VAGINAL HYSTERECTOMY: THE TOUGH CASES

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Thinking About Ob/Gyn Podcast

DETAILS / DISCLOSURES

01. Questions: Please ask anything as we go and we'll also have time later for questions.

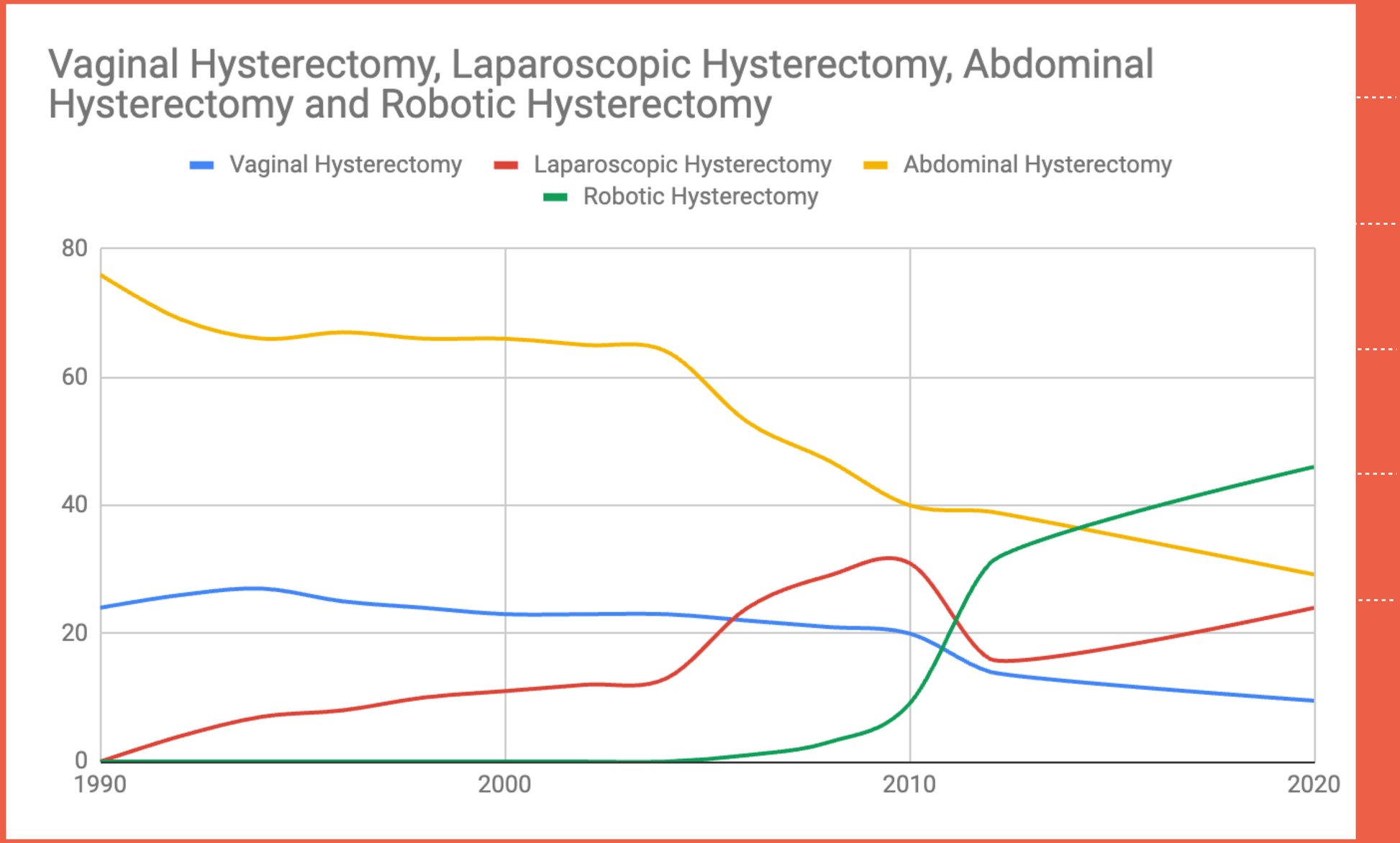
02. Disclosures: I wrote a book about vaginal hysterectomy. It's not a source of income.

03. Me: Find me at hherrell@gmail.com.

04. Apologies: Don't be offended if I do something differently than you do.

05. Experience: I do more than 98% of hysterectomies vaginally and haven't done a non-VH in several years.

TRENDS IN ROUTE OF HYSTERECTOMY 1990-2020



WHY

VH?

IF IT’S TOUGH, WHY NOT JUST DO IT ENDOSCOPICALLY?

OUTCOMES

LESS BLOOD LOSS

AH: 5.7%

LH/RH: 3.0%

VH: 1.6%

FEWER BLADDER INJURIES

AH: 0.9%

LH/RH: 1.0%

VH: 0.6%

FEWER URETER INJURIES

AH: 0.3%

LH/RH: 0.3%

VH: 0.04%

FEWER BOWEL INJURIES

AH: 0.2%

LH/RH: 0.4%

VH: 0.1%

FEWER FEBRILE EVENTS

AH: 2.5%

LH/RH: 1.0%

VH: 0.9%

LEAST MAJOR COMPLICATIONS

AH: 4.0%

LH/RH: 4.3%

VH: 2.6%

(including PE and death)

OUTCOMES

CHEAPER

LH: $11,558

RH: $13,429

LAVH: $10,068

VH: $7,903

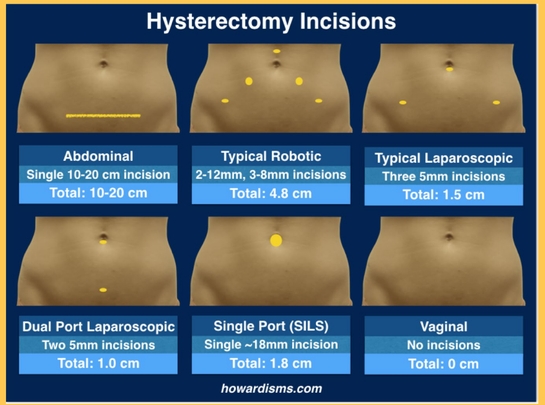
QUICKER

VH: 42 minutes

LH: +37 minutes

RH: +varies widely

LEAST INVASIVE



LESS PAINFUL

According to every study except one industry-funded, Italian study

QUICKER RETURN TO WORK

And quicker recovery in general, with lower associated societal costs

LESS CUFF DEHISCENCE

At least 6 times less likely than endoscopic hysterectomy as well as almost 4 times lower rate of conversion to laparotomy, and less likely to be readmitted or have additional surgery

WHY

NOT?

RATIONALIZATIONS

MARKETING

Industry makes millions from endoscopic equipment and thus heavily promotes endoscopic routes

OPERATING IN THE DARK

False belief of surgeons that more exposure is better

POOR TRAINING

Skillset of experienced vaginal surgeons is dying. Most vaginal work now done by Urogyn who typically operate on easiest prolapse cases

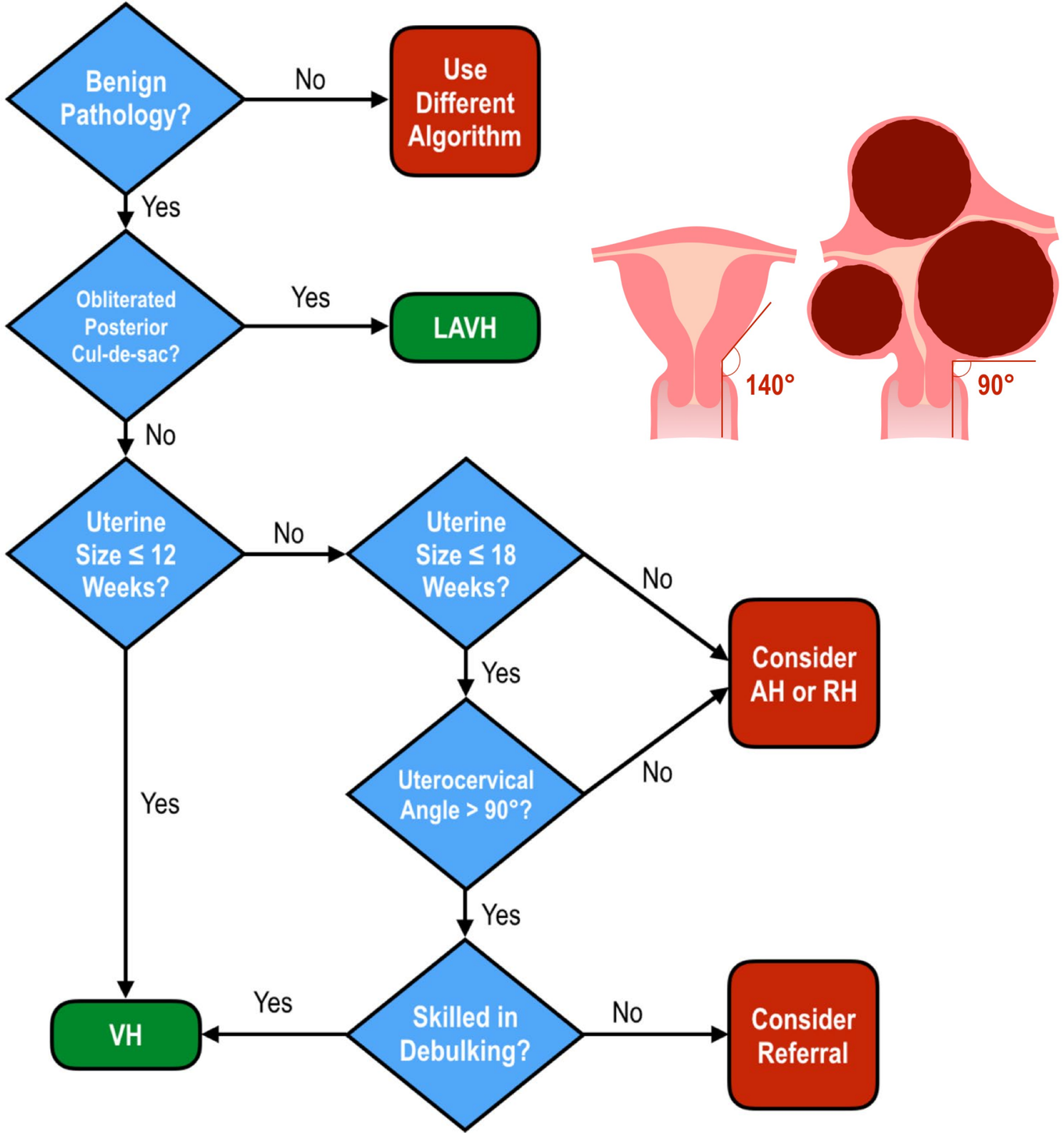
NEWNESS FALACY

New is not necessarily better

OBSOLETE TECHNIQUES

Stubborn adherence to old ways (like clamp-cut-tie or anterior colpotomy first) is killing VH

WHAT ELSE?



ROUTE SELECTION ALGORITHM

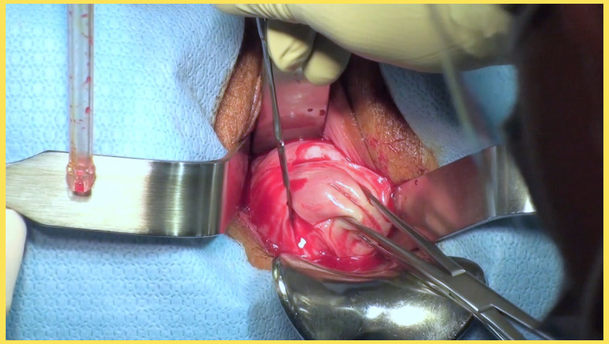
At least 65% of cases are on the left-side

At least 88% of cases can be done with basic techniques (minimal debulking)

Advanced techniques enable at least 97% success

SIMPLIFIED VAG HYST

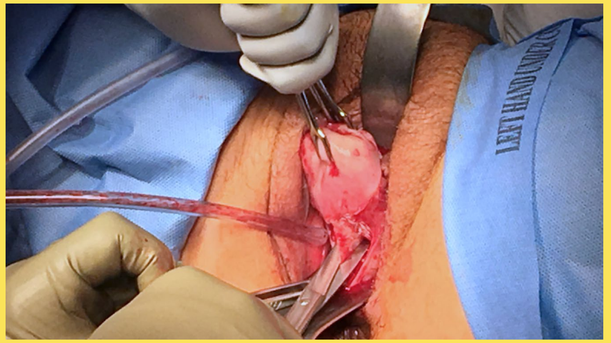
THE BASIC TECHNIQUE



1

Cervical circumcision

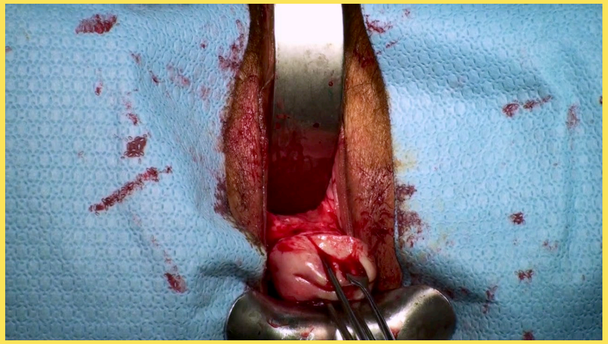
Using a scalpel, deep into the tissue, after infiltration with bupivacaine/vasopressin



2

Posterior colpotomy

Made sharply with scissors and with the peritoneum tagged to the vaginal mucosa



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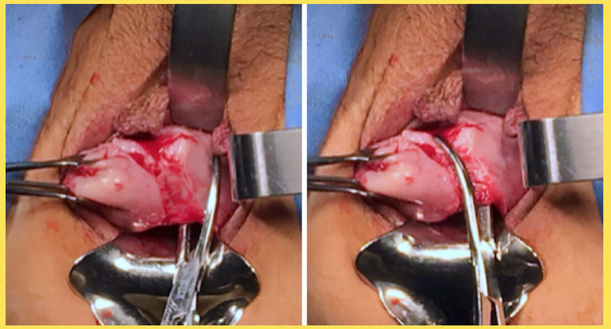
Mobilization of bladder

To roll back ureters and bladder pillars and make room for USL clamps



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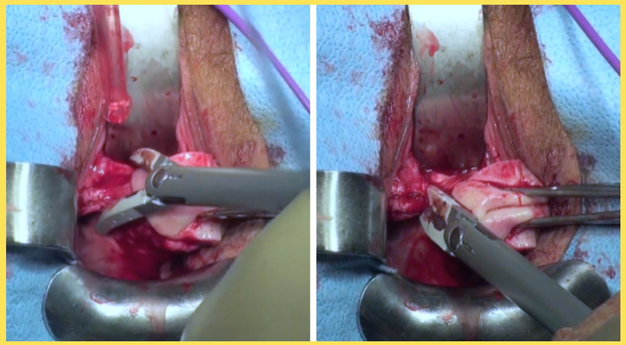
Division of USL

With traditional clamp, division, and suture to preserve pedicles for reconstruction



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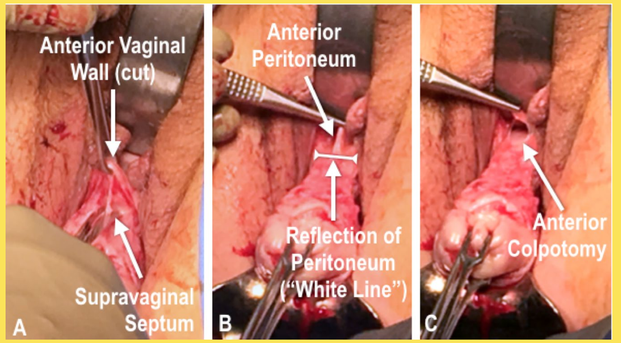
TS&D of CL and UA

Thermal seal and division to gain descent and control blood loss



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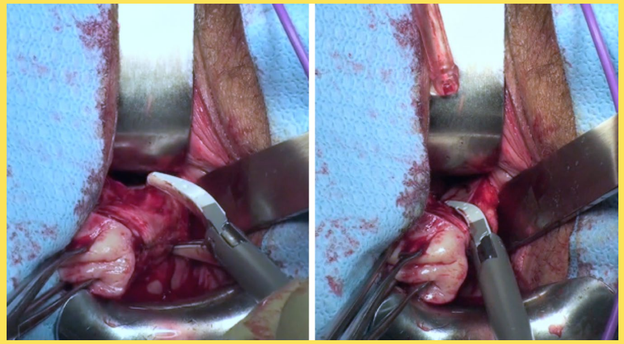
Anterior Colpotomy

Sharply with correct anatomic knowledge



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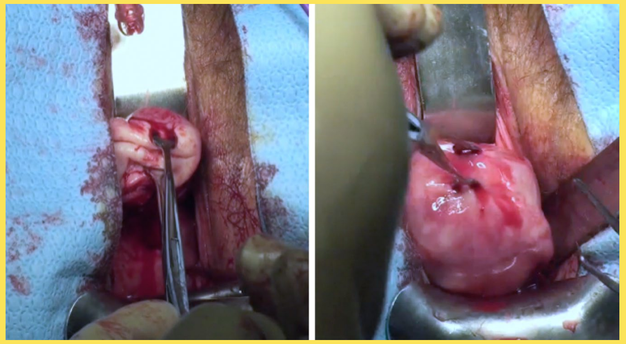
TS&D of BL

Thermal seal and divide remaining broad ligaments



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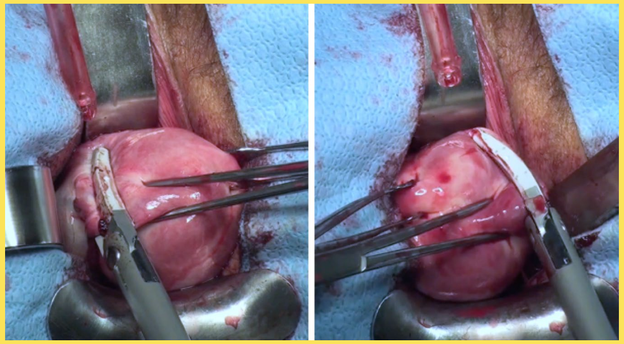
Delivery of fundus

If possible to allow thermal sealing of remaining pedicles away from viscera



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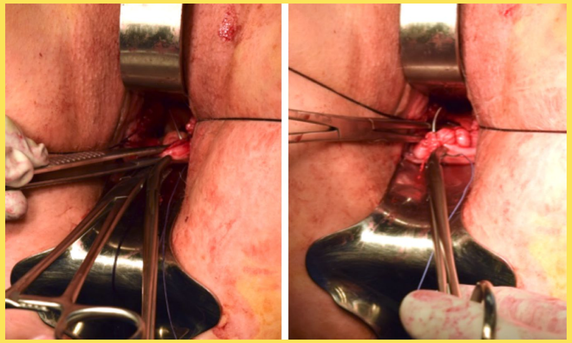
TS&D of remainder

Divide upper pedicles ± tubes/ovaries with energy device



10

Culdoplasty/Closure

Perform any necessary pelvic floor repairs and close cuff in a vertical manner

Send home in 3-4 hours

Usually needs no more than 15 narcotic tablets. Return to work in 1-2 weeks depending on type of work.

OBSTACLES

LACK OF DESCENSUS, OBESITY

Nulliparity, no prior vaginal delivery, narrow introitus, morbid obesity

DIFFICULT ANTERIOR COLPOTOMY

Prior cesareans, lower anterior fibroid

SIZE

Fibroids, adenomyosis

DIFFICULT POSTERIOR COLPOTOMY

Obliterated posterior cul-de-sac, endometriosis

NEED FOR ADNEXECTOMY

Salpingectomy, oophorectomy

ADHESIONS

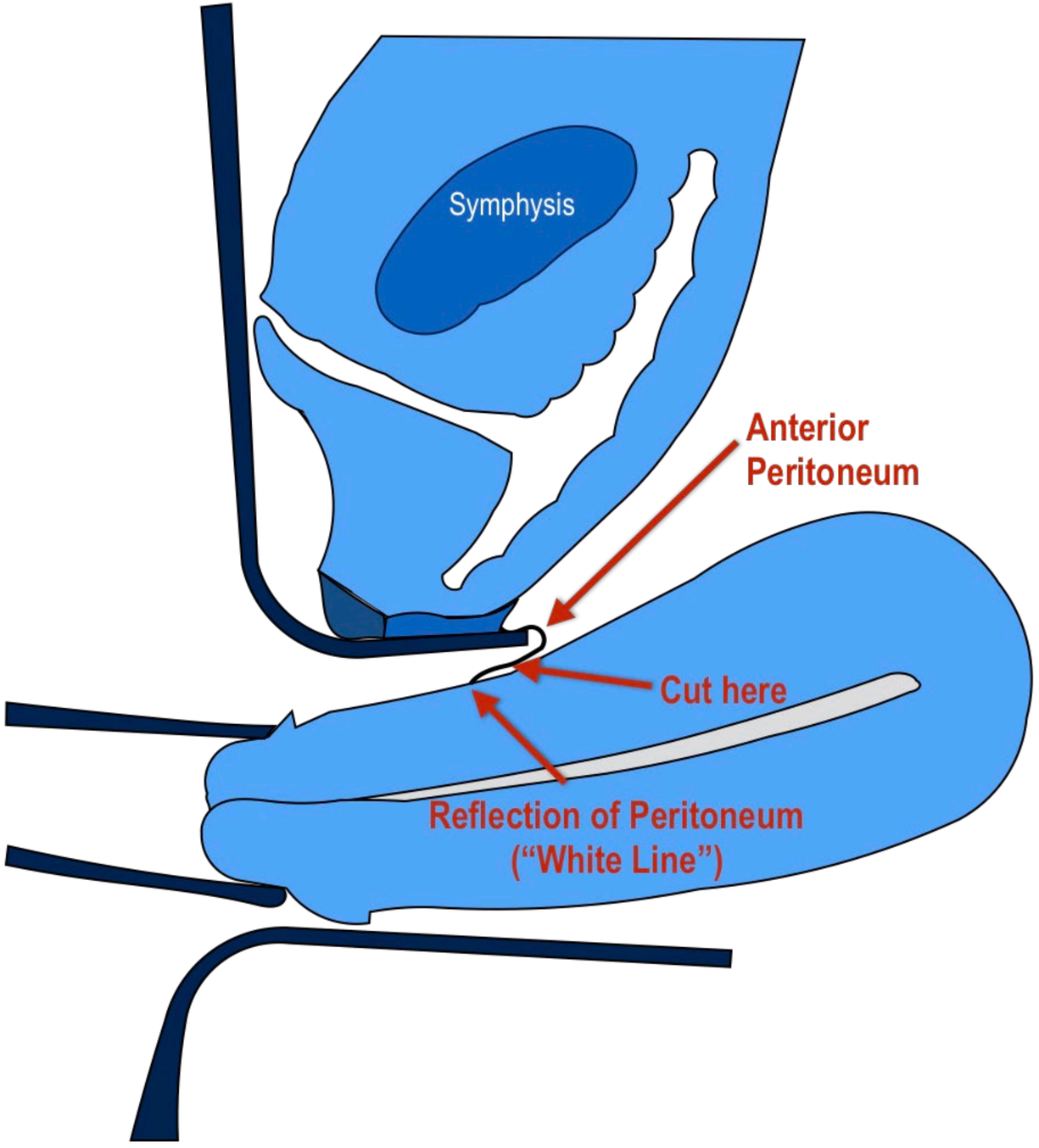
Prior cesareans with adhesions to abdominal wall, other prior abdominal or pelvic surgeries

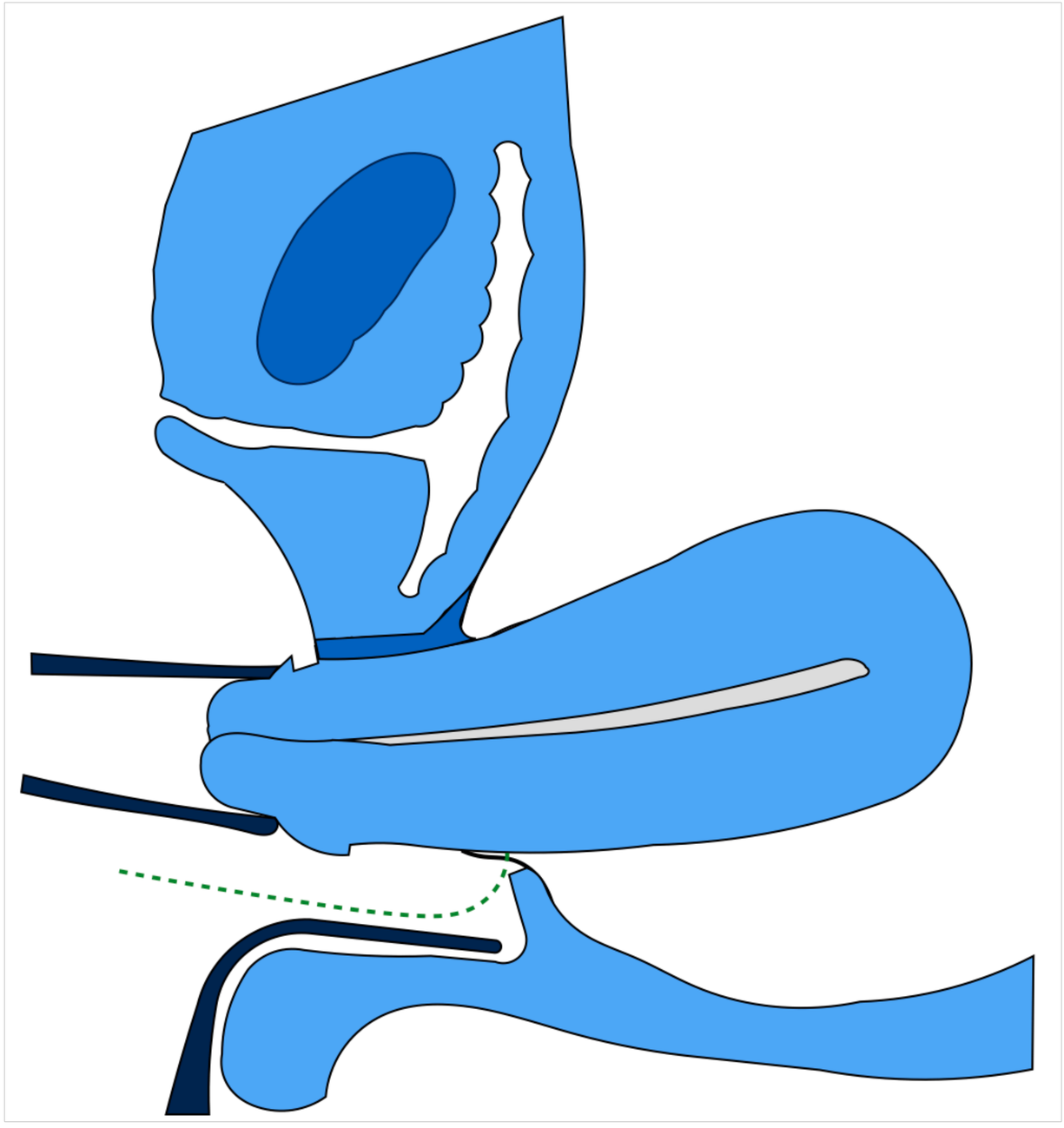
CASE #1

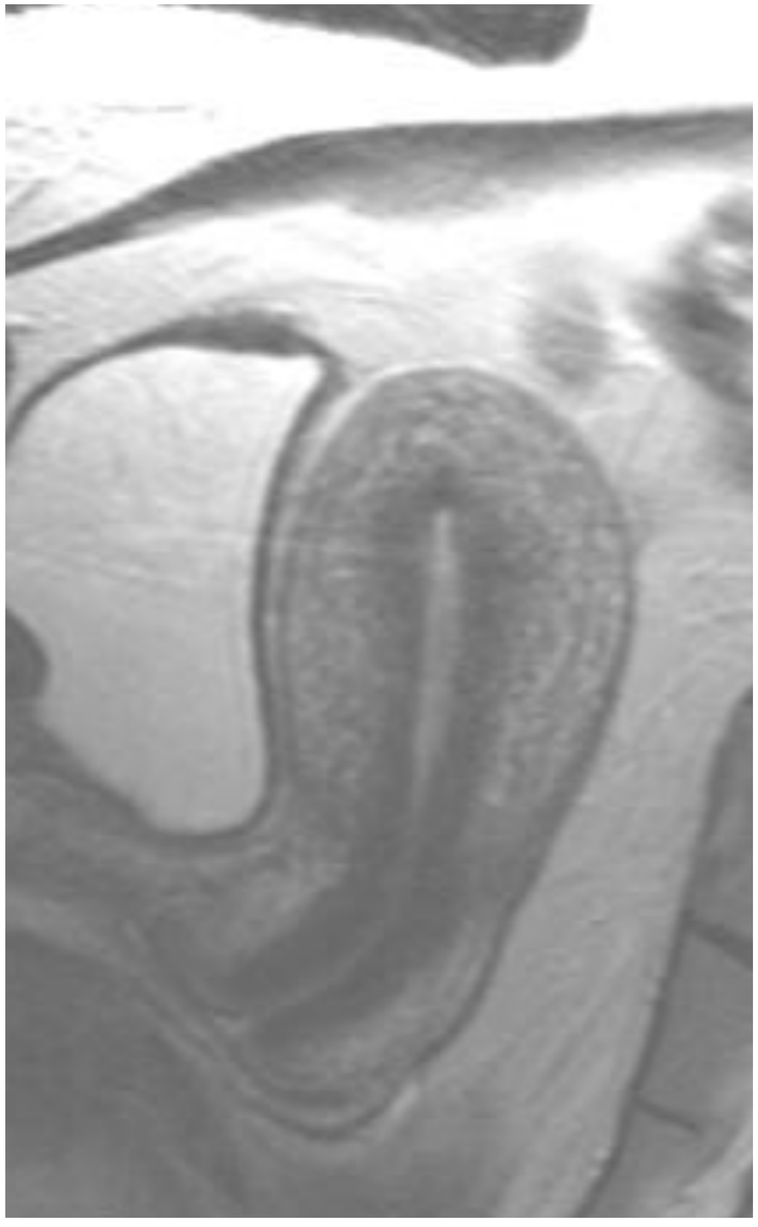
- 58-year-old G1P1 with a BMI of 38 with an enlarged fibroid uterus. She has a history of a prior cesarean delivery. On examination, there is no uterine descent appreciated. On imaging, the uterus measures 20x10x12 cm with a volume of 1272 ml. There are multiple fibroids noted and the largest is approximately 10 cm in diameter and subserosal, located on the right side near the fundus. The second largest is approximately 6 cm in diameter and is located posteriorly and there is a third intramural fibroid on the anterior and left side measuring approximately 4 cm in diameter. Other smaller fibroids are also noted.

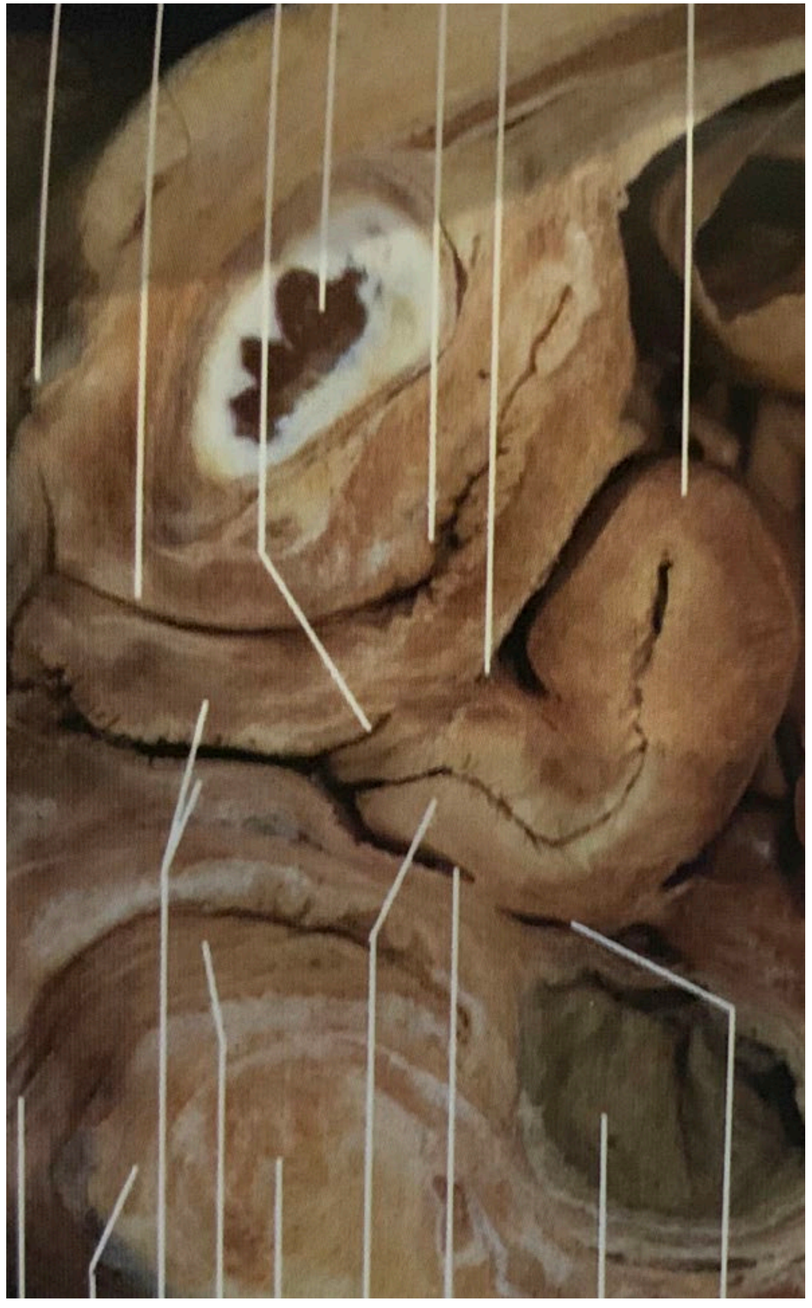
TRICKS

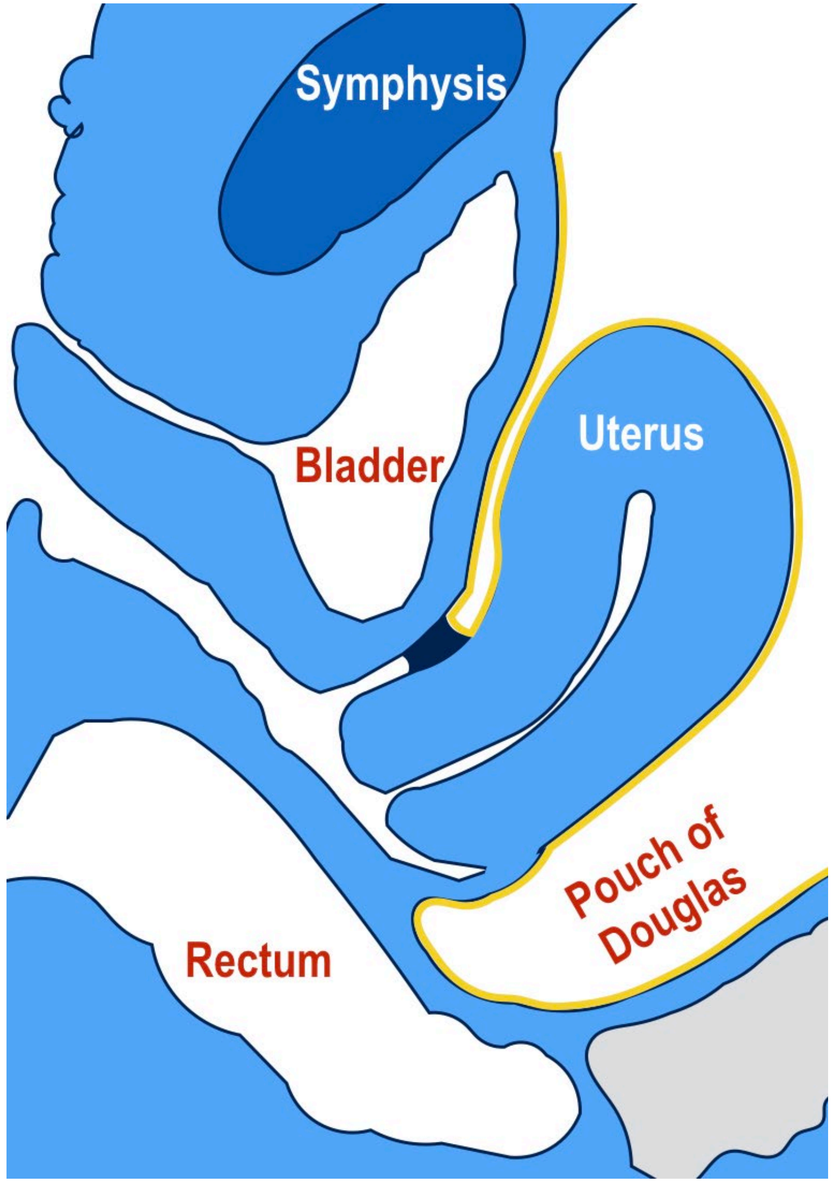
1. Understand anatomy of posterior colpotomy/USL ligaments/Ureter
2. Patient Positioning
3. Jorgensen’s and Allis
4. Uterosacral massage
5. Pelosi Method


Symphysis
Anterior
Peritoneum
Cut here
Reflection of Peritoneum
("White Line")








Symphysis
Bladder
Uterus
Pouch of Douglas
Rectum

TIPS FOR THE OBESE PATIENT

Candy-cane stirrups

Allow buttocks to drape off the table

Avoid Trendelenburg’s position

Use a Deaver or right-angle retractor instead of the short weighted or long weighted retractors

TIPS FOR POOR DESCENT

Non-Trendelenburg position

Döderlein-Krönig technique (uterosacral massage)

Try different retractors

Be flexible in making a posterior colpotomy

Staged uterosacral ligation

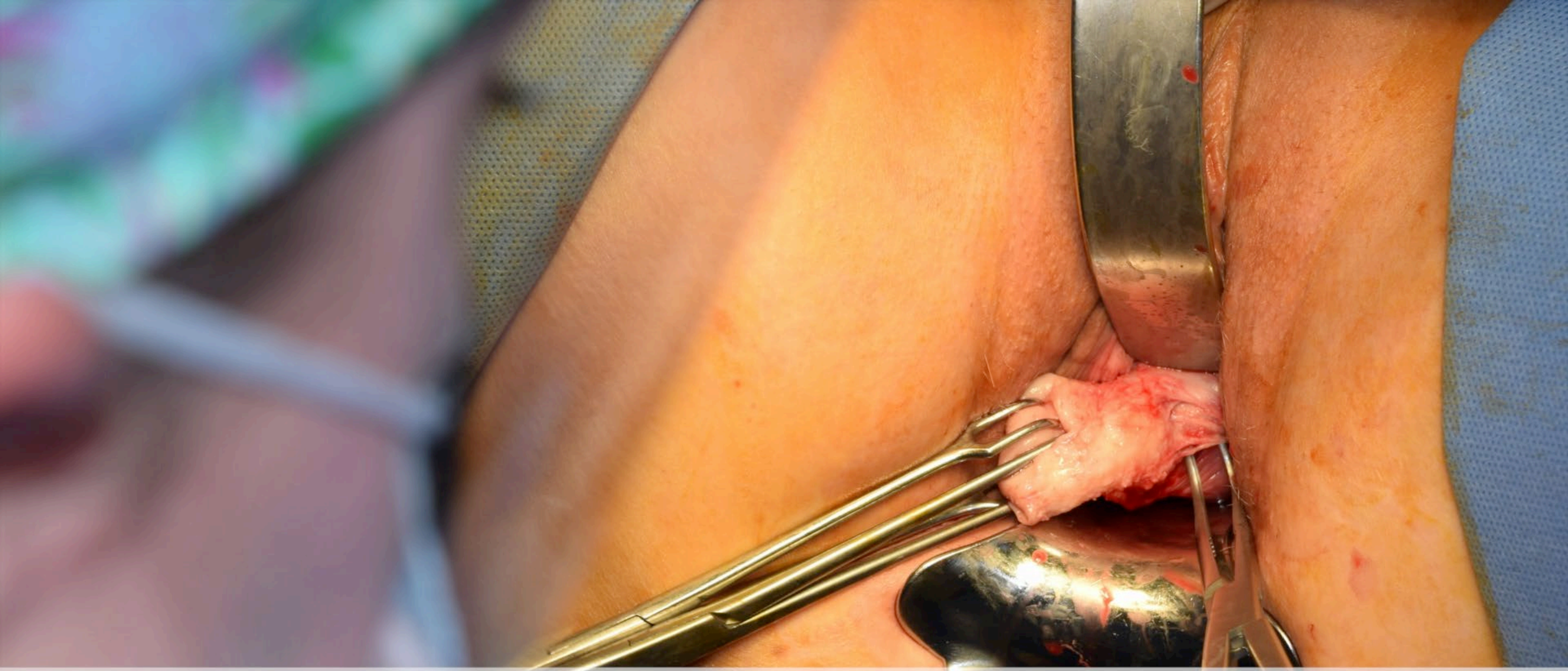
Right-angle or Shallcross clamp technique

DESCENT TRICKS

1. Right-angle clamp and cautery
2. Staged USL ligation
3. USL massage

RIGHT ANGLE CLAMP

BEST TRICK EVER



Right Angle or Shallcross Clamp

Use a clamp and Bovie to dissect residual uterosacral/cardinal ligament

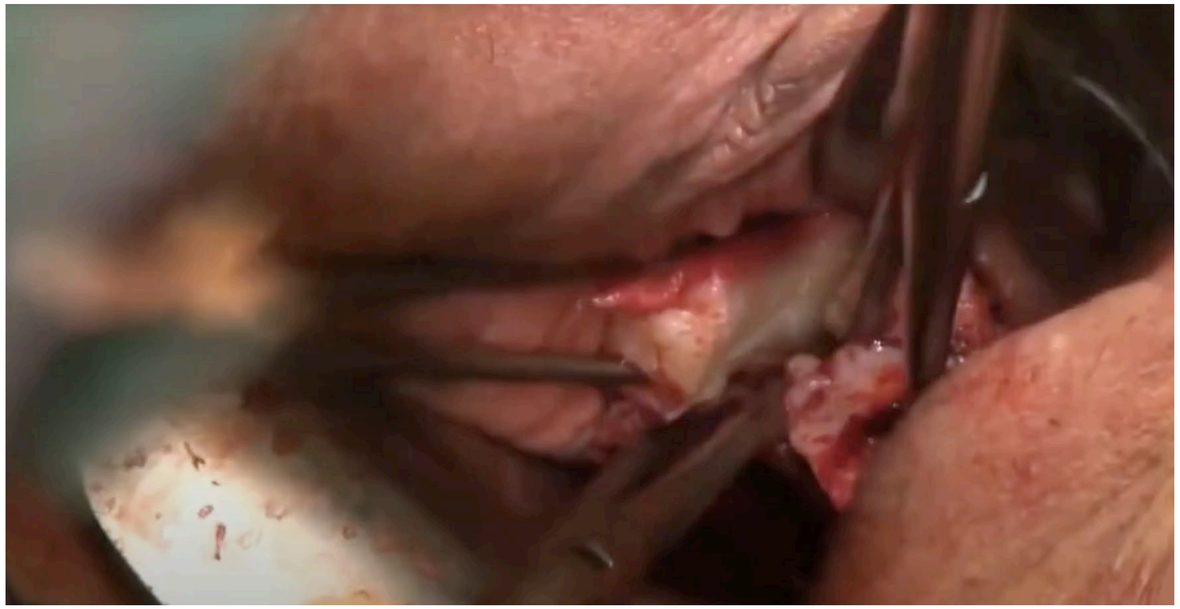
TIPS FOR AN ENLARGED UTERUS

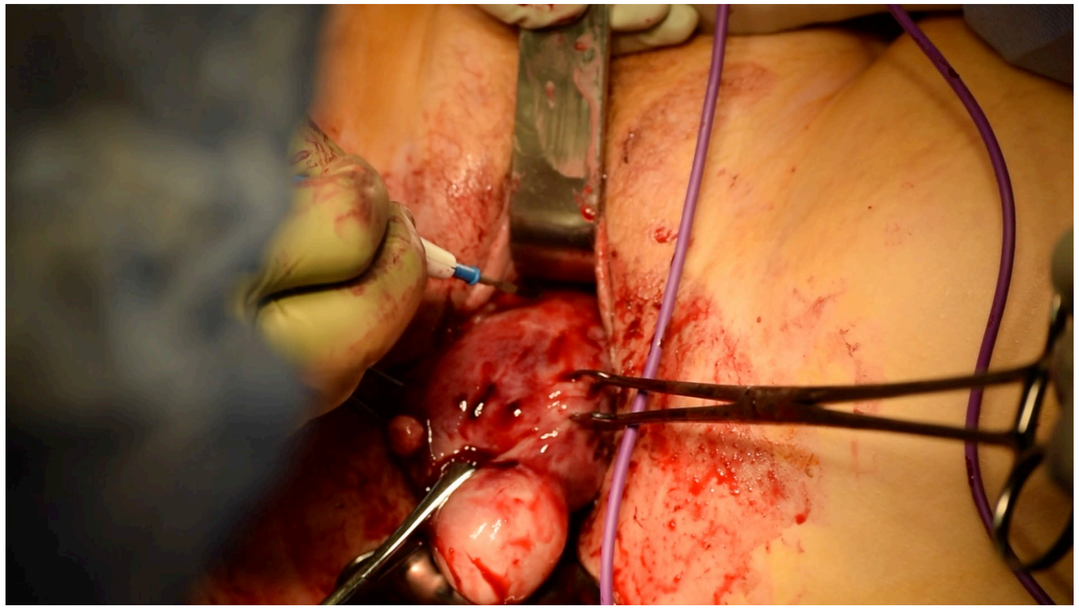
Bivalve

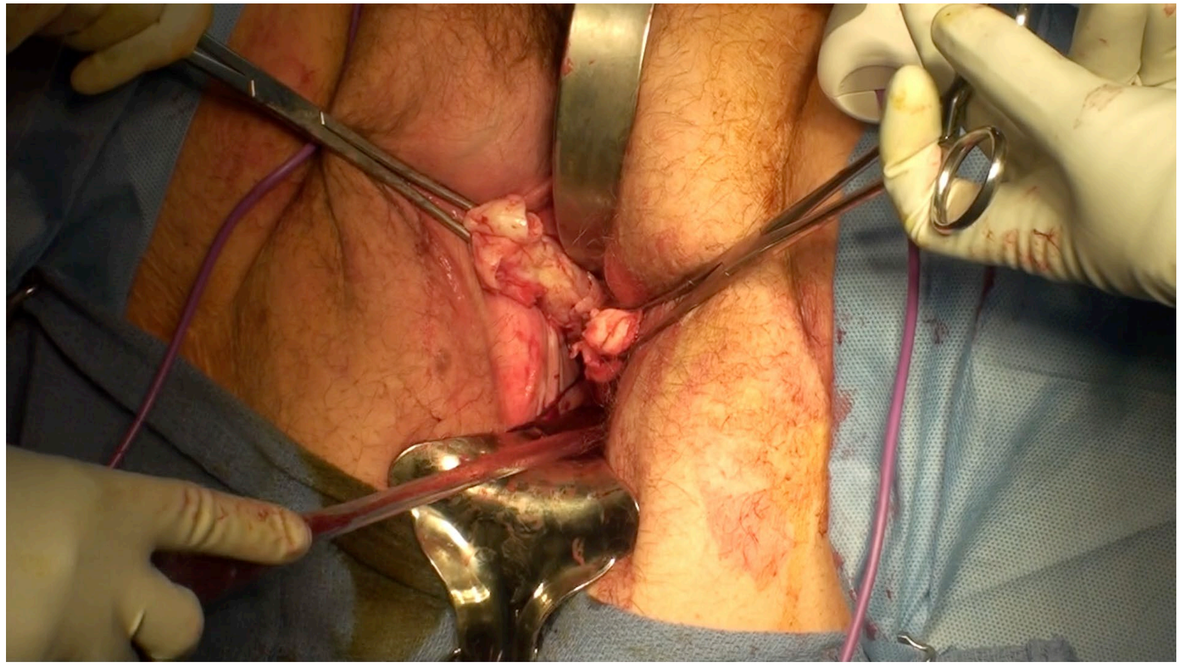
Core

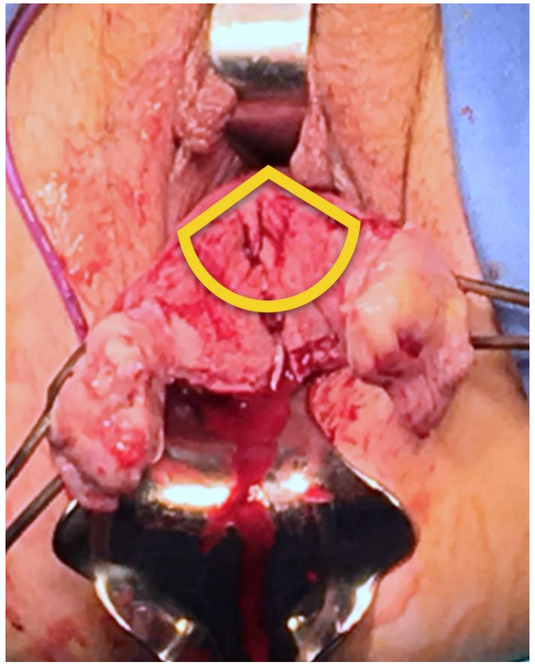
Wedge

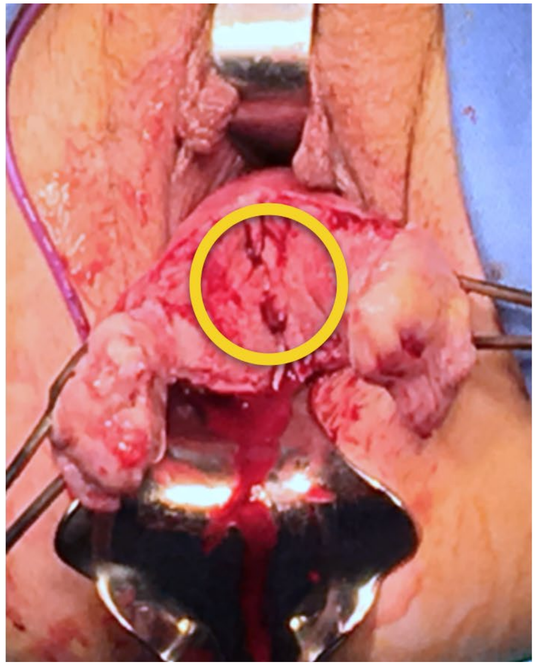
Remove fibroids

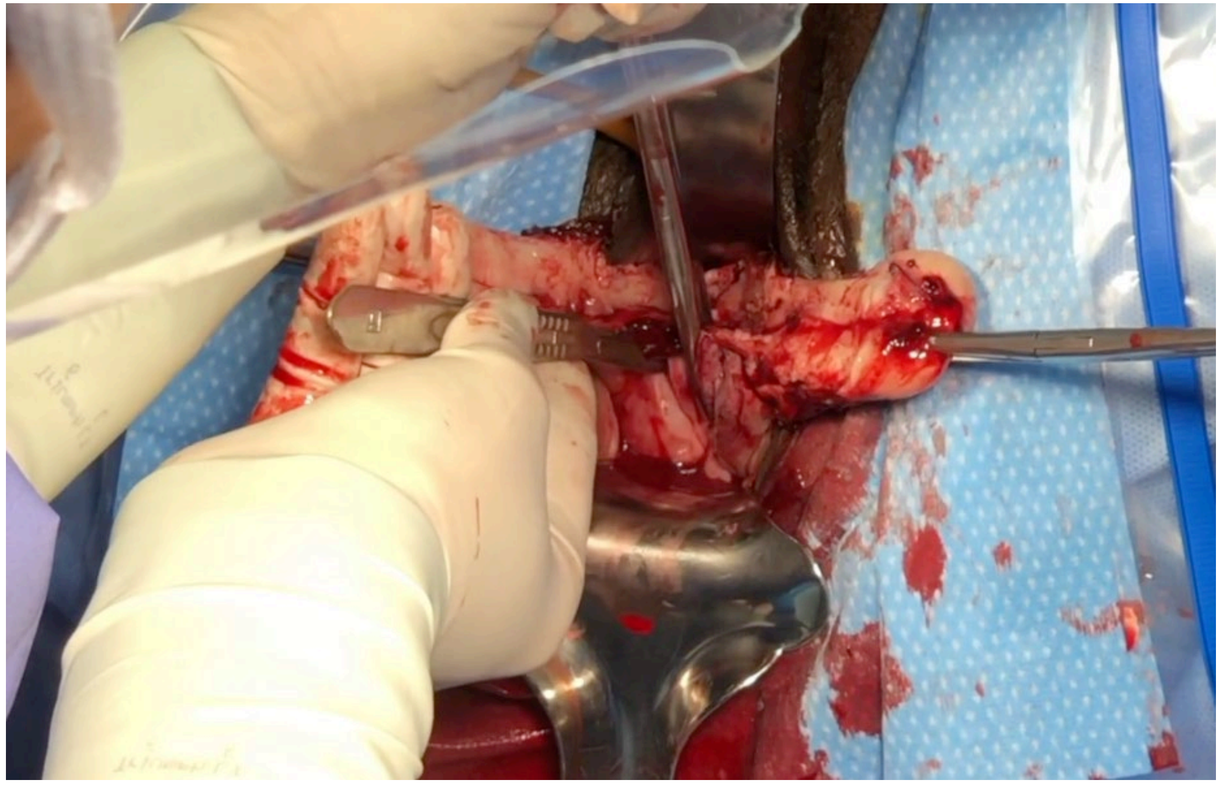


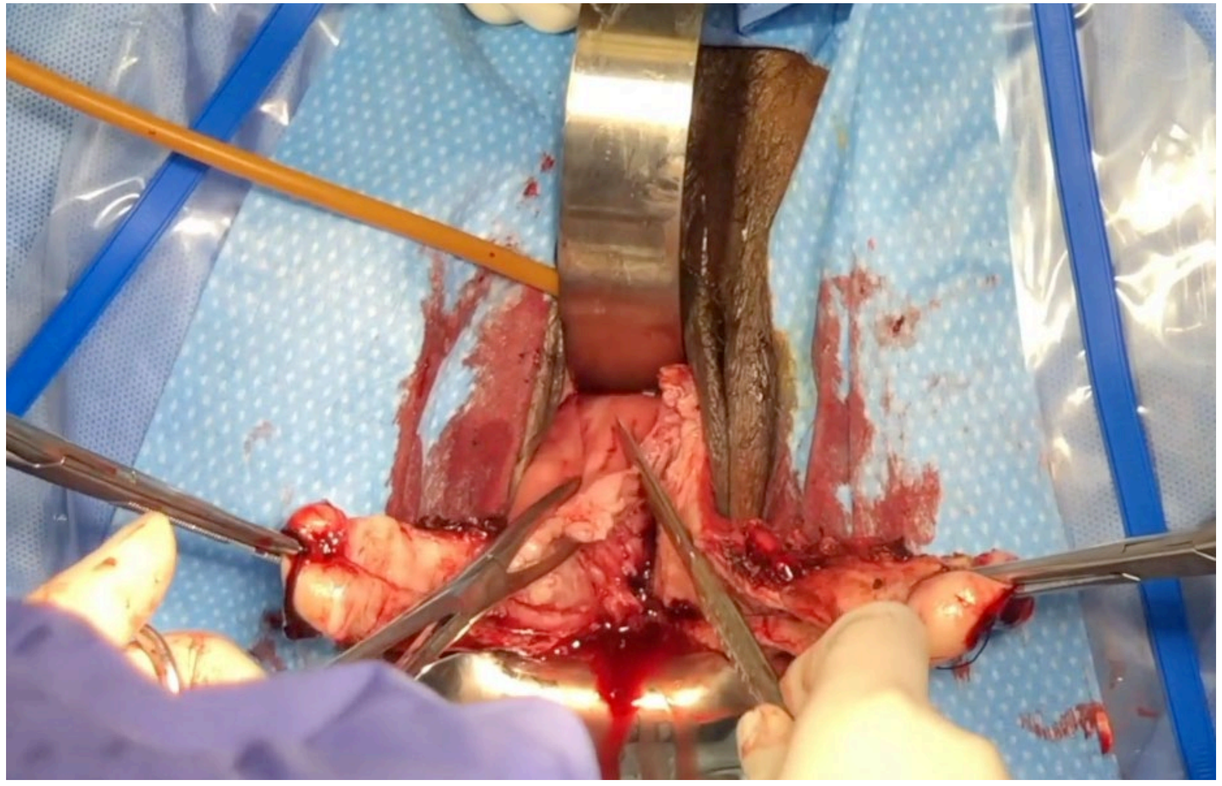


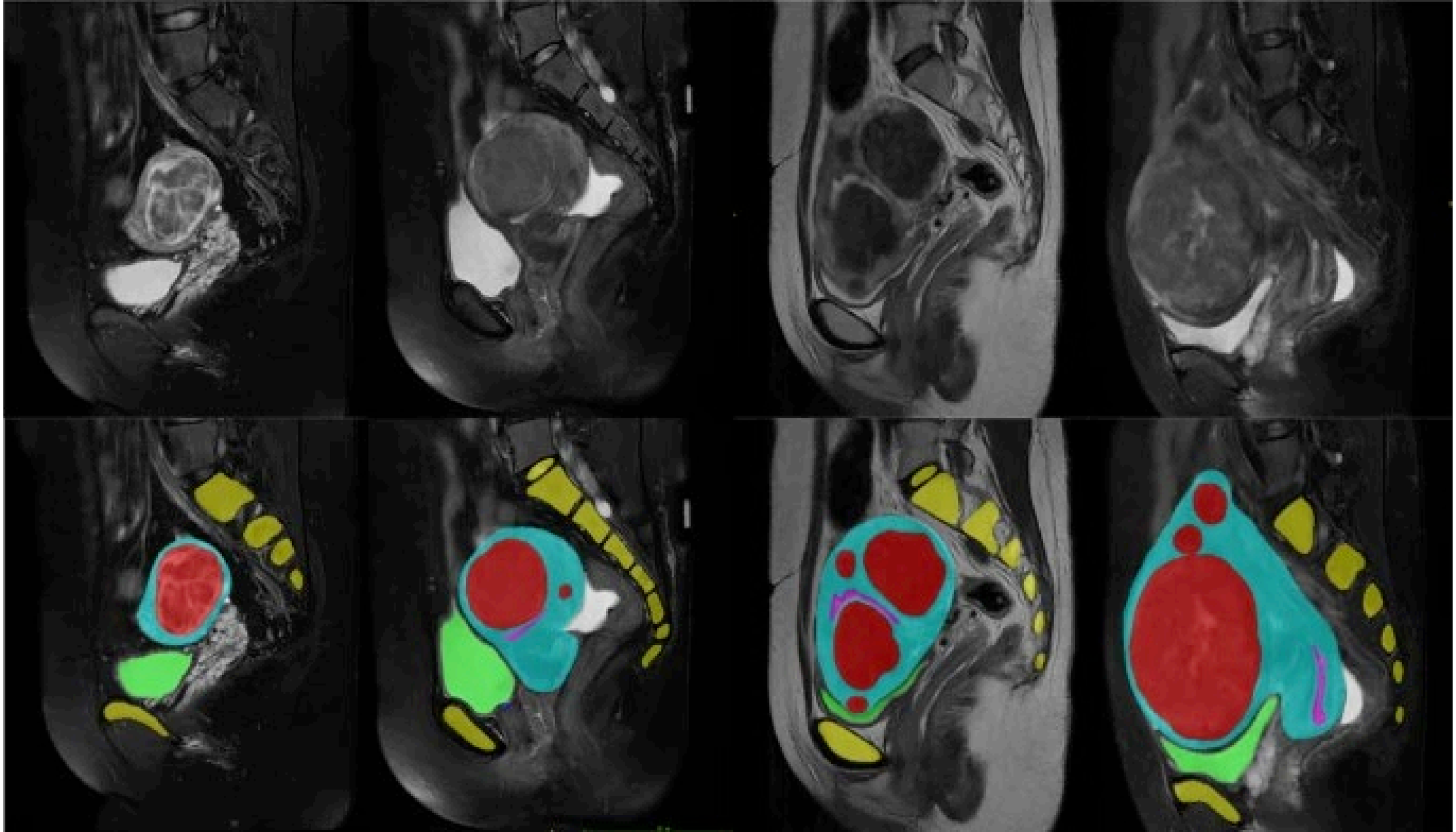


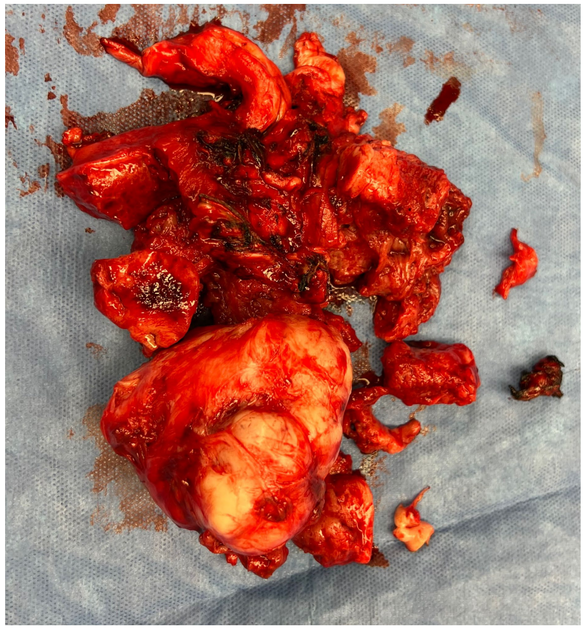


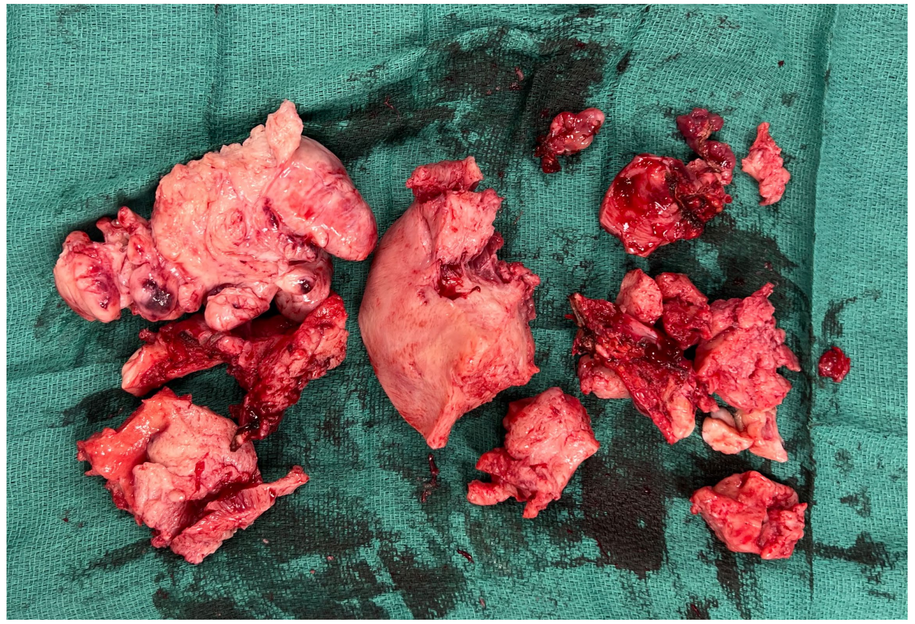


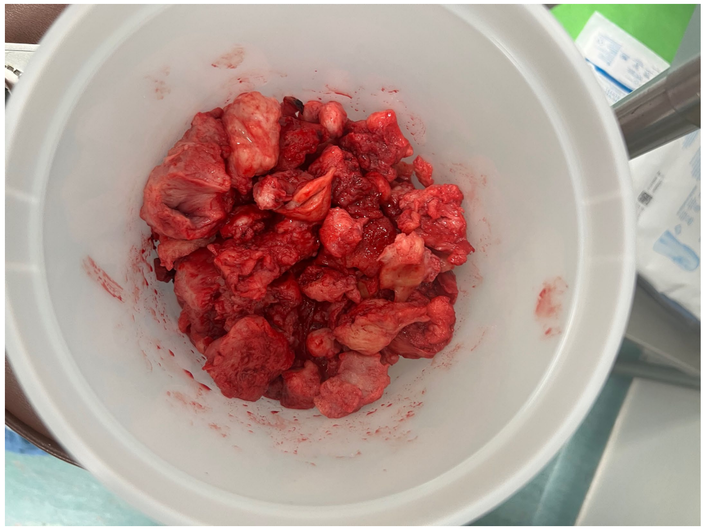


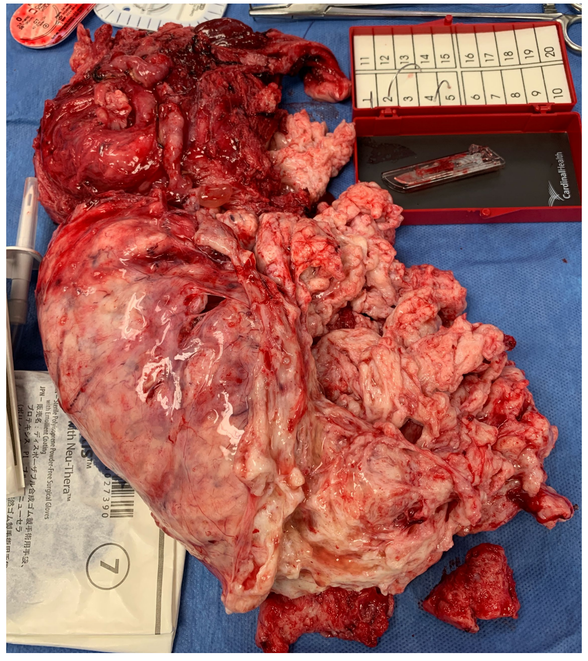


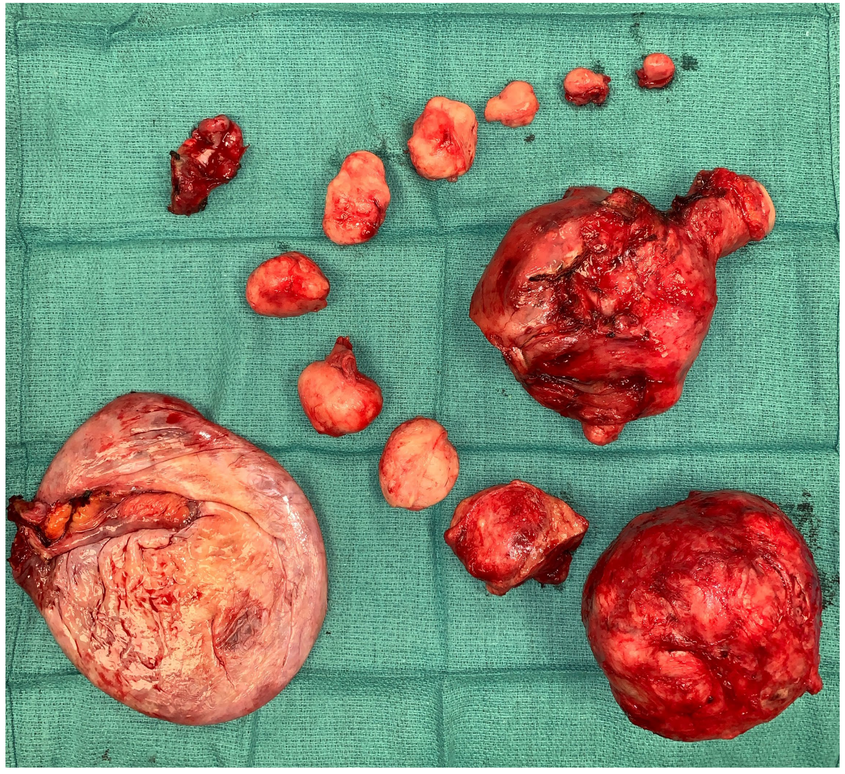












CASE #2

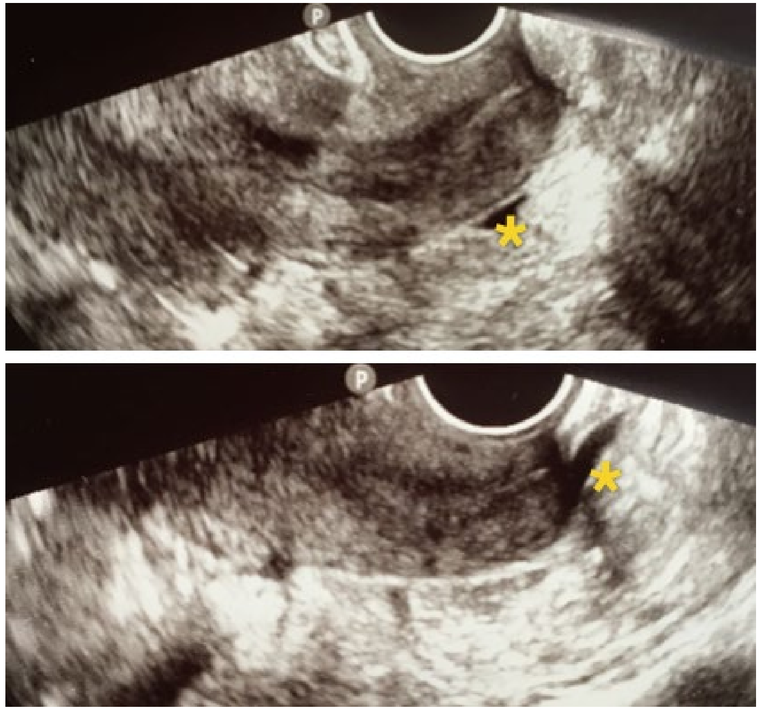
- 41-year-old G4P4 with Stage III prolapse and stress incontinence. Plan is for TVH-BS, uterosacral colpopexy, TOT, anterior colporrhaphy, cystoscopy.
- During the initial portions of the case, posterior colpotomy was difficult.
- Pathology: 151 gr uterus, adenomyosis, endometriosis

TIPS FOR A POSTERIOR COLPOTOMY

Laparoscopic assistance

Döderlein maneuver

Intrafascial dissection



CASE #3

- 38-year-old G4P4 with a history of four prior Cesareans with abnormal uterine bleeding that has failed medical management, including a LN-IUD, with suspected adenomyosis.

TIPS FOR AN ANTERIOR COLPOTOMY

Delay attempt

Make a deep incision and use sharp dissection

Know the anatomy well

Stay subfascial

Proceed laterally

Come from behind with a finger or a sound

Debulk first

The Four Steps

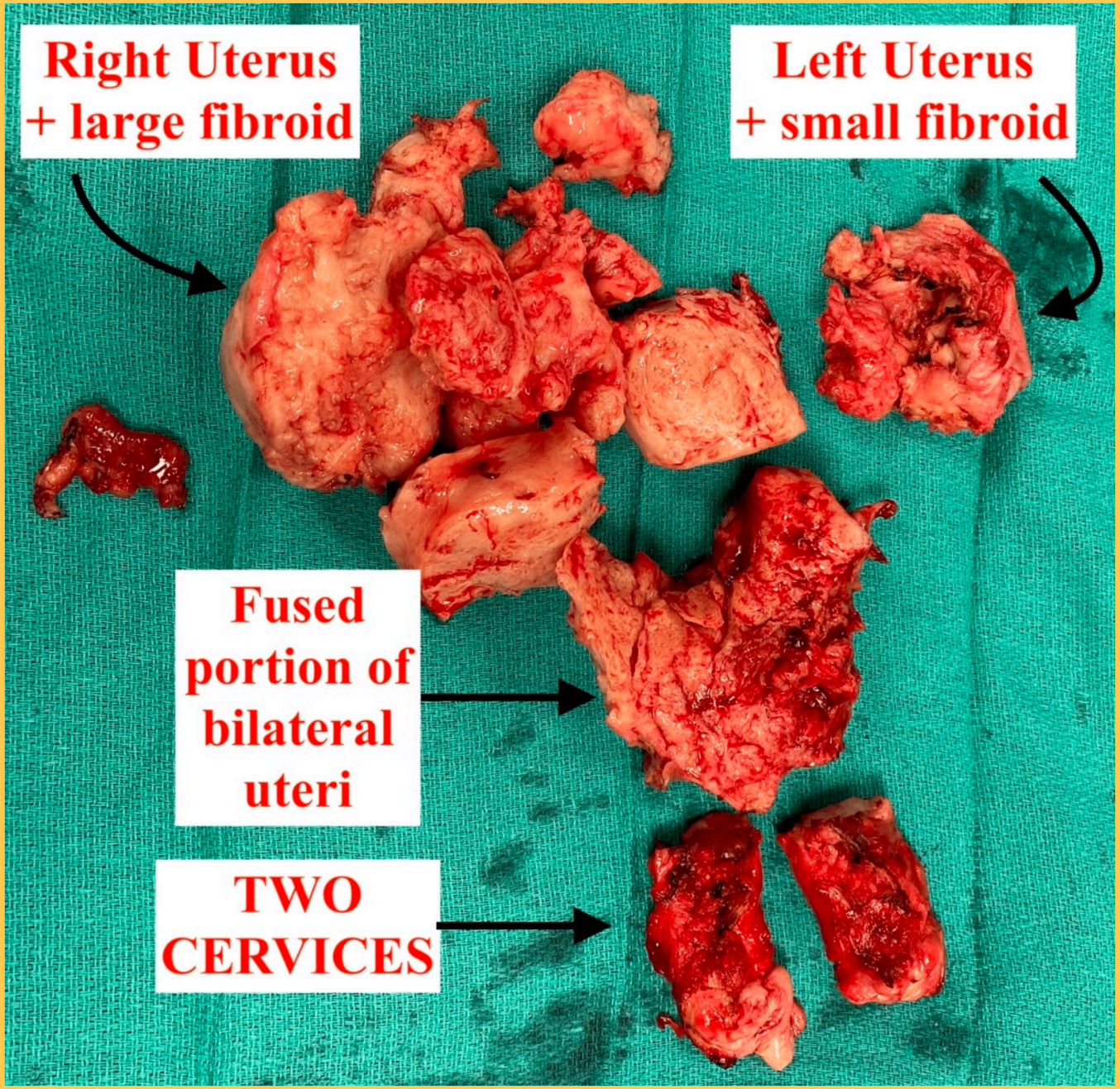
1. Access uterocervical-broad ligament space
2. Upward traction of lateral aspect
3. Access through Pouch of Douglas or by fundal delivery ± debulking
4. Bivalve cervix

CASE #4

- 39-year-old G4P4 with a history of mechanical aortic and mitral valves anticoagulated with coumadin who presented to the emergency department with severe anemia requiring transfusion secondary to abnormal uterine bleeding. To stabilize her bleeding without reversal of her anticoagulant, she underwent an emergent global endometrial ablation using the Novasure device. Due to continued heavy bleeding requiring additional transfusion, she underwent a total vaginal hysterectomy 27 days later after reversal of her anticoagulant.

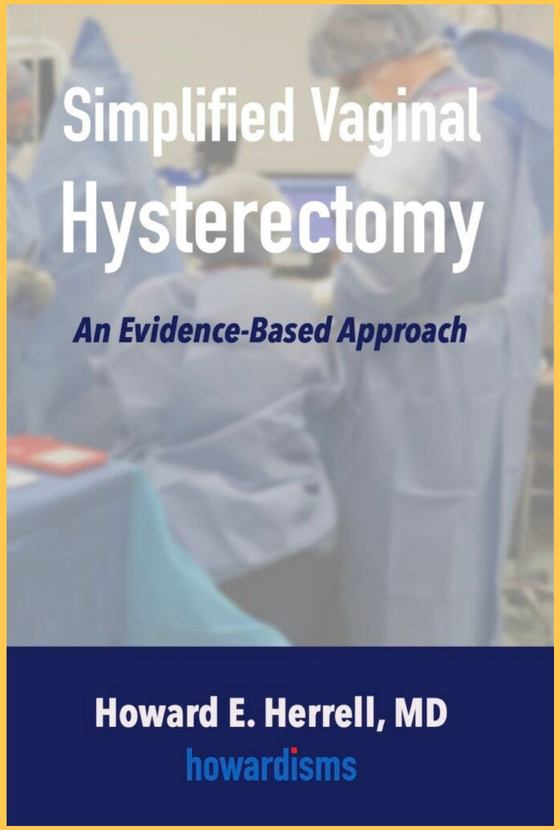
CASE #5

- G4P2 woman in her late 40s with a diagnosis of didelphic uterus that presented with a history of irregular menstrual pattern and dysmenorrhea worsening over the past 3 months. Conservative treatments with oral progesterone and depot medroxyprogesterone acetate were previously attempted with no improvement in her condition. Her surgical history included a vaginal septum resection and two cesarean deliveries. An endometrial biopsy and transvaginal ultrasound were ordered to determine the size of the didelphic uterus, the size of the existing fibroids, and to exclude malignancy of the endometrium. The transvaginal ultrasound performed prior to the hysterectomy showed the whole uterus measuring 9.8x9x9.4cm with a volume of 437mL. The right uterus measured 9.7x9.1x7.2cm and contained a large lateral fibroid measuring 7.2x6.5x6.5cm. The left uterus measured 9x4.5x4.3cm and contained a small fundal fibroid less than 2cm. Speculum examination revealed 2 cervices.


Right Uterus
+ large fibroid
Left Uterus
+ small fibroid
Fused
portion of
bilateral
uteri
TWO
CERVICES

THINGS NOT TO DO

1. Don’t toil with something that doesn’t work; keep moving and trying something different.
2. Don’t be afraid to convert
3. Don’t get married to an order of events



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