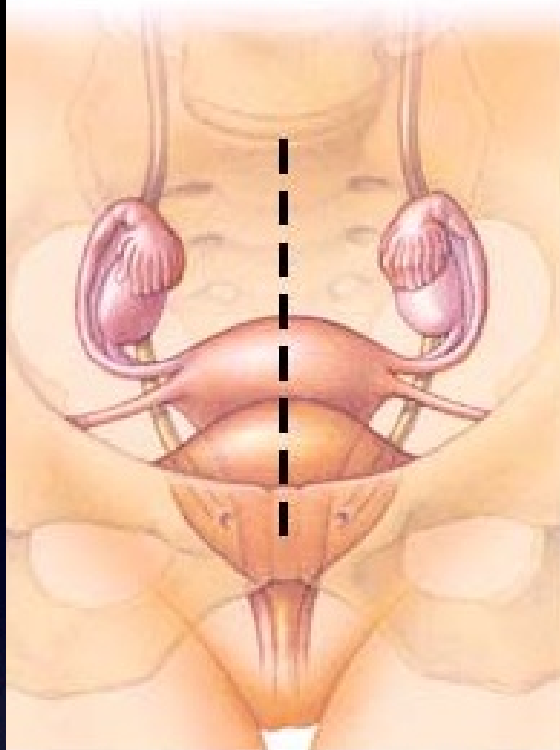


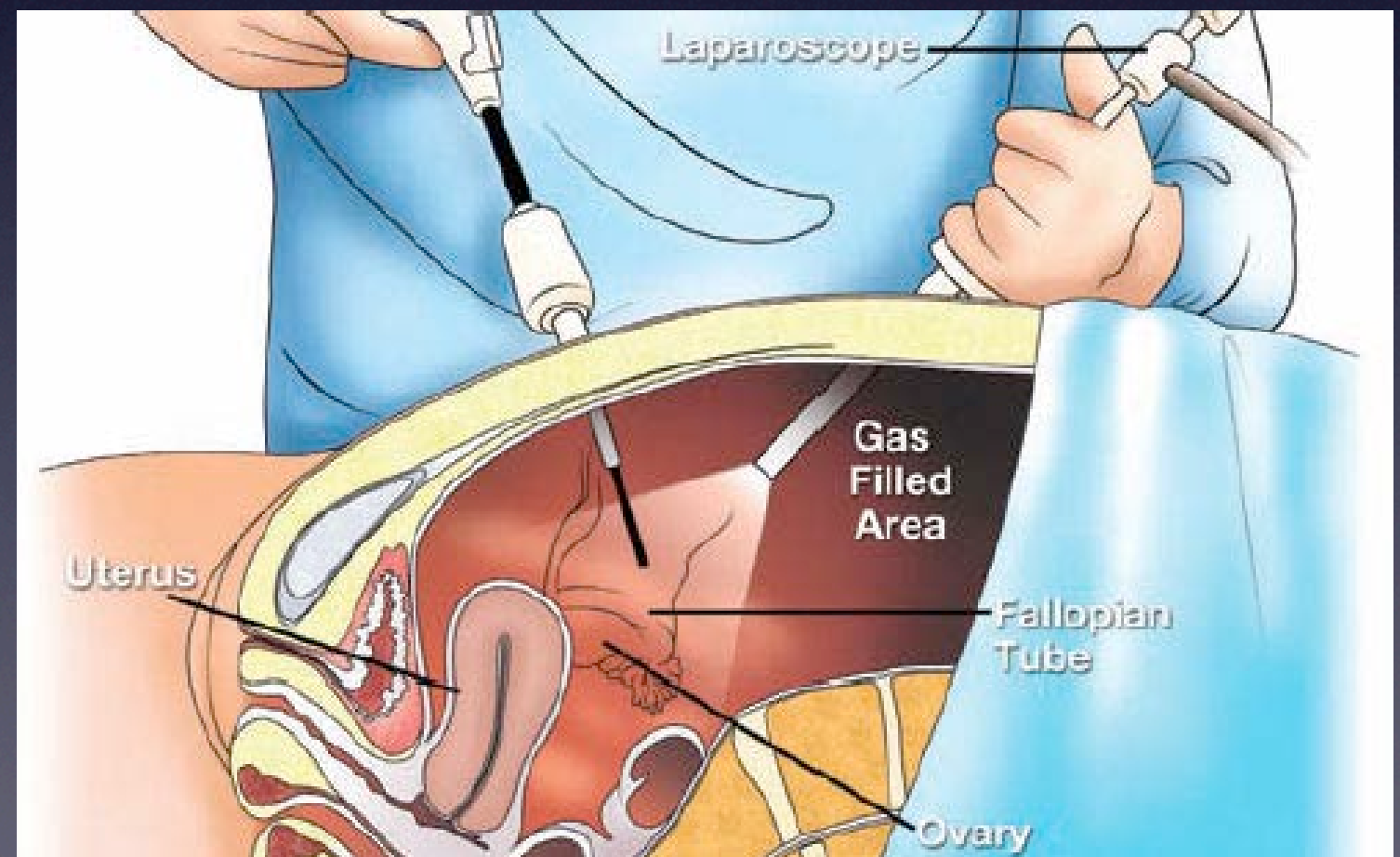
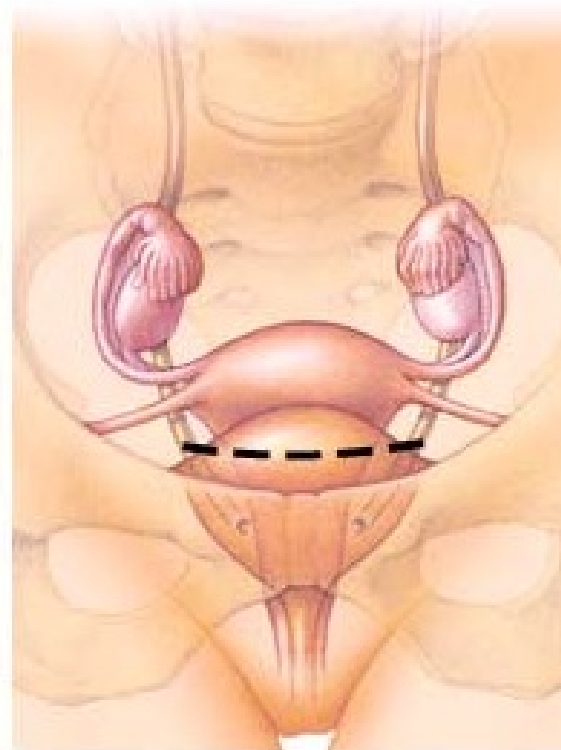
# Medico-legal issues in laparoscopic gynaecological surgery

Mr Sanjay Vyas MD FRCOG  
Consultant Gynaecologist & Laparoscopic Surgeon  
Southmead Hospital  
Bristol

