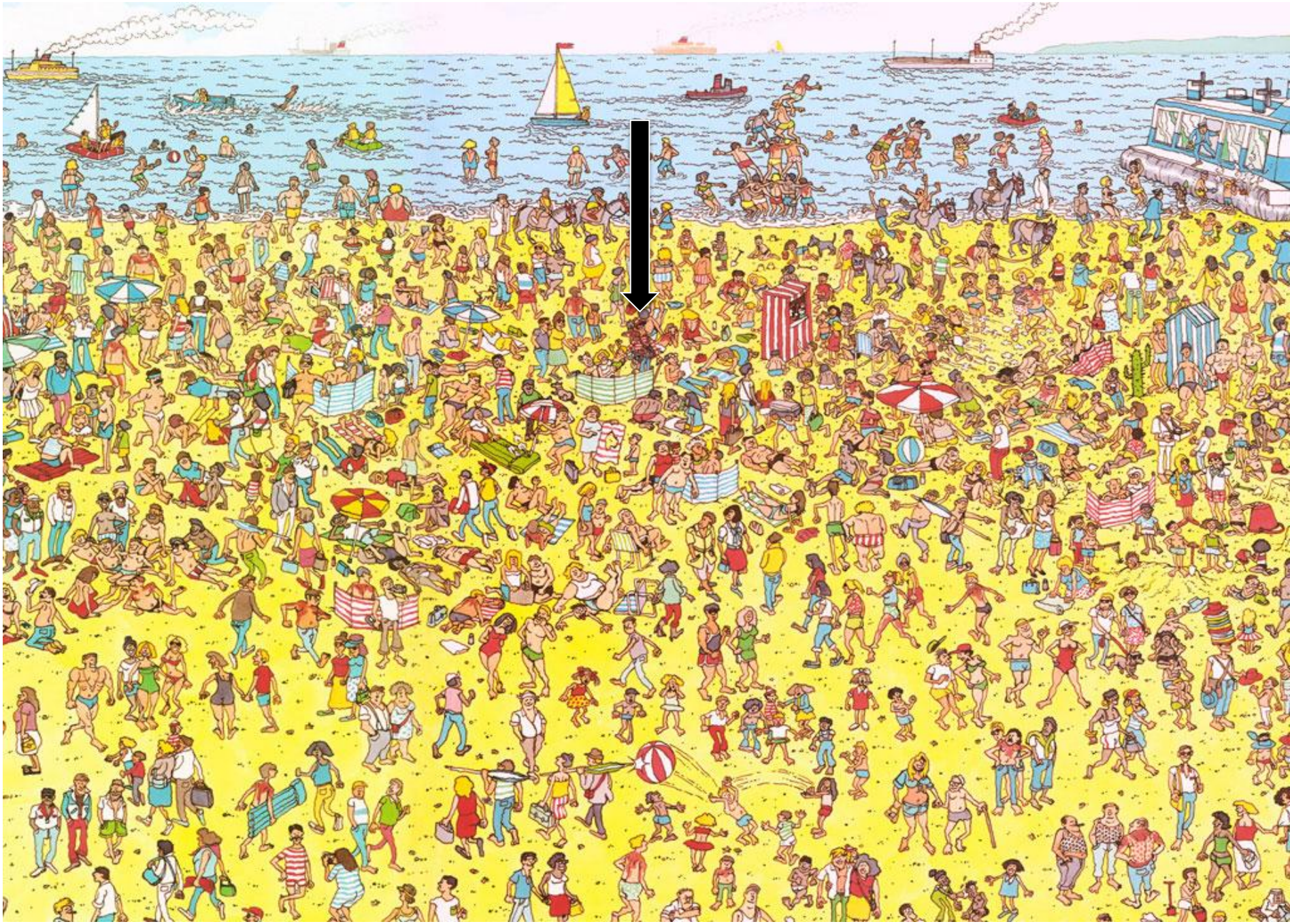
Gynaecological causes of Acute Abdomen

Carlos Pilasi Menichetti MD MSc
General surgeon/Trauma
Gynecologist& Obstetrician



APPROACH

- Pregnant
  - Pregnancy related
  - Non Pregnancy related
- Non pregnant
  - Gyneacological
  - Non Gyneacological

