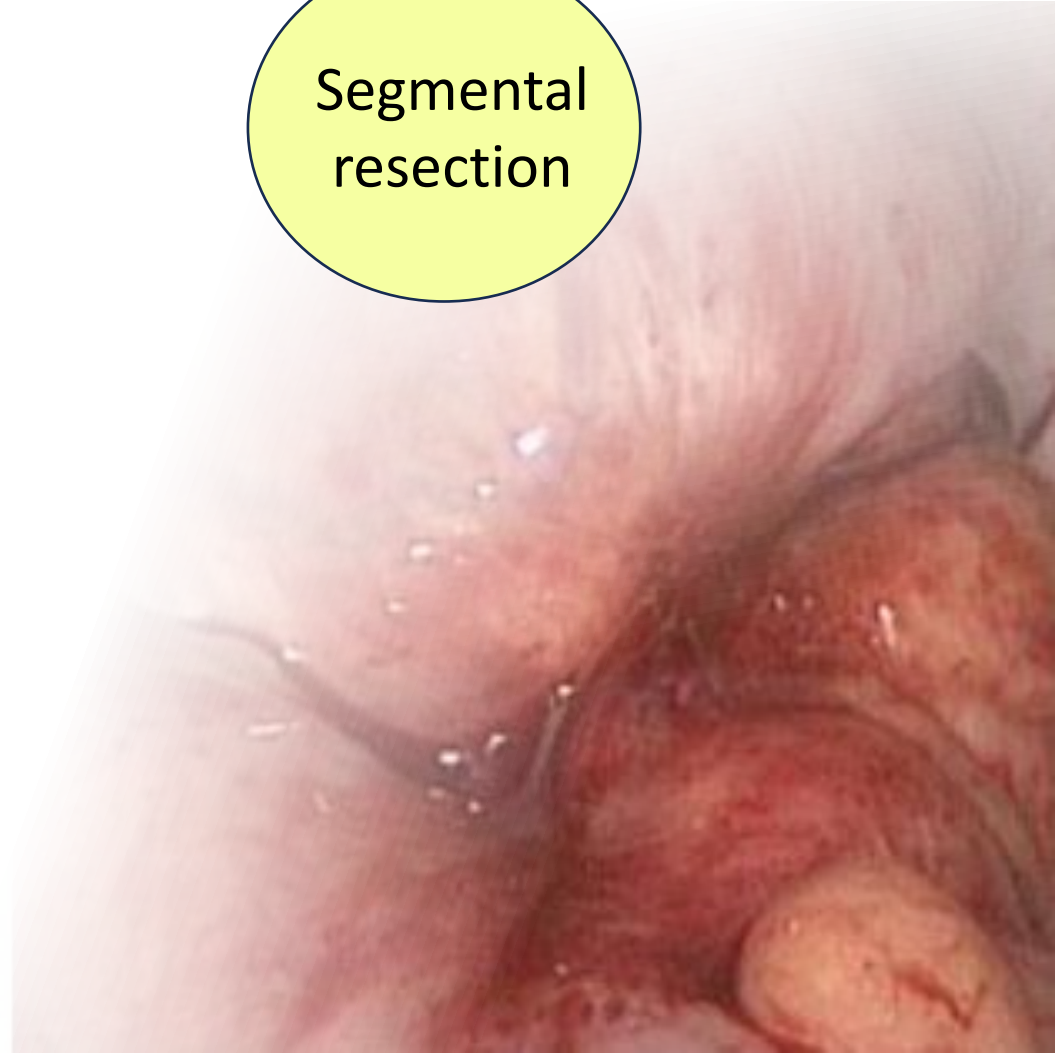
ENDOMETRIOSIS WITH INTESTINAL INVOLVEMENT

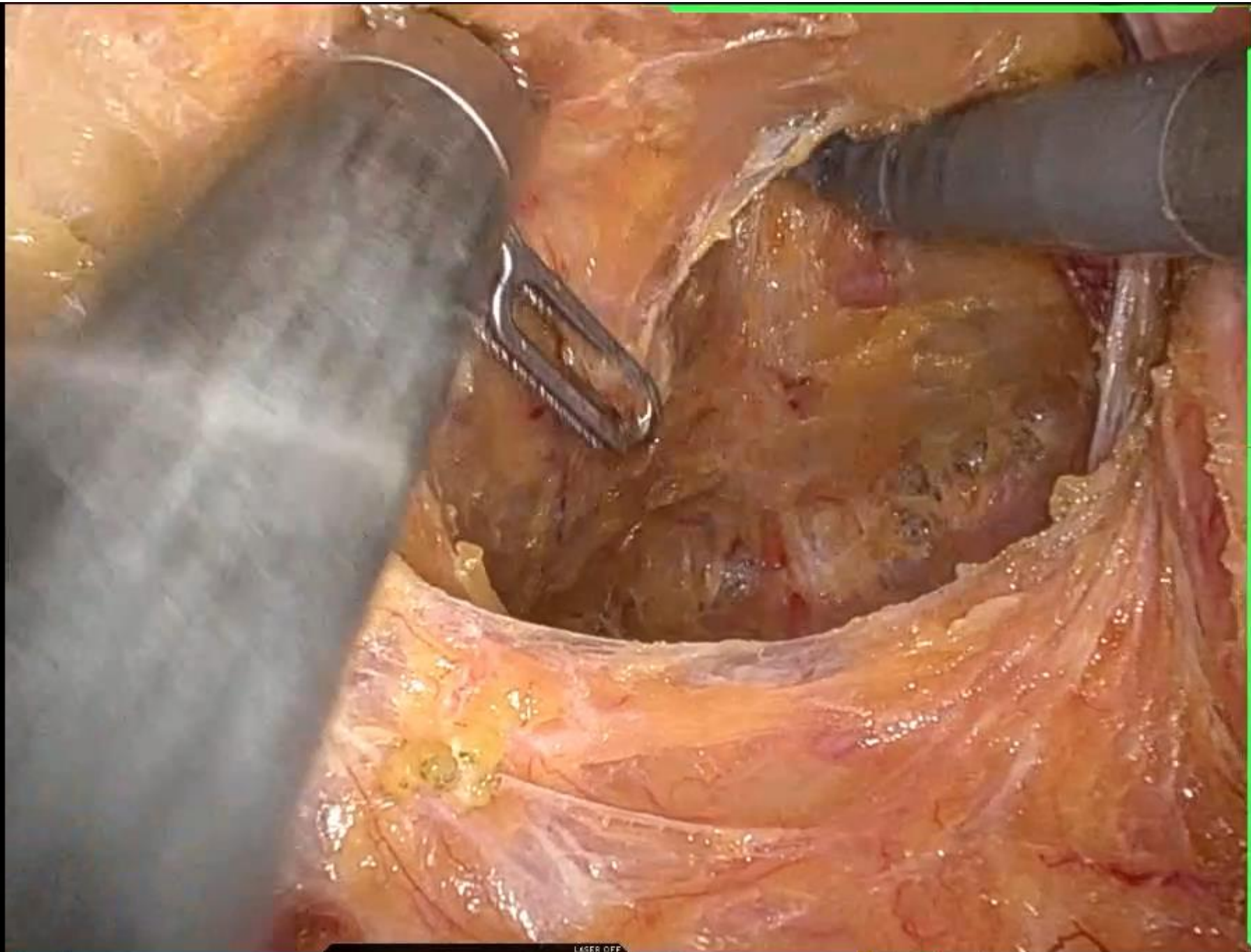
Lowest risk of recurrence (virtually 0%)

8.7% recurrence after shaving

NNT=11

Segmental
resection





1

FENESTRATED BIPOLAR FORCEPS

COAG

2



LASER OFF

1x 30°

3

MONOPOLAR CURVED SCISSORS

R CUT

R COAG

4

CADIERE FORCEPS

THE AFTERMATH OF RECTAL RESECTIONS

Synpathetic: Hypogastric nerves

Parasympathetic S2-4

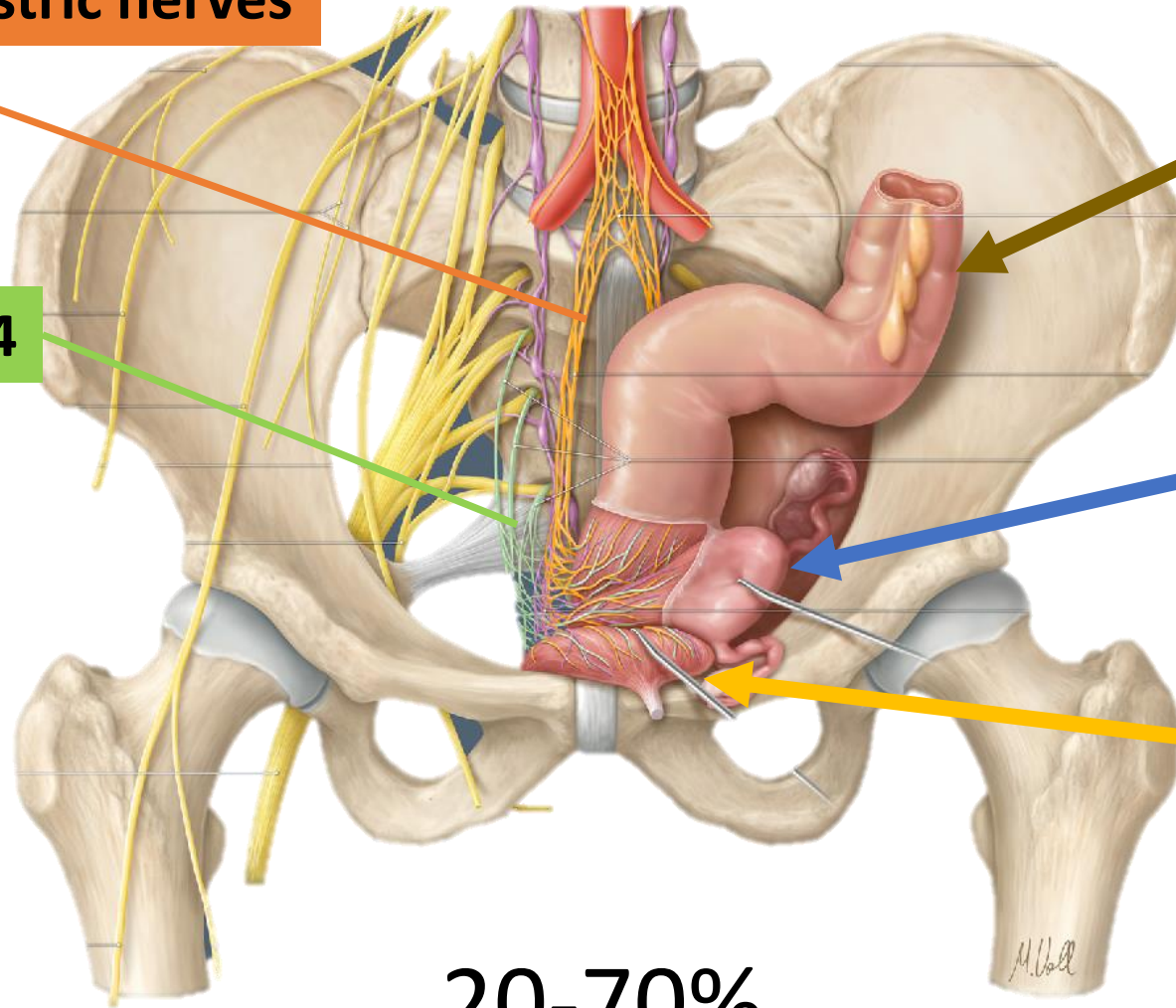
**Inferior
hypogastric
plexus**

**Diarrhoea
Constipation
Clustering
Urge**

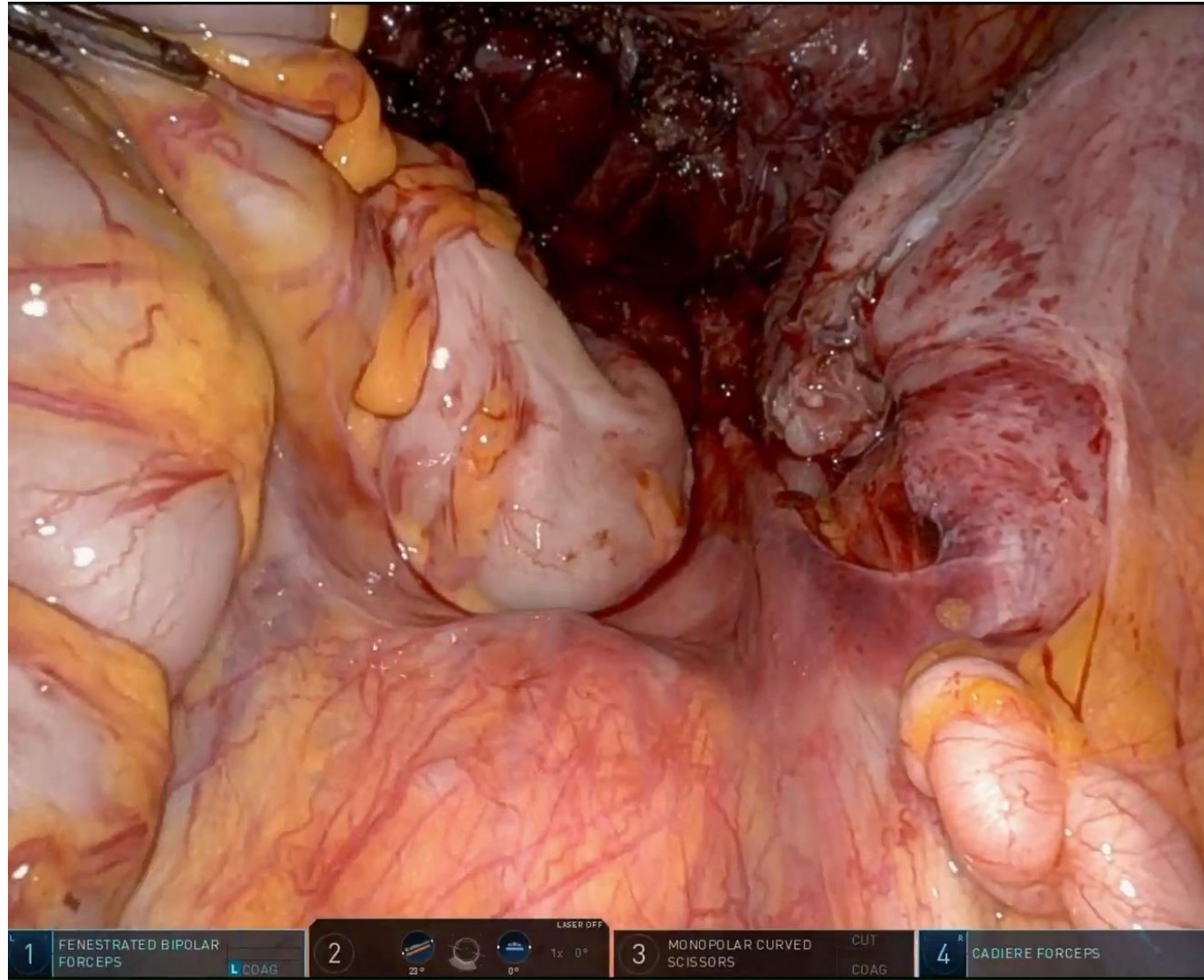
**Dyspareunia
Libido
Erectile
dysfunction**

**Dysuria
Incontinence
Pain**

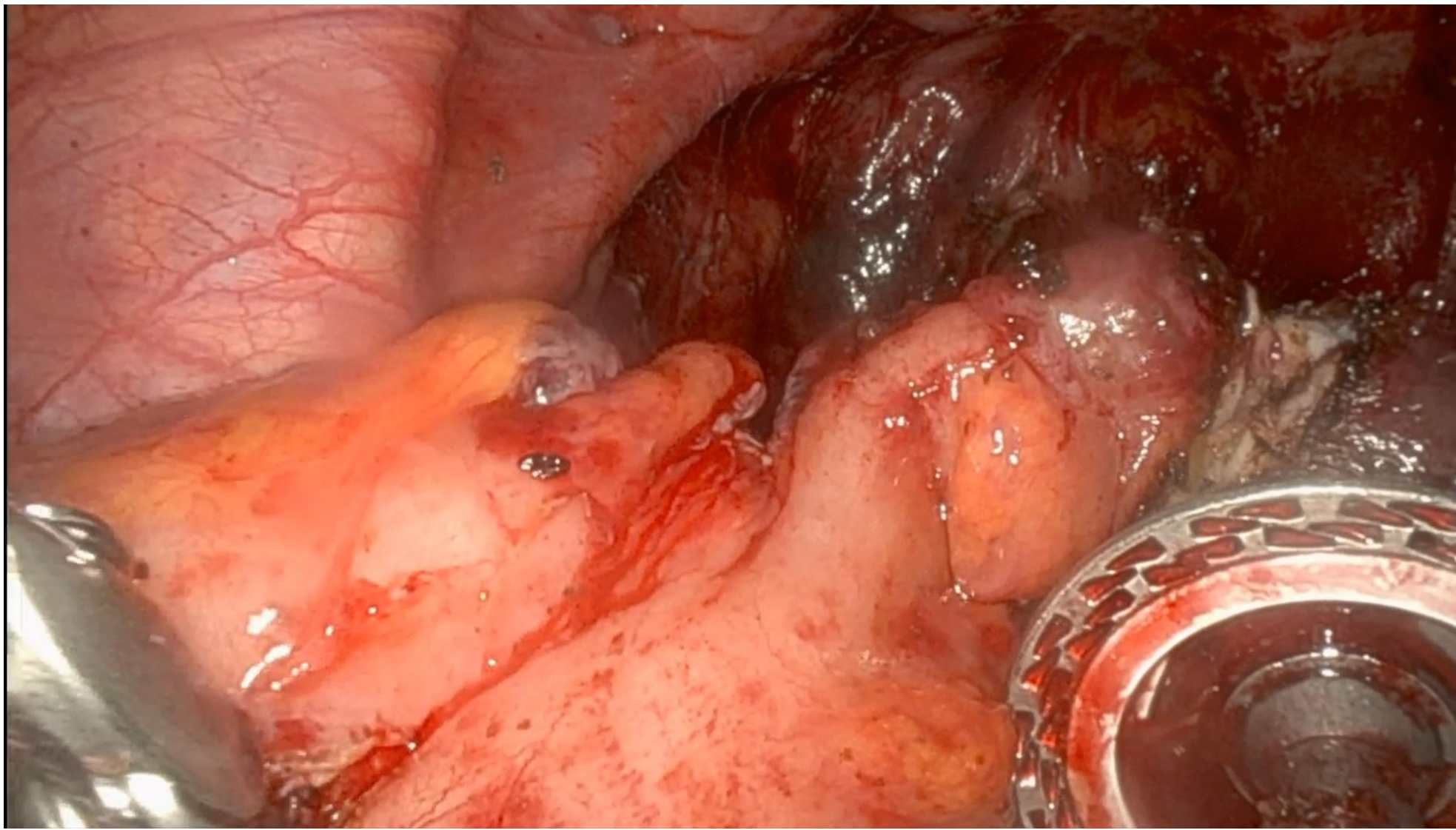
20-70%



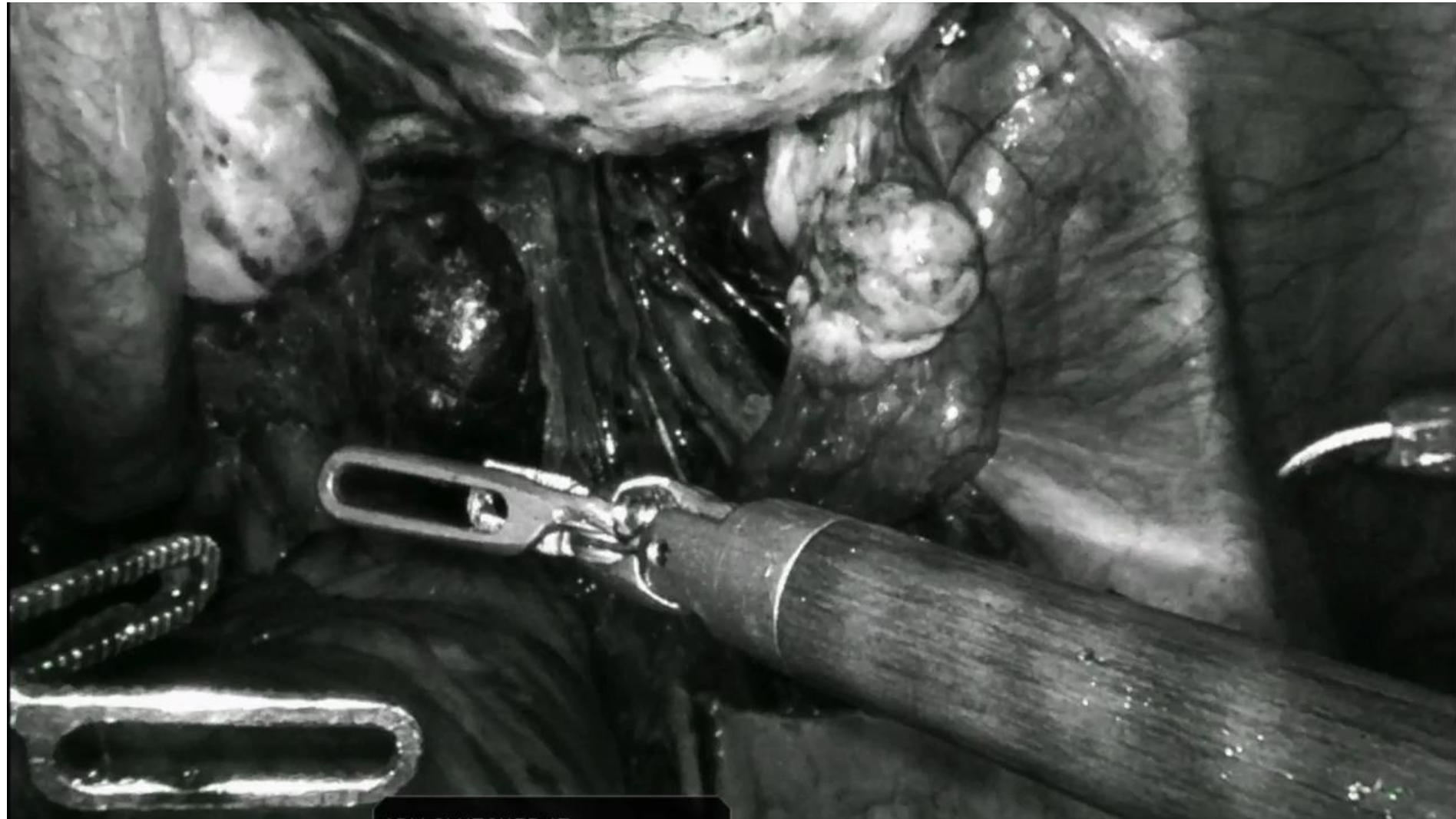
ROBOTIC INTRACORPOREAL SINGLE STAPPLING ANASTOMOSIS (RISSA) AND NATURAL ORIFICE SPECIMENT EXTRACTION (NOSE)



ROBOTIC INTRACORPOREAL SINGLE STAPPLING ANASTOMOSIS (RISSA) AND NATURAL ORIFICE SPECIMENT EXTRACTION (NOSE)



ROBOTIC INTRACORPOREAL SINGLE STAPPLING
ANASTOMOSIS (RISSA) AND NATURAL ORIFICE
SPECIMENT EXTRACTION (NOSE)



CONCLUSIONS

- *Endometriosis is affecting 1/10 women*
- *DIE symptoms can be debilitating*
- *Robotic surgery: sweet spot between radicality and tissue sparing*