Vertical incision



Pfannenstiel's incision

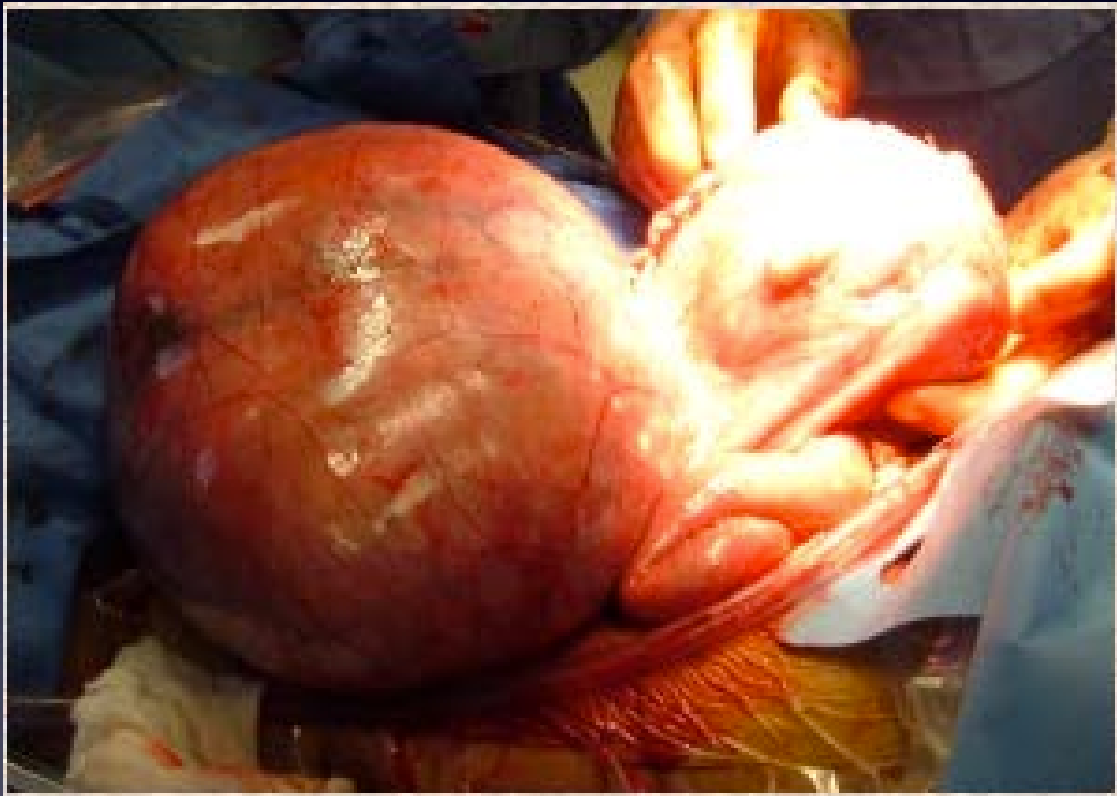








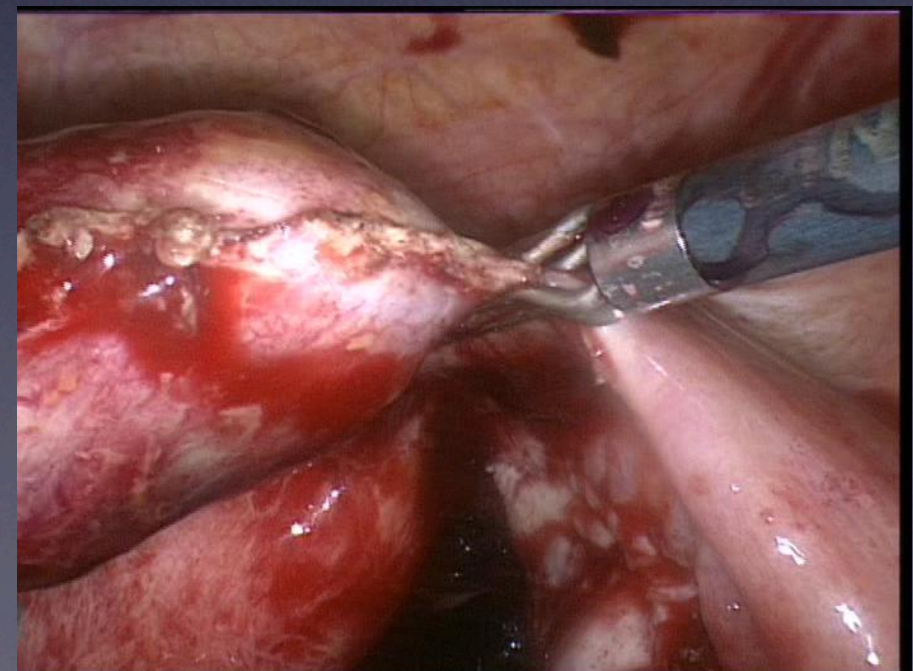
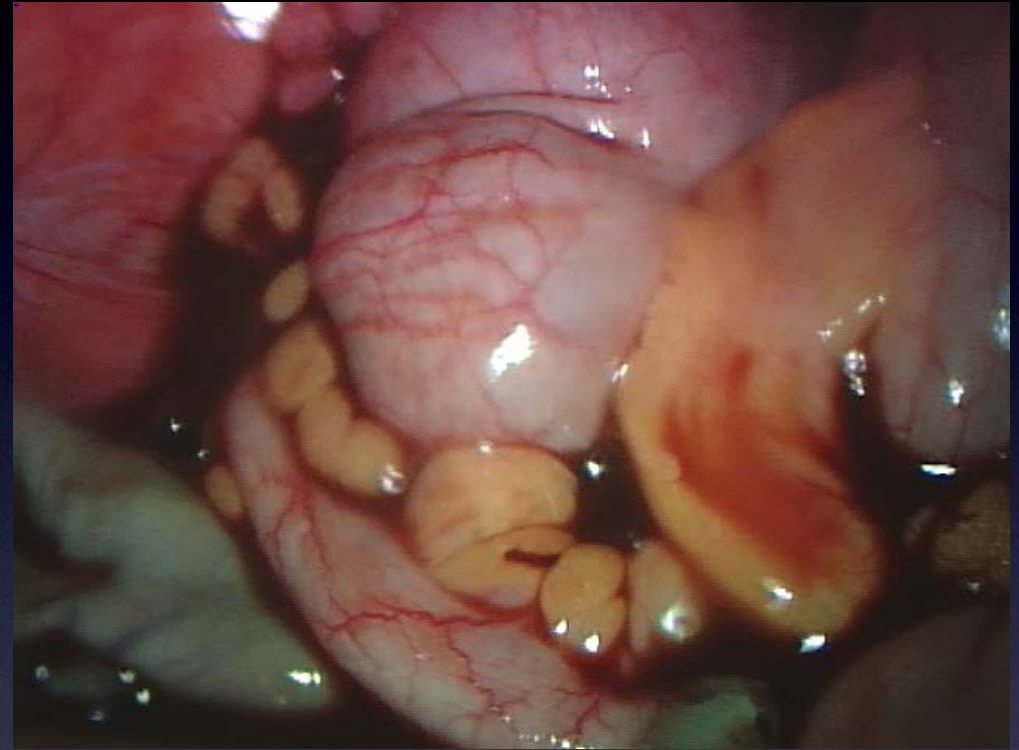
# What can't we do laparoscopically?





# Laparoscopic surgery

- Short hospital stay
- Reduced analgesics
- Quicker recovery
- Reduced adhesions
- Better visualisation
- More precision



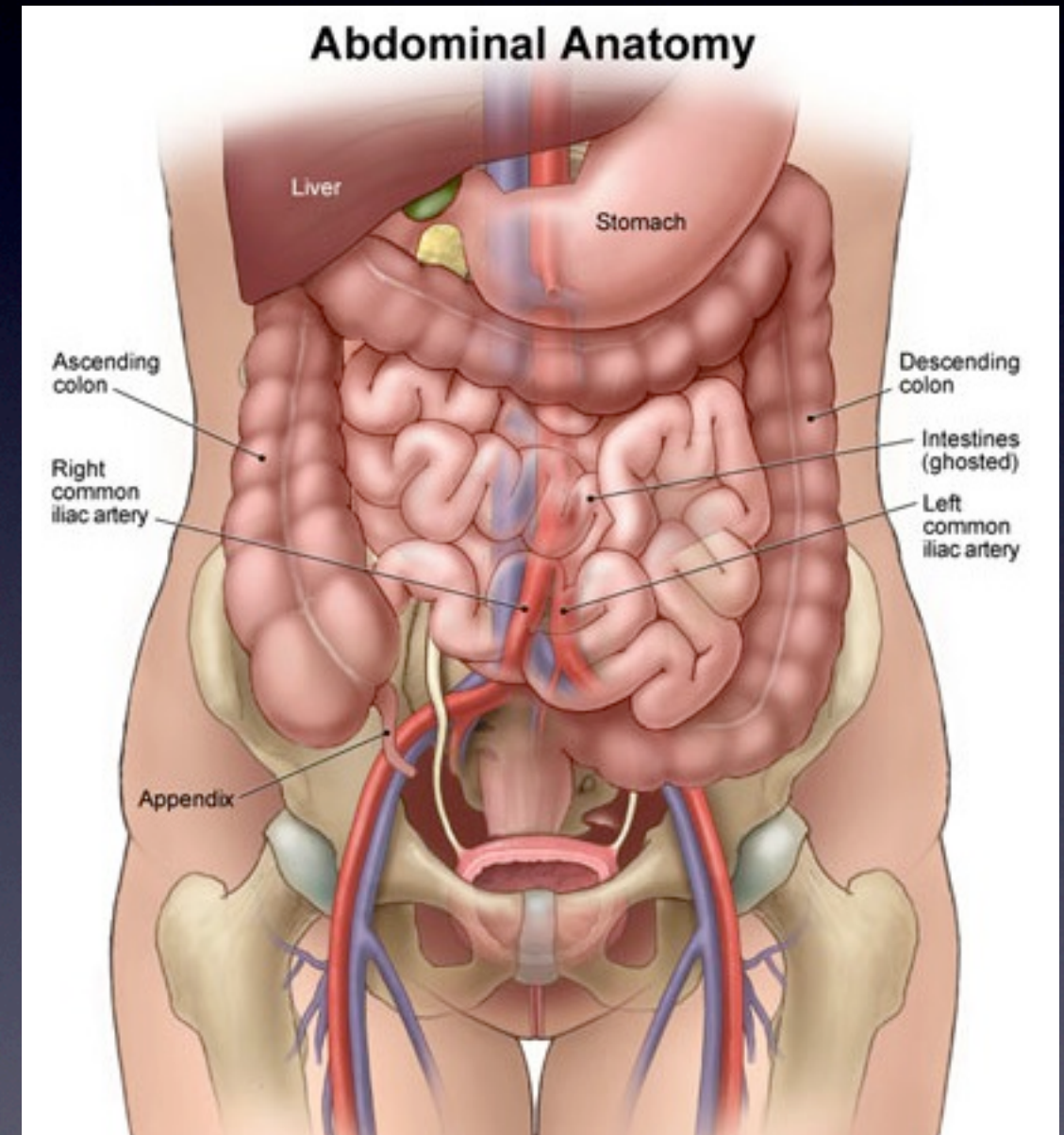
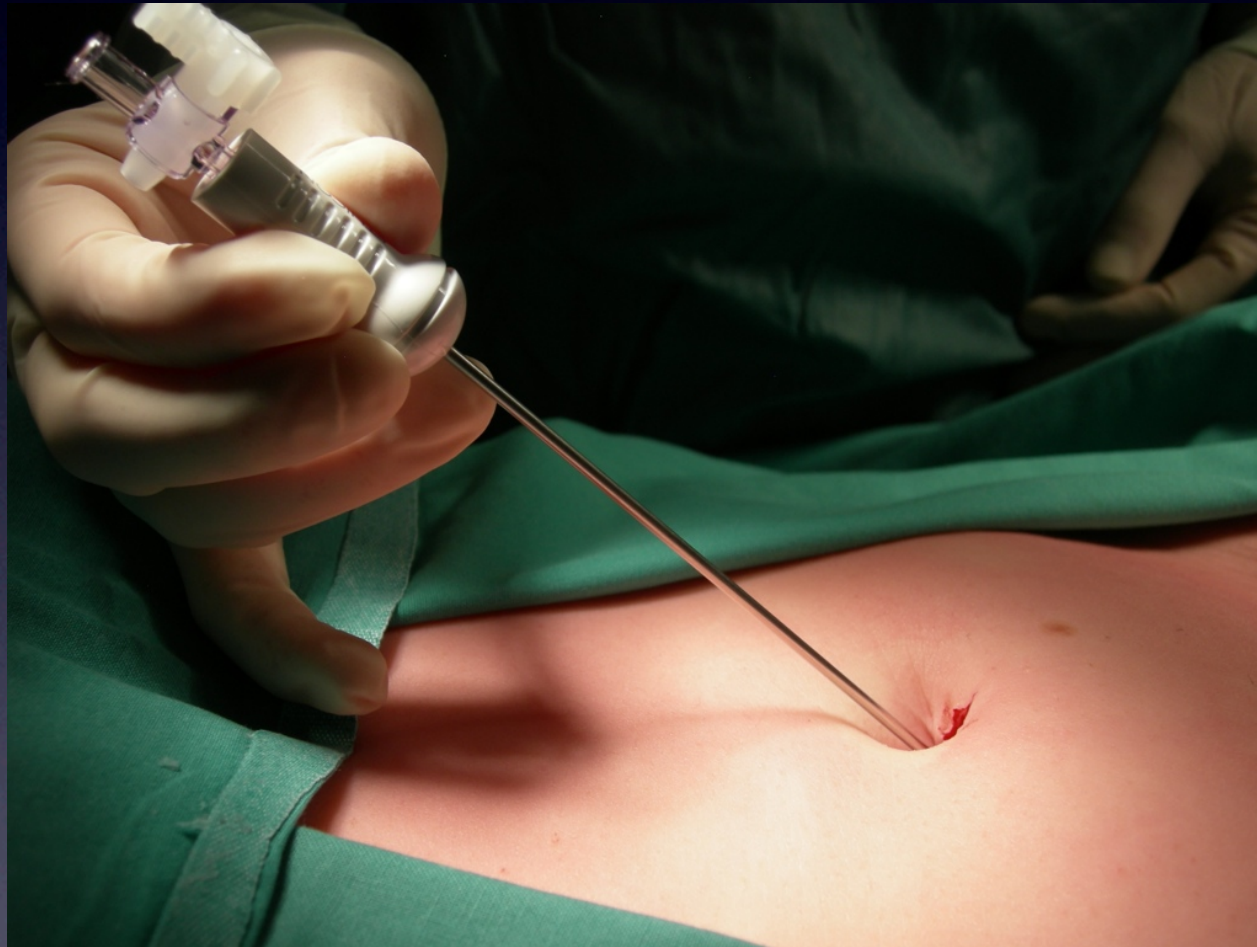


# The operation

- Entry
- The procedure
- Recovery
- Recognition of complications

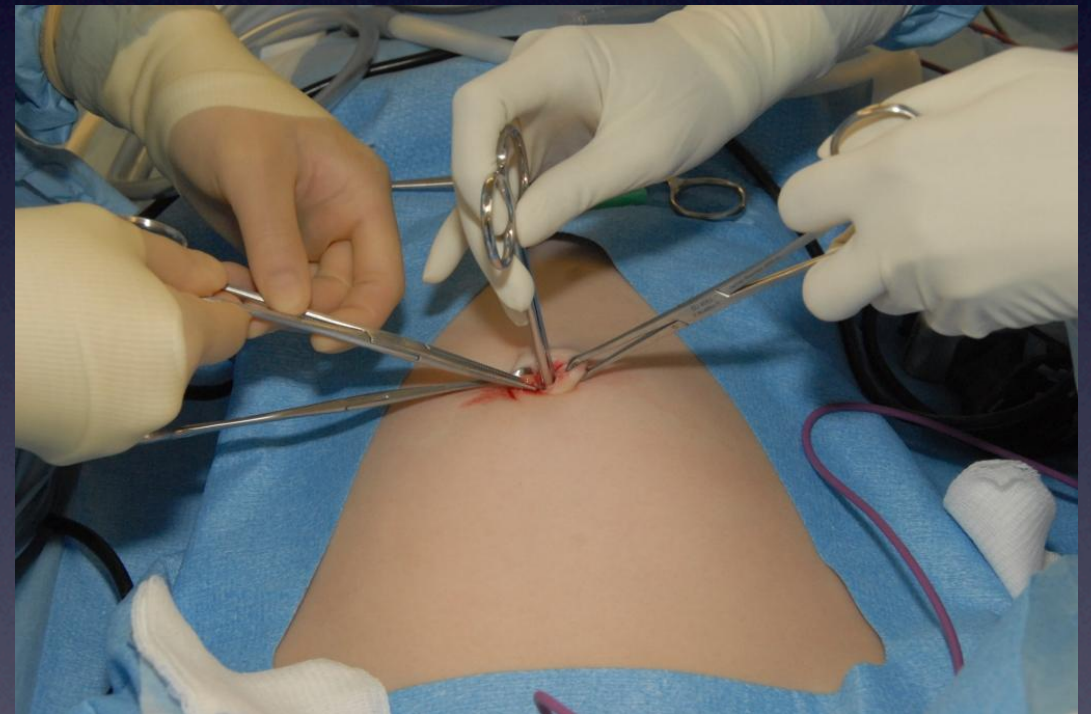
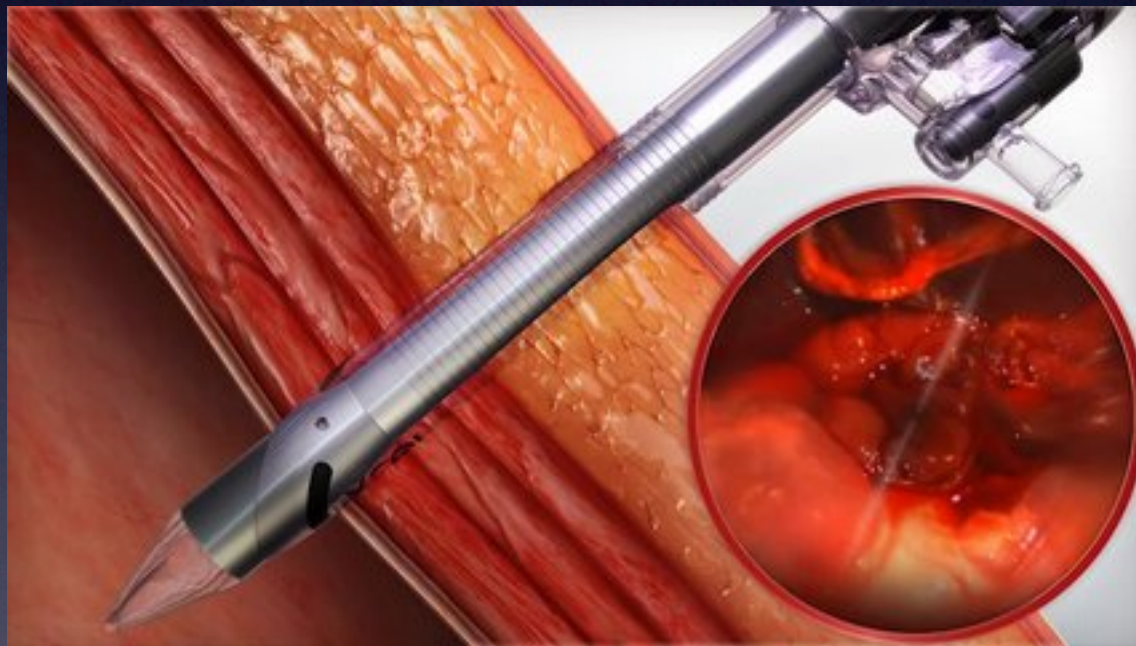


# Entry is blind





# Entry variations







Royal College of  
Obstetricians and  
Gynaecologists

Setting standards to improve women's health

Green-top Guideline  
No. 49  
May 2008

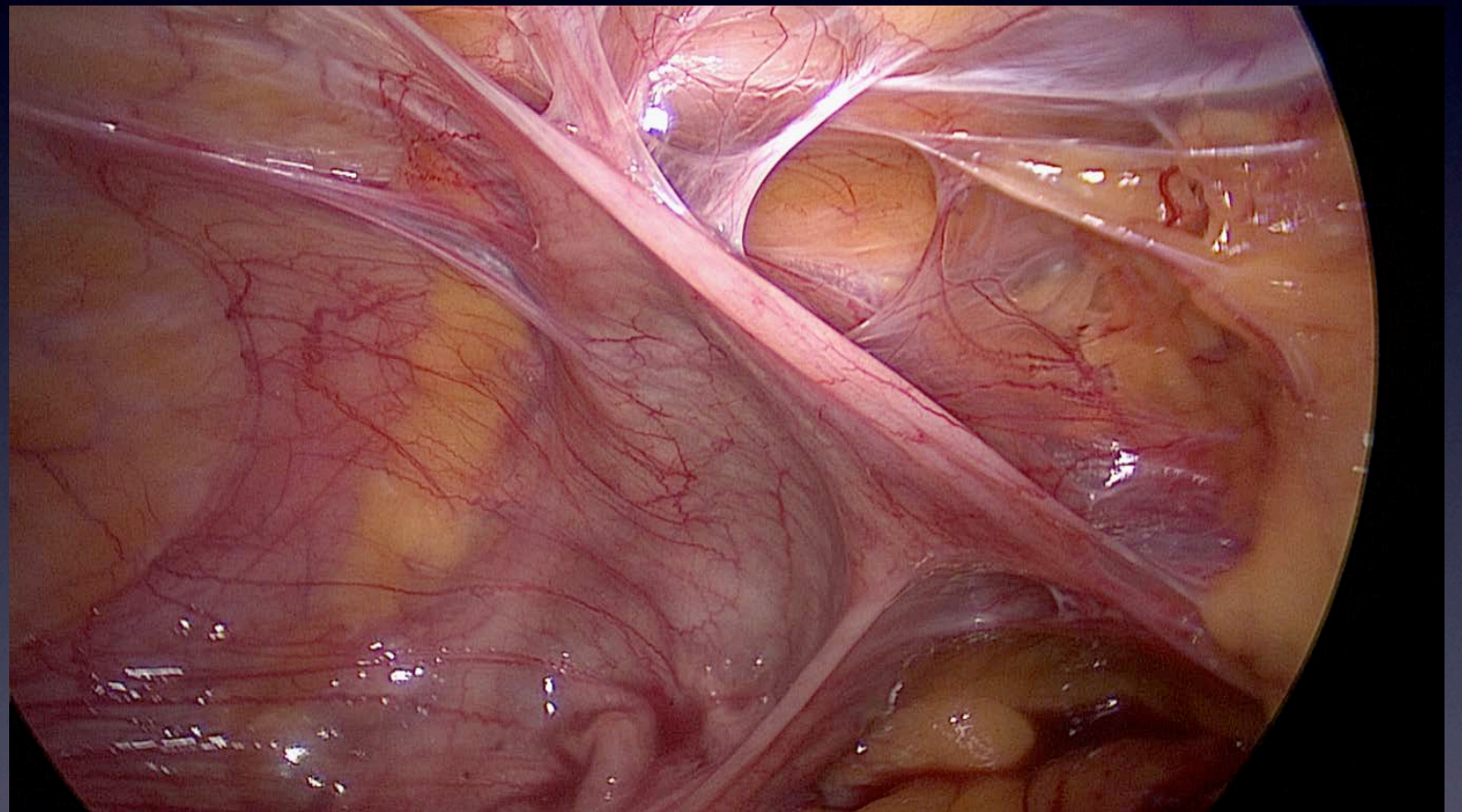
**PREVENTING ENTRY-RELATED GYNAECOLOGICAL LAPAROSCOPIC INJURIES**

“Two randomised trials have compared the open and closed entry techniques. A meta-analysis does not indicate a significant safety advantage to either technique.”



# High risk patients

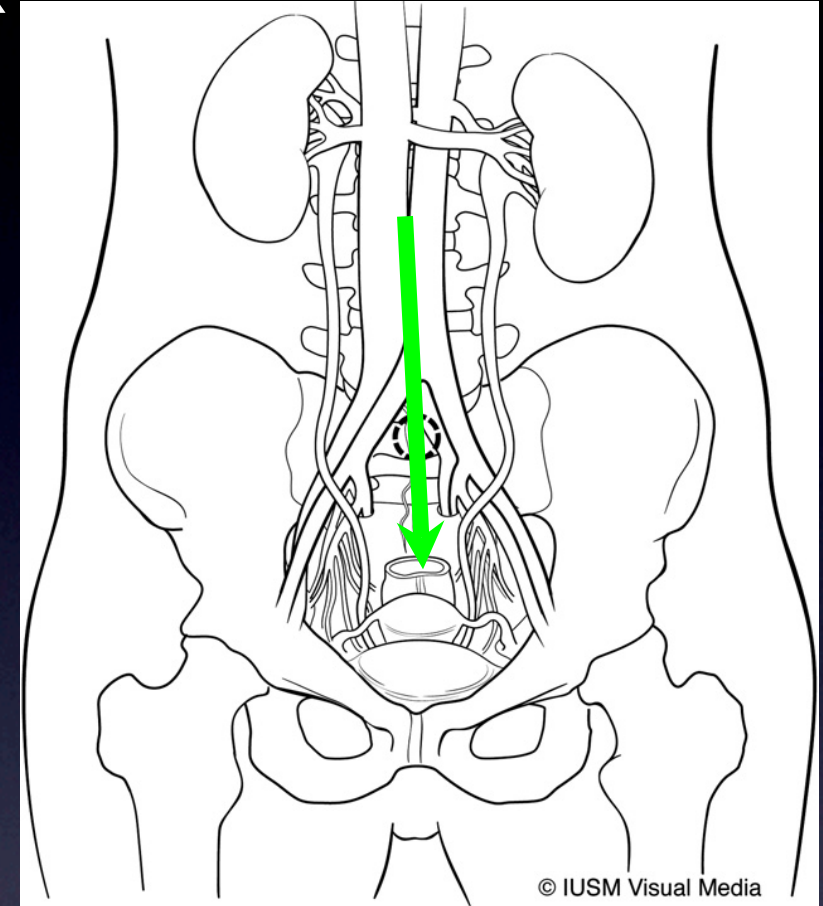
- Slim
- Obese
- Previous surgery
- Previous infection





# Managing risk

- Technique
- Recognise risk
- Palmer's point





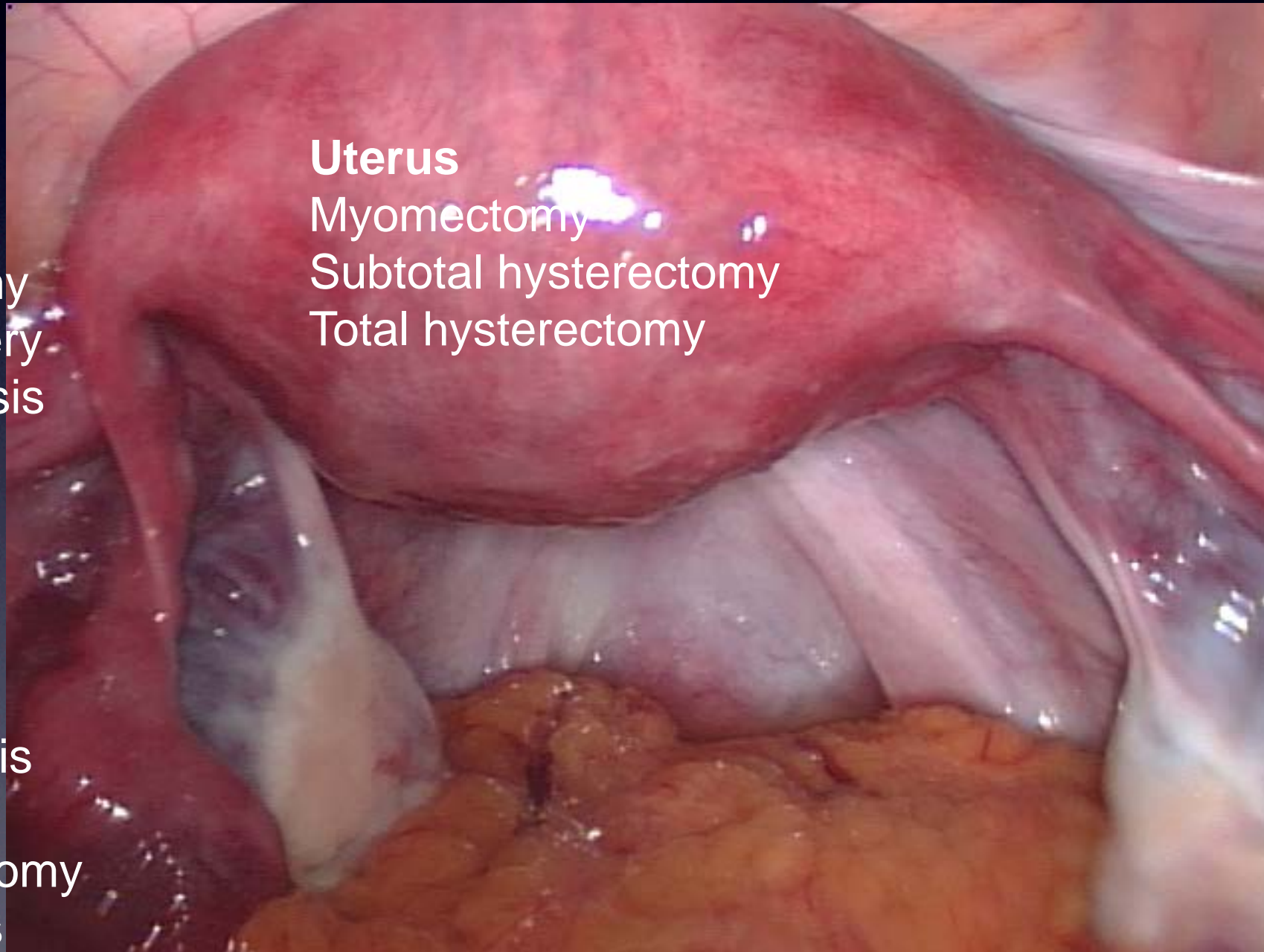
# The procedure

## Tube

Sterilisation  
Saplingectomy  
Fertility surgery  
Reanastamosis

## Other

Endometriosis  
Adhesiolysis  
Appendicectomy  
Suspensions



## Uterus

Myomectomy  
Subtotal hysterectomy  
Total hysterectomy

## Ovary

Cystectomy  
Drain cyst  
Oophorectomy  
Drilling

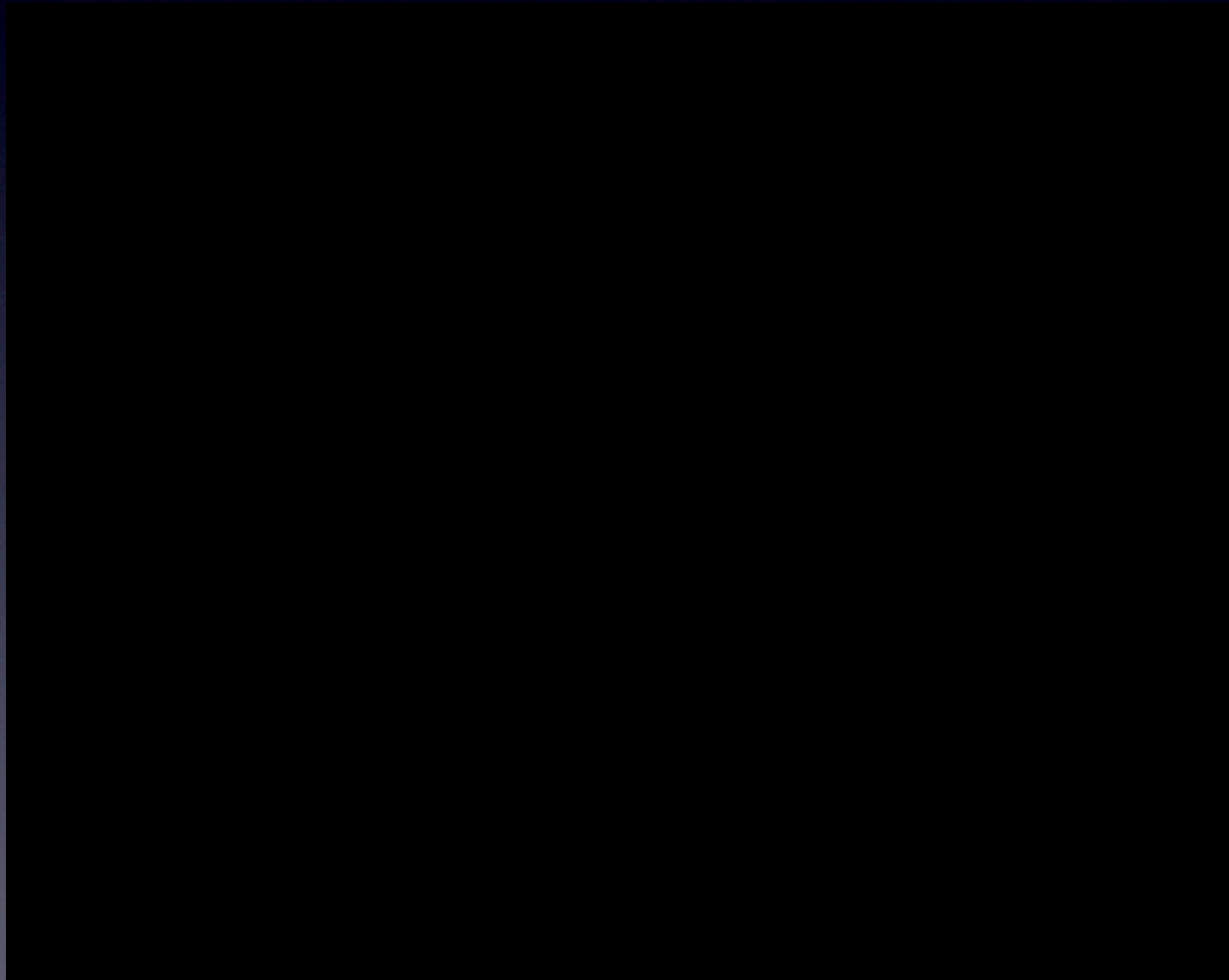


# Instruments

- Sharp instruments
  - Cut
- Energy sources
  - Coagulate and cut

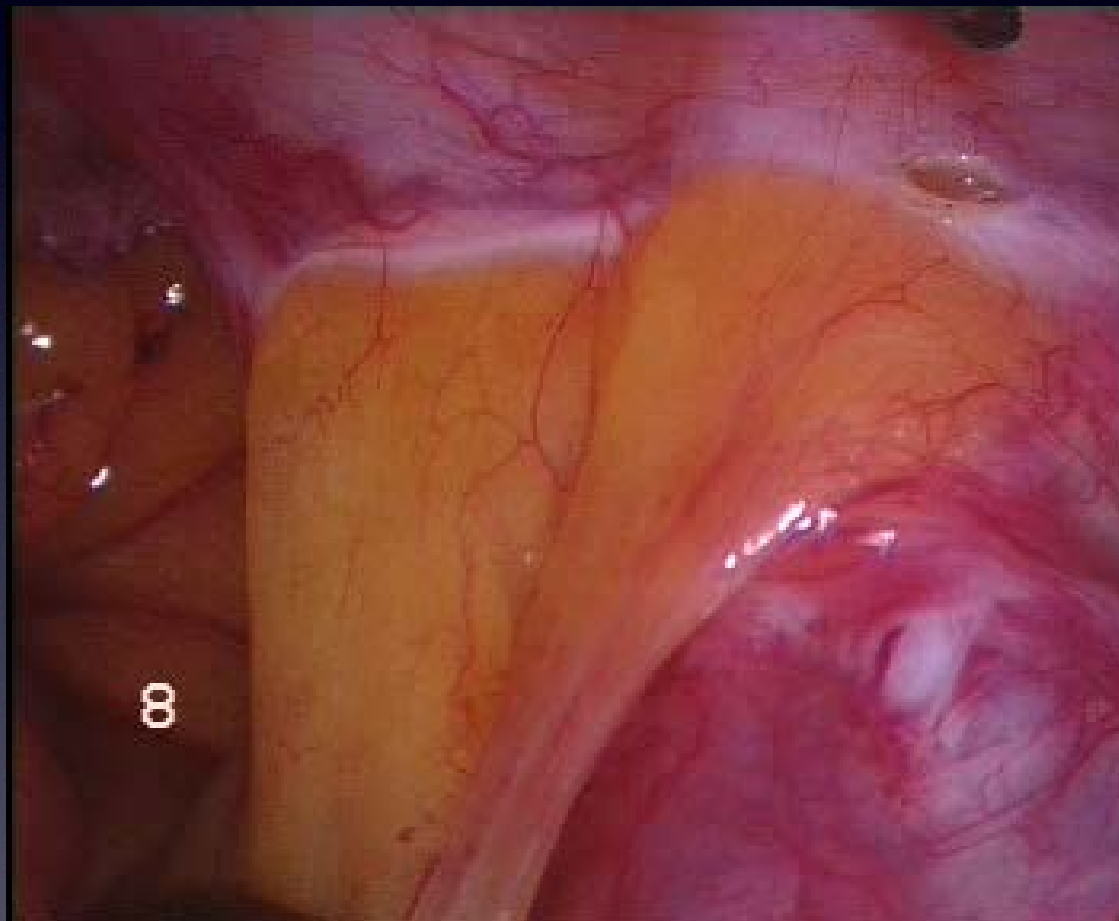


# Scissors



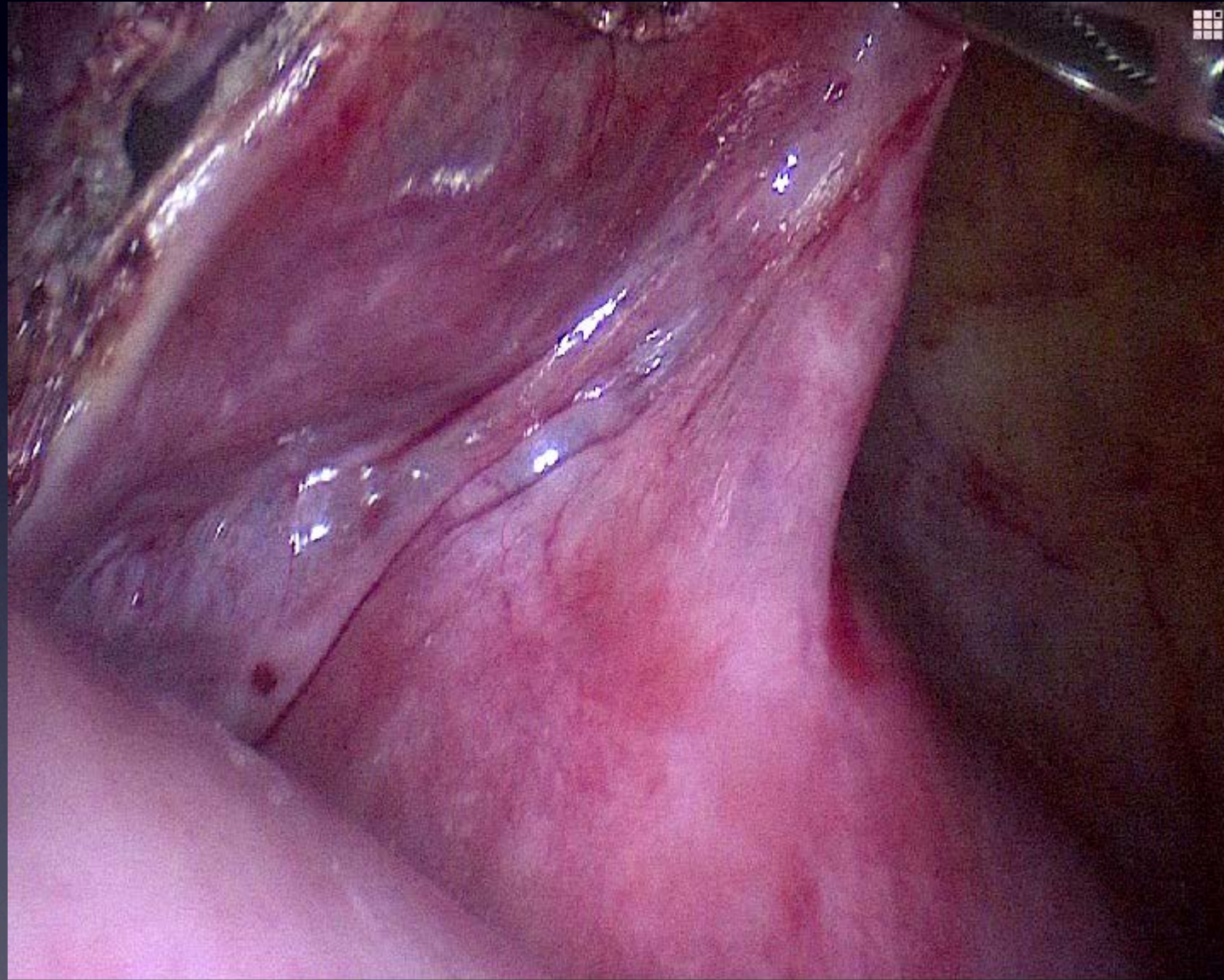


# Diathermy



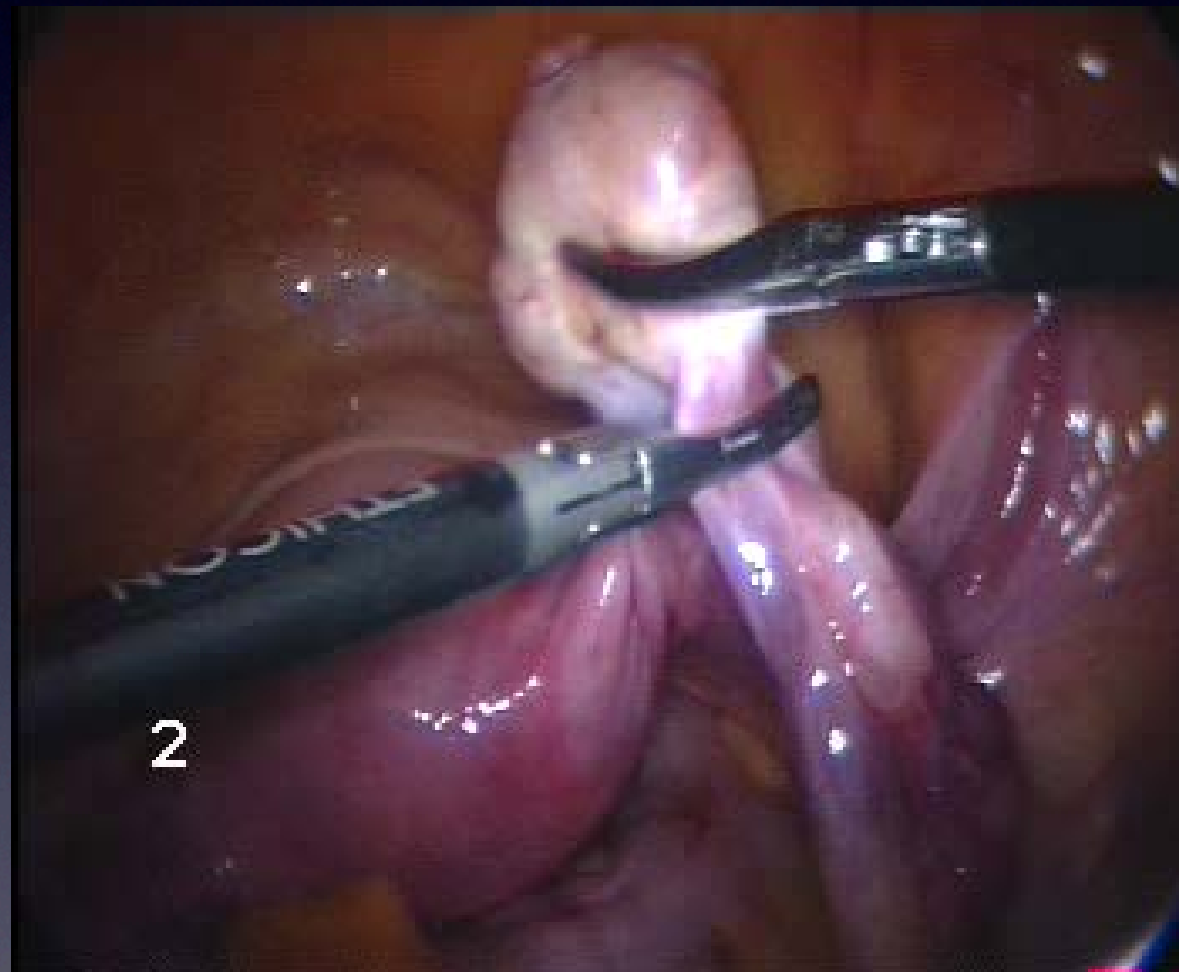


# Tripolar





# Ultrasonic





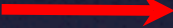


# Problems

- Cut the wrong thing
- Thermal damage
  - direct
  - collateral
  - on camera
  - off camera



# Recovery

- Pain 
- Mobility 
- P, BP, Temp, RR 
- Pass urine
- Open bowels
- Eat & drink



# Complications

**TABLE 2. Types of Complications in Gynecologic Laparoscopic Surgery**

Author (year)	Patients (no)	Complications (%)				
		Intestinal	Urinary	Hernia	Major Vascular	Other
Levy et al, <sup>16</sup> 1994	74,545	0.3	0.3	NA	NA	NA
Saidi et al, <sup>8</sup> 1996	452	0.4	1.7	0	1.0*	6.8†
Härkki-Siren and Kurki, <sup>9</sup> 1997	70,607	0.06	0.03	NA	0.01	NA
Jansen et al, <sup>5</sup> 1997	25,764	0.1	0.02	0.08	0.1	NA
Chapron et al, <sup>10</sup> 1998	29,966	0.1	0.1	NA	0.1	—
Mac Cordick et al, <sup>11</sup> 1999‡	743	0.1	0.5	0.1	0.1	NA
Mirhashemi et al, <sup>12</sup> 1998	843	0.5	0.3	NA	0.2	0.9
Härkki-Siren et al, <sup>13</sup> 1999	32,205	0.07	0.2	0.03	0.01	0.05
Quasarano et al, <sup>14</sup> 1999‡	234	0	0.4	NA	0.4	8.1§
Leonard et al, <sup>15</sup> 2000	1,033	0.2	0.3	0.09	0.09	2.0
Total	236,392					

NA = not applicable. \* Includes uterine (artery) bleeding. † Includes urinary tract infection. ‡ Prospective data. § Includes ileus.



# Complications

- Pain
- Mobility
- P, BP, Temp, RR
- Pass urine
- Open bowels
- Nausea / vomit





# Rapid Response Report NPSA/2010/RRR016

## Laparoscopic surgery: failure to recognise post-operative deterioration

September 2010

### Supporting information

The presence of the following symptoms during the second 12 hour period after completion of surgery has been suggested as indicative of a post-operative complication:

- abdominal pain needing opiate analgesia;
- anorexia or reluctance to drink;
- reluctance to mobilise;
- nausea;
- vomiting;
- tachycardia;
- abdominal tenderness;
- abdominal distension;
- poor urine output;
- cardiac arrhythmia.



# Suspected complication

- Senior review
- Multi-disciplinary review
- Imaging (US, CT, MRI, IVU)
- FBC, CRP, U & E



# Late diagnosis of damage

- Vascular 20%
- Bowel 42%
- Ureter & bladder 24%

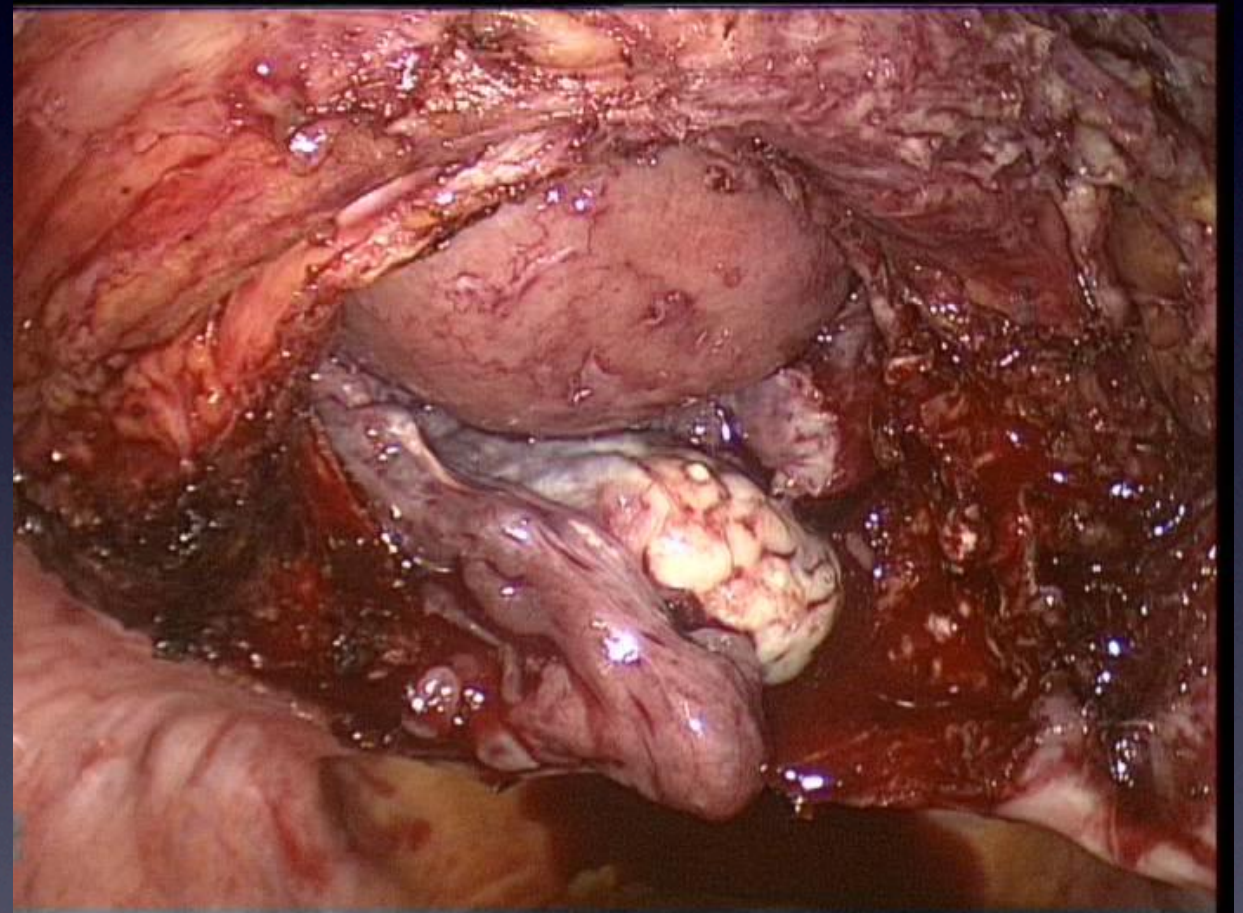


# Cases



# Mrs A

- TLH
- Day 1 - 3 pain ++





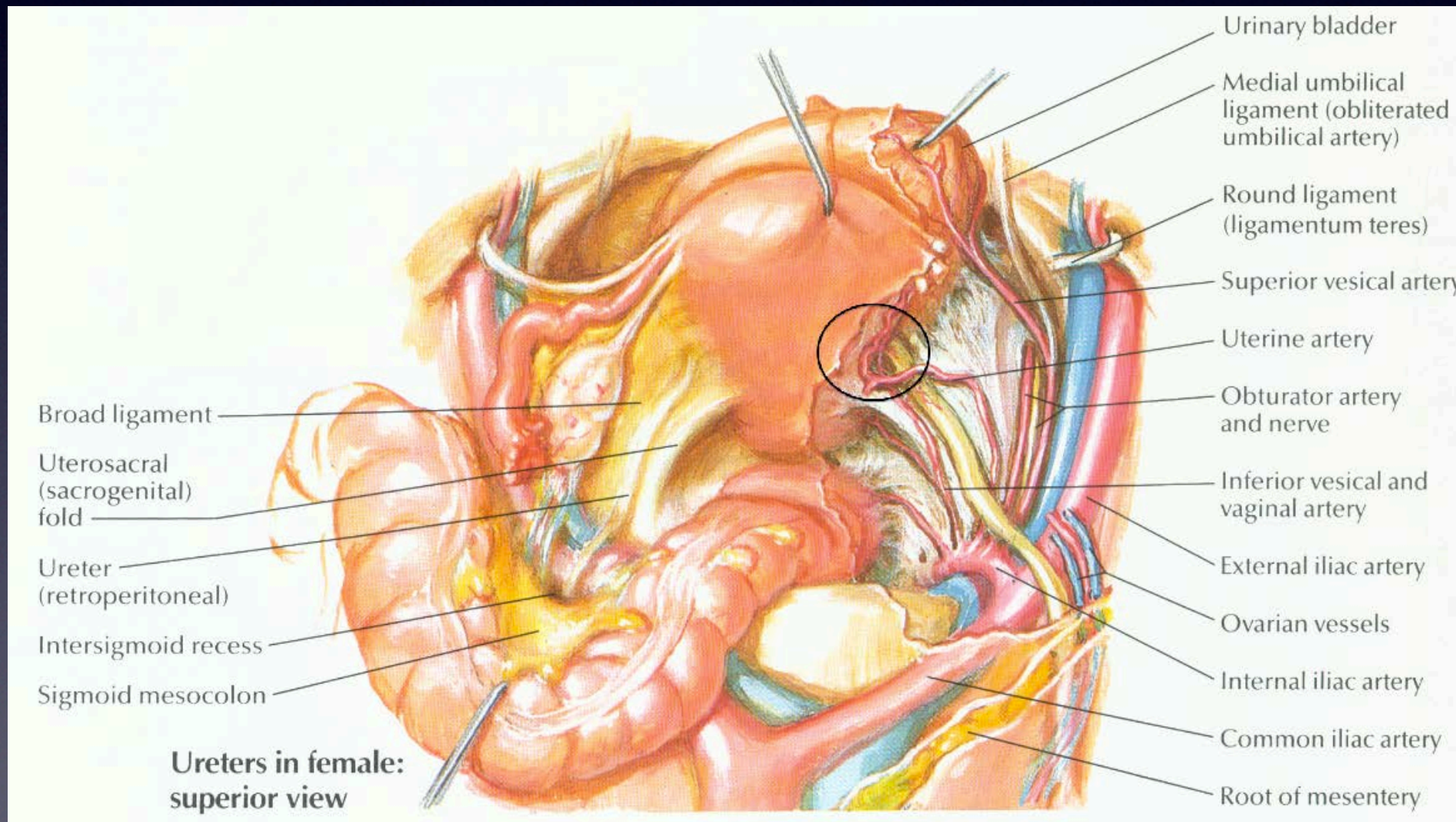
# Mrs A

- Day 3
  - Imaging - obstructed right ureter
  - Cystoscopy - stitch close to UO
  - Failed insertion of stent
  - Nephrostomy
- Day 17 - ureteric reimplantation



# Mrs A opinion

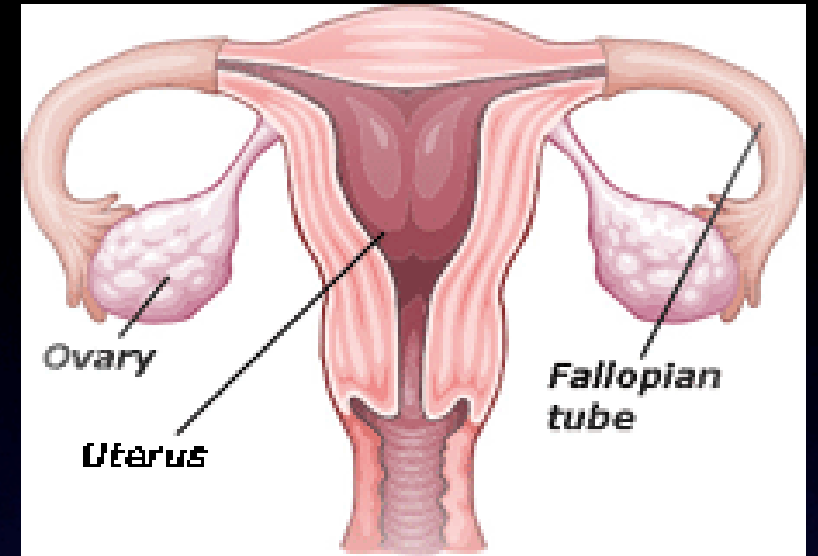
- BOD - bladder dissection inadequate





# Mrs B

- Laparoscopic sterilisation
- Right tube clipped
- Poor access to left tube, clip dropped
- Another surgeon called, port repositioned
- Left tube clipped, dropped clip left in place
- Readmitted very ill on day 2
- Necrotising fasciitis





# Mrs B

- Laparotomy - NAD
- Debridement
- ITU, prolonged recovery

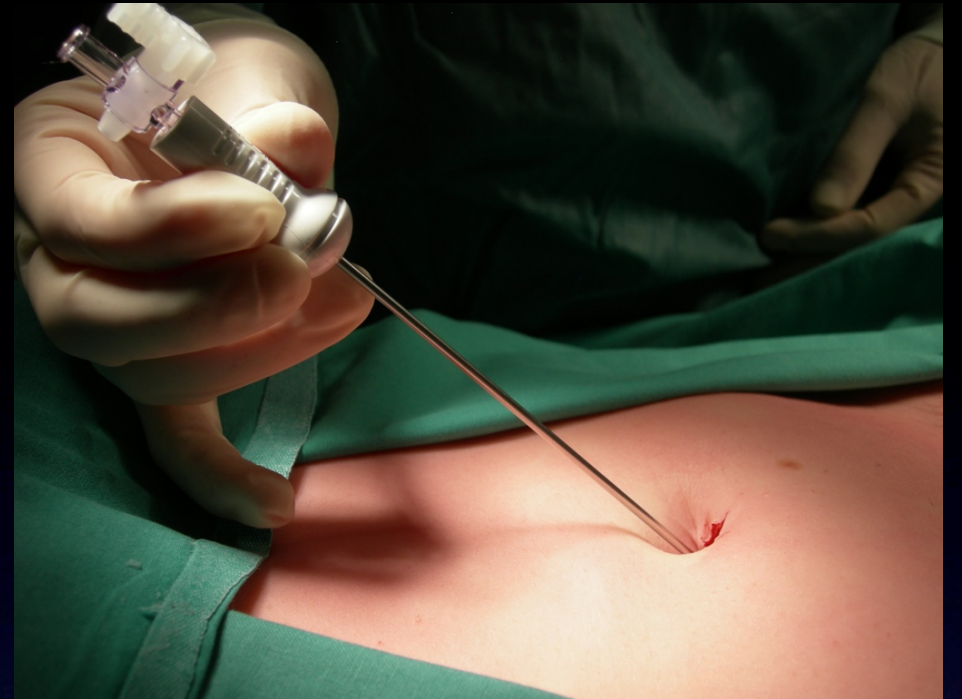


# Mrs B

- Recognised risk
  - Dropped clip & left in
  - Port site changes
  - Infection
- No BOD



# Mrs C



- Laparoscopic removal of ectopic pregnancy
  - Verres, then trocar for pneumo
  - Short lived BP drop
  - Verres reinserted at end of procedure



# Mrs C

- 2 hrs later - in recovery
  - BP low
  - Hb dropped
  - Mass in RIF



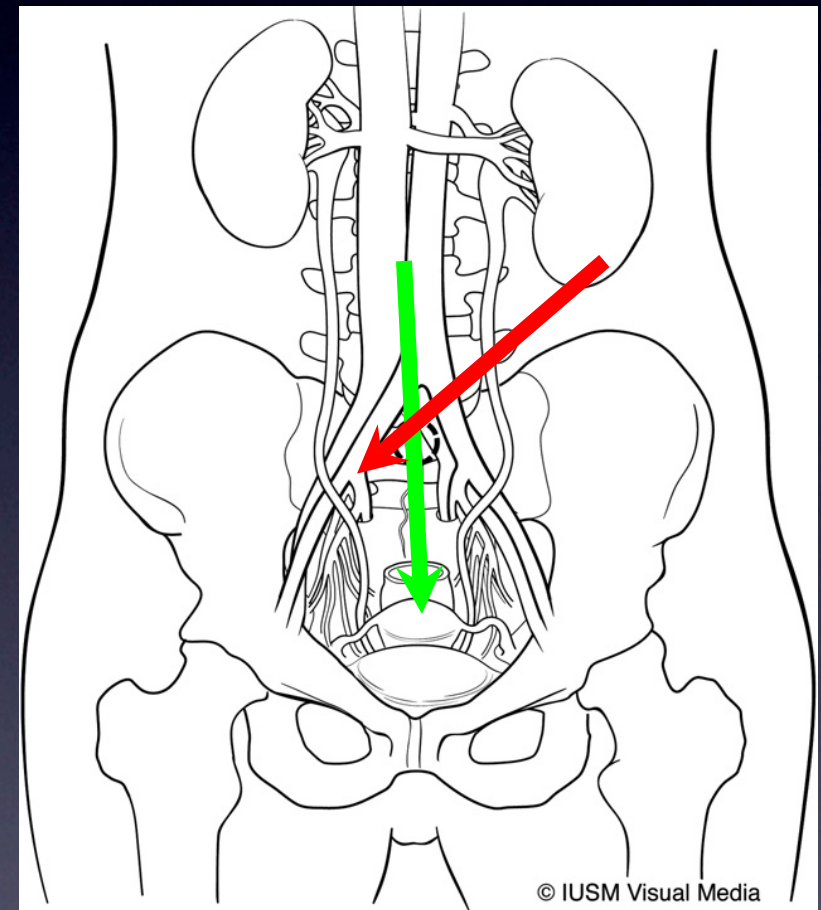
# Mrs C

- Laparotomy for suspected vascular injury
  - Mass = massive retro-peritoneal haematoma
  - Gen surgeon - mass ruptured
  - Massive haemorrhage
  - Intensive resuscitation
  - CVP in artery
  - Post -op stroke diagnosed
  - Severe disability



# Mrs C opinion

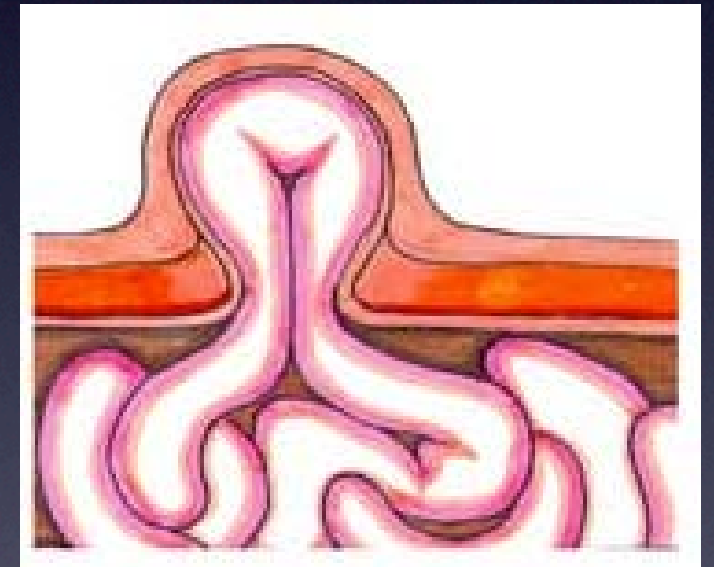
- BOD - failed to ensure instrument insertion away from major blood vessels + unnecessary instrumentation
  - ? technique of insertion of CVP





# Mrs D

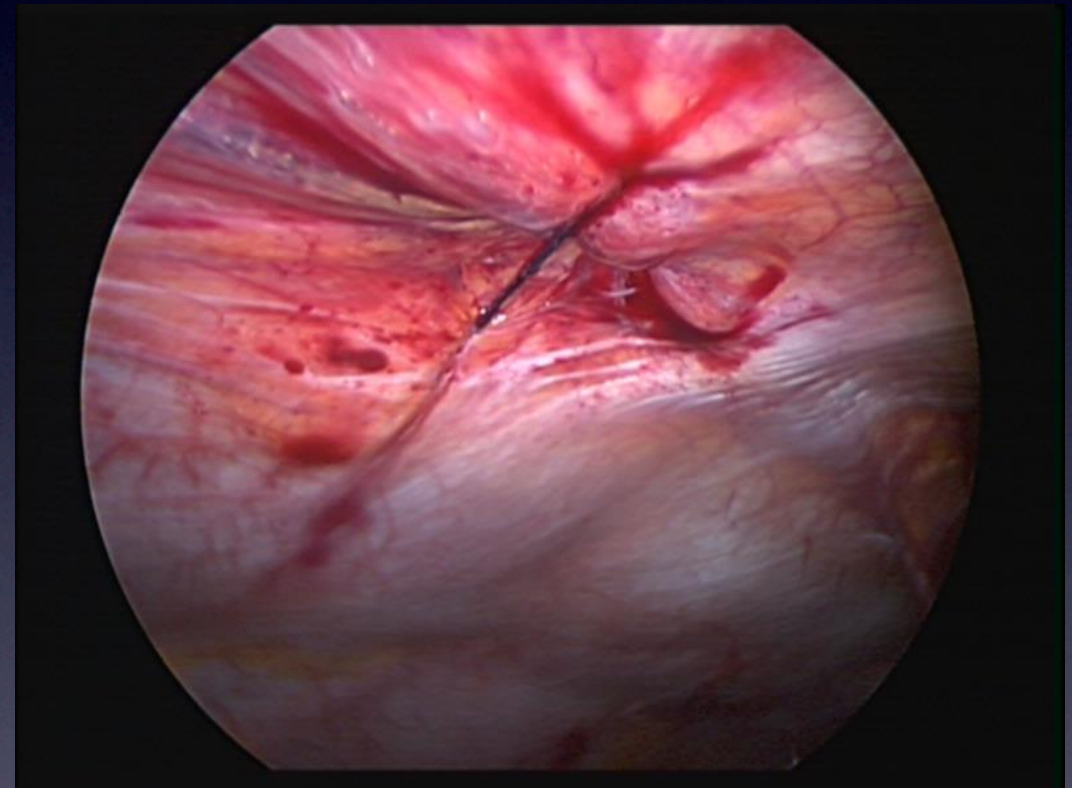
- Laparoscopic ovarian cystectomy
  - 10 mm lateral port
- Re-admitted day 5
  - Nausea, vomiting
  - Dehydrated
  - Deranged U & E
  - CT = port site hernia





# Mrs D opinion

- No BOD
  - Substantial number of surgeons do not suture port sites





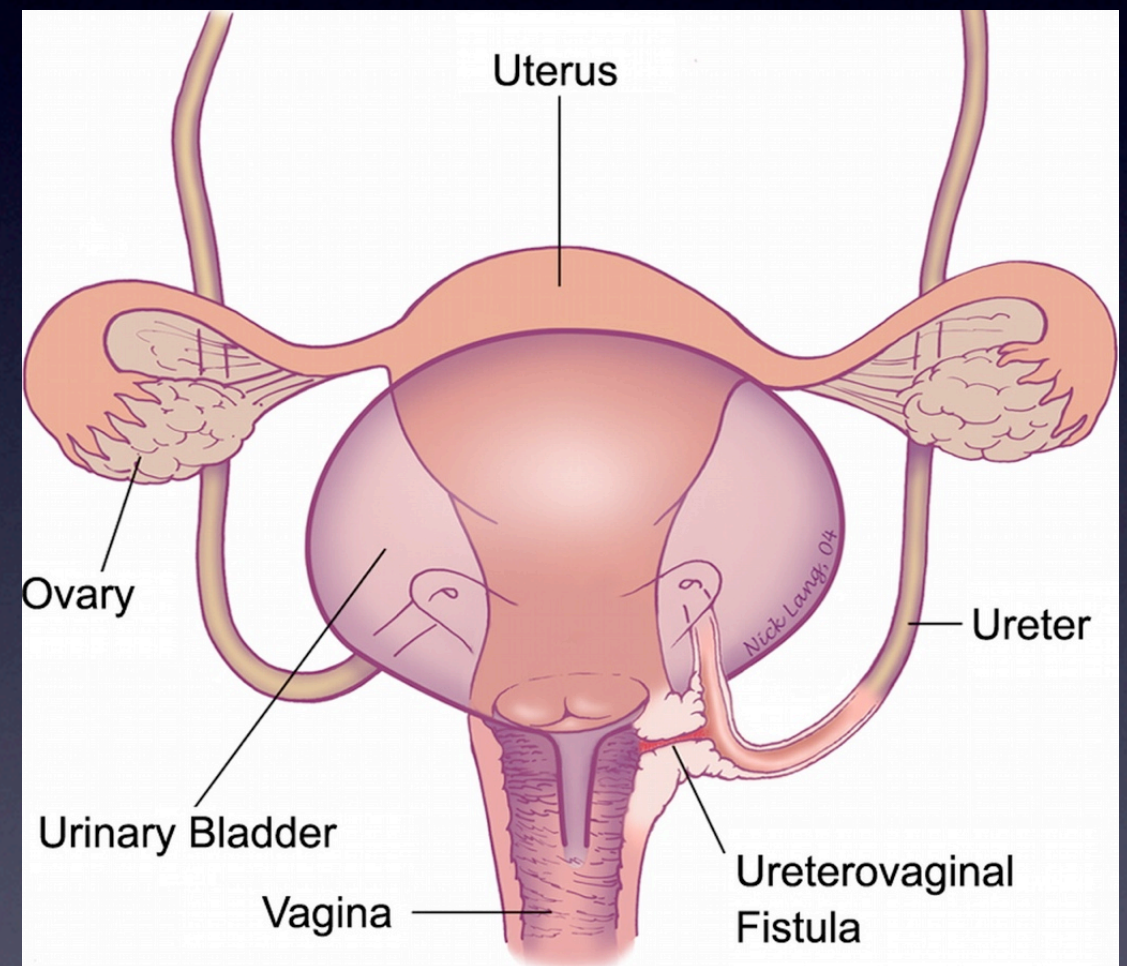
# Mrs E

- Total laparoscopic hysterectomy
- Consent
  - injury to bladder, bowel, ureter....
- Bipolar diathermy



# Mrs E

- Day 12
- Leaking fluid pv
- Imaging = uv fistula
- Stent
- Healed





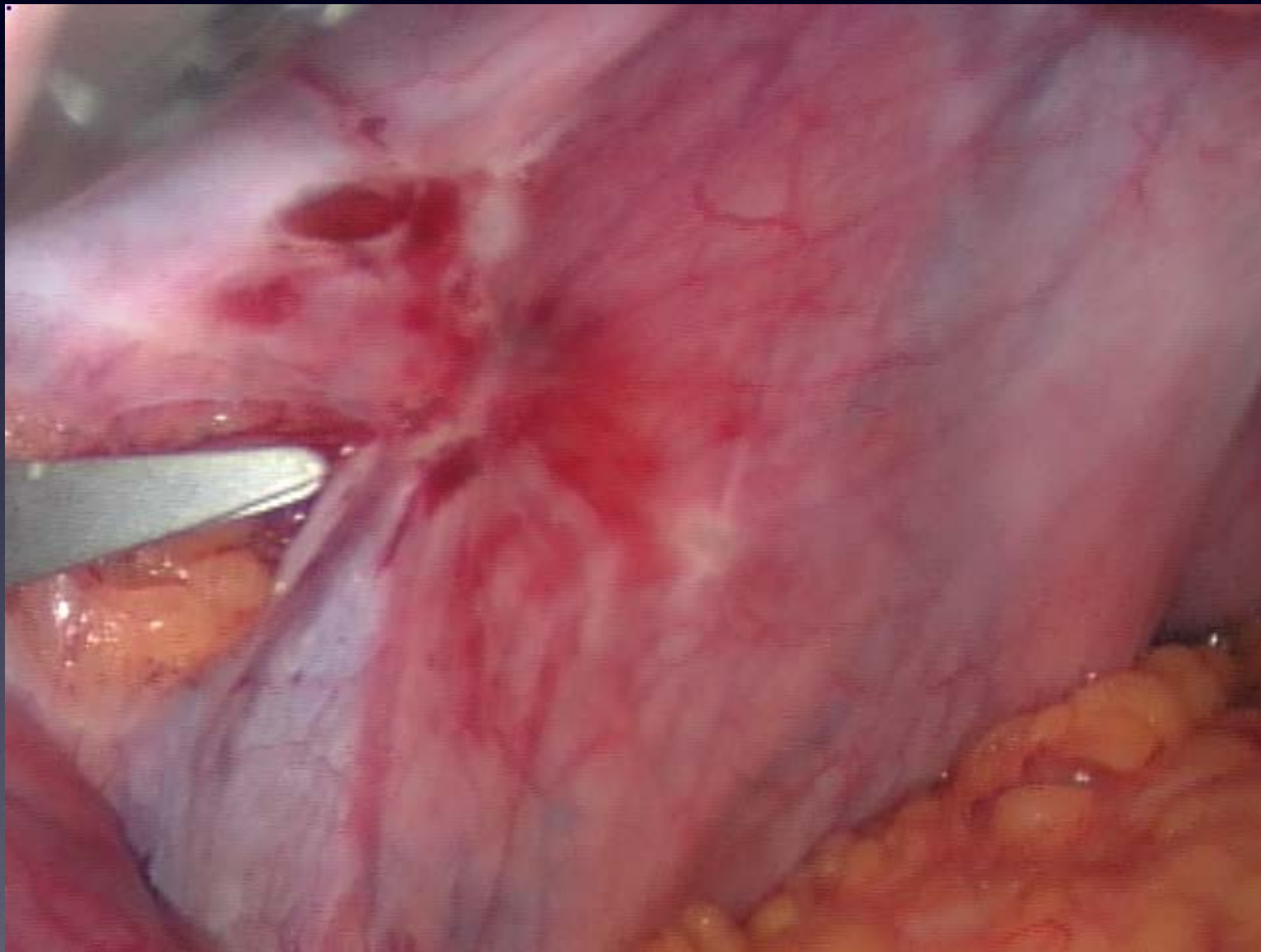
# Mrs E opinion

- Good consent
- Recognised technique
- Recognised complication
- Well managed
- No BOD



# Mrs F

- Laparoscopic excision of mild endometriosis





# Mrs F

- Readmitted day 5 - severe pain, guarding
  - ? faecal impaction
  - CT = free fluid
  - Day 7, pain, “unwell”
  - Laparotomy 1 - free fluid +++
  - Locum gynae reg = normal tubes and ovaries
  - Closed, drains x 2



# Mrs F

- Day 13
  - Drains +++
  - Unwell, shocked, coagulopathy
  - Laparotomy 2 - bleeding pelvic vein



# Mrs F

- ITU post-op
  - Drain biochemistry = urine
  - Imaging = ureteric leak
- Laparotomy 3 + insertion of stents
- Good recovery



# Mrs F opinion

- BOD
  - Failure to identify ureter
  - Delay diagnosis of ureteric damage



# Laparoscopic surgery

- Numbers will continue to increase
- Has recognised complications
- Delay in diagnosis can be an issue
- Overall is to patients benefit



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