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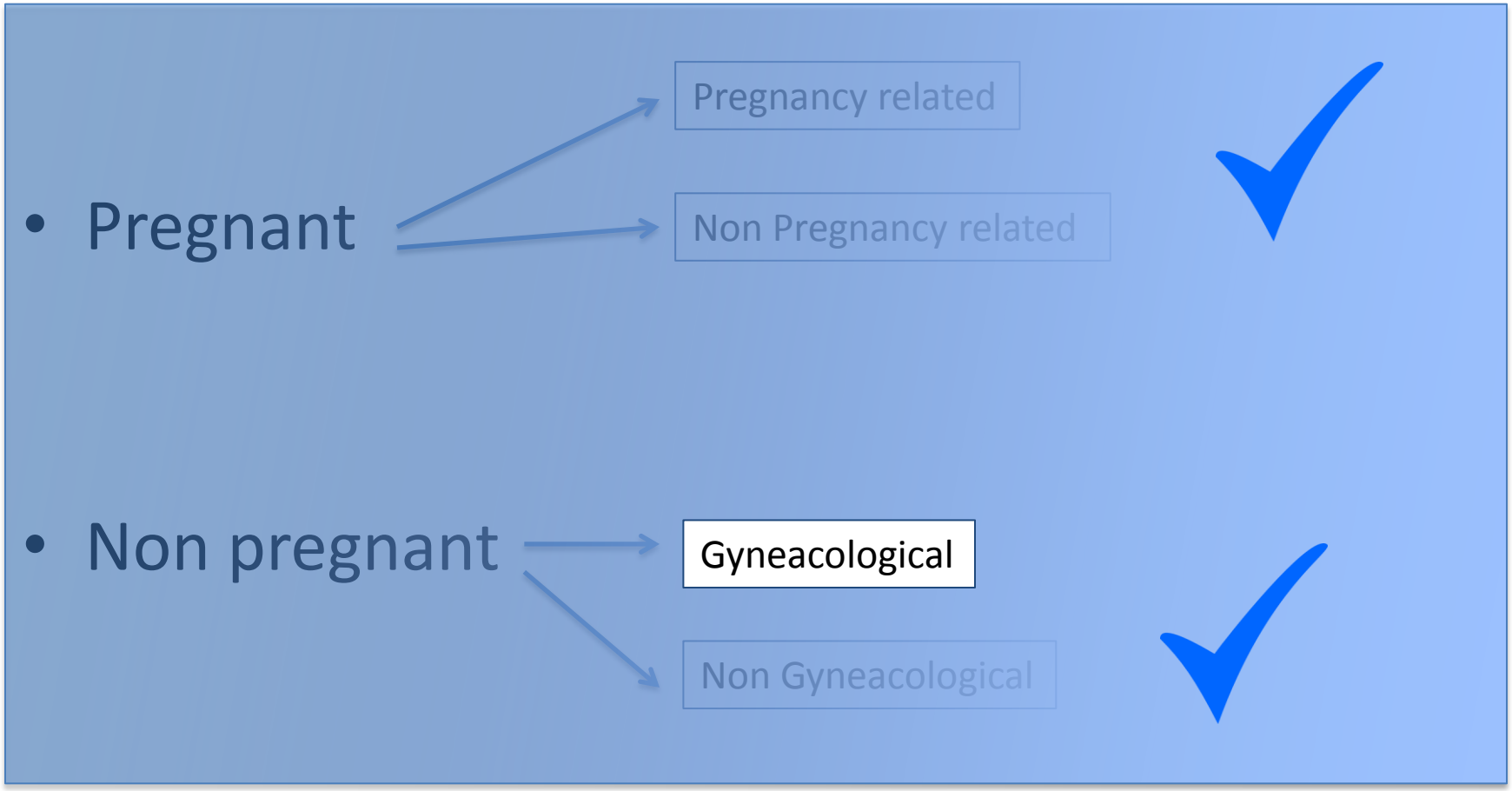

Pregnant
Pregnancy related
Non Pregnancy related
Non pregnant
Gyneacological
Non Gyneacological

Gynecological causes

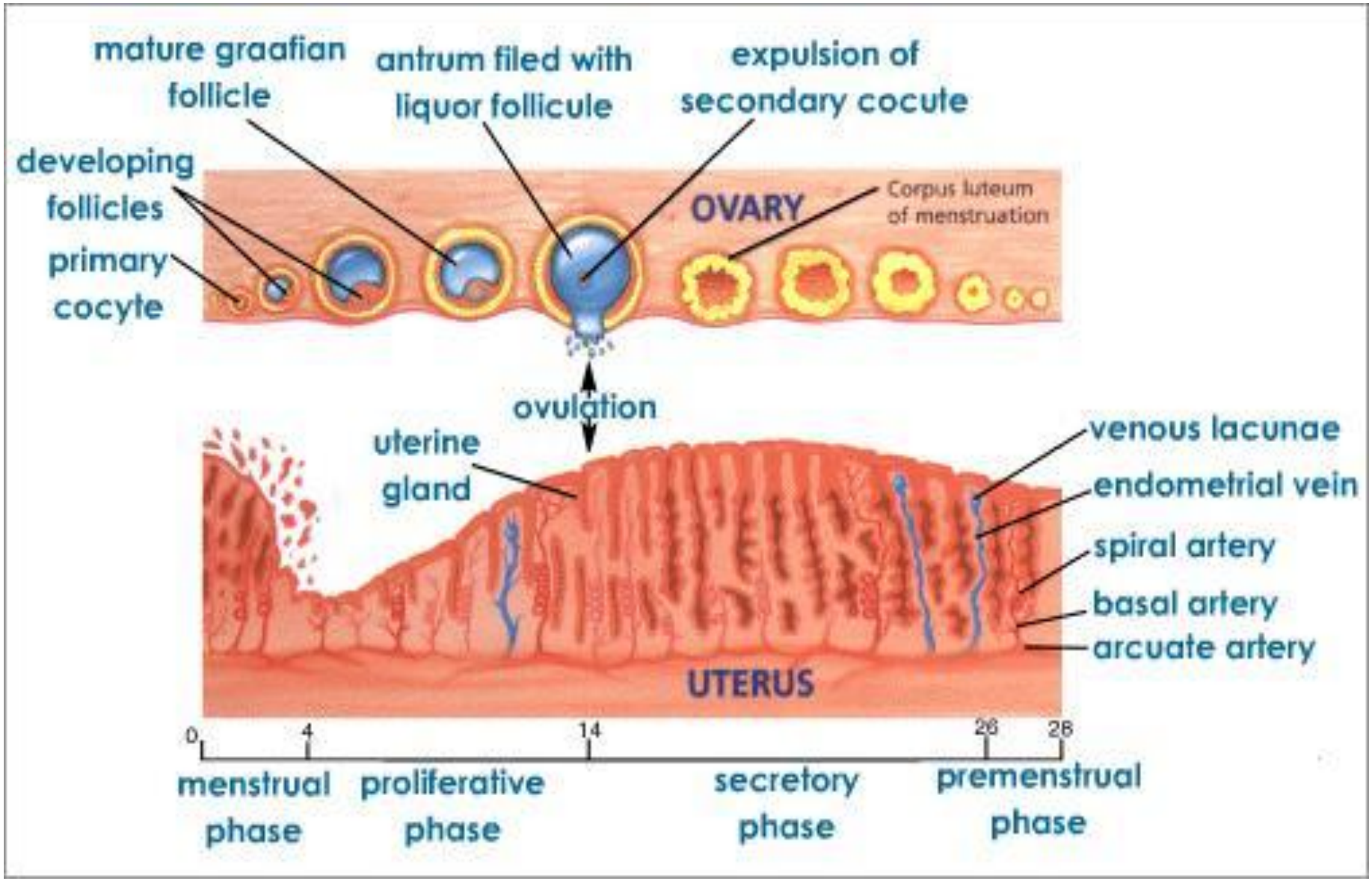
Infectious:
- Pelvic inflammatory disease
- TOA
- Salpingitis
- Endometritis

Adnexal:
- Torsion
- Rupture of ovarian cyst
- Rupture of folicle
- Bleeding follicule

Uterine:
- Dysmenorrhea
- Endometriosis
- Fibroids

Endometriosis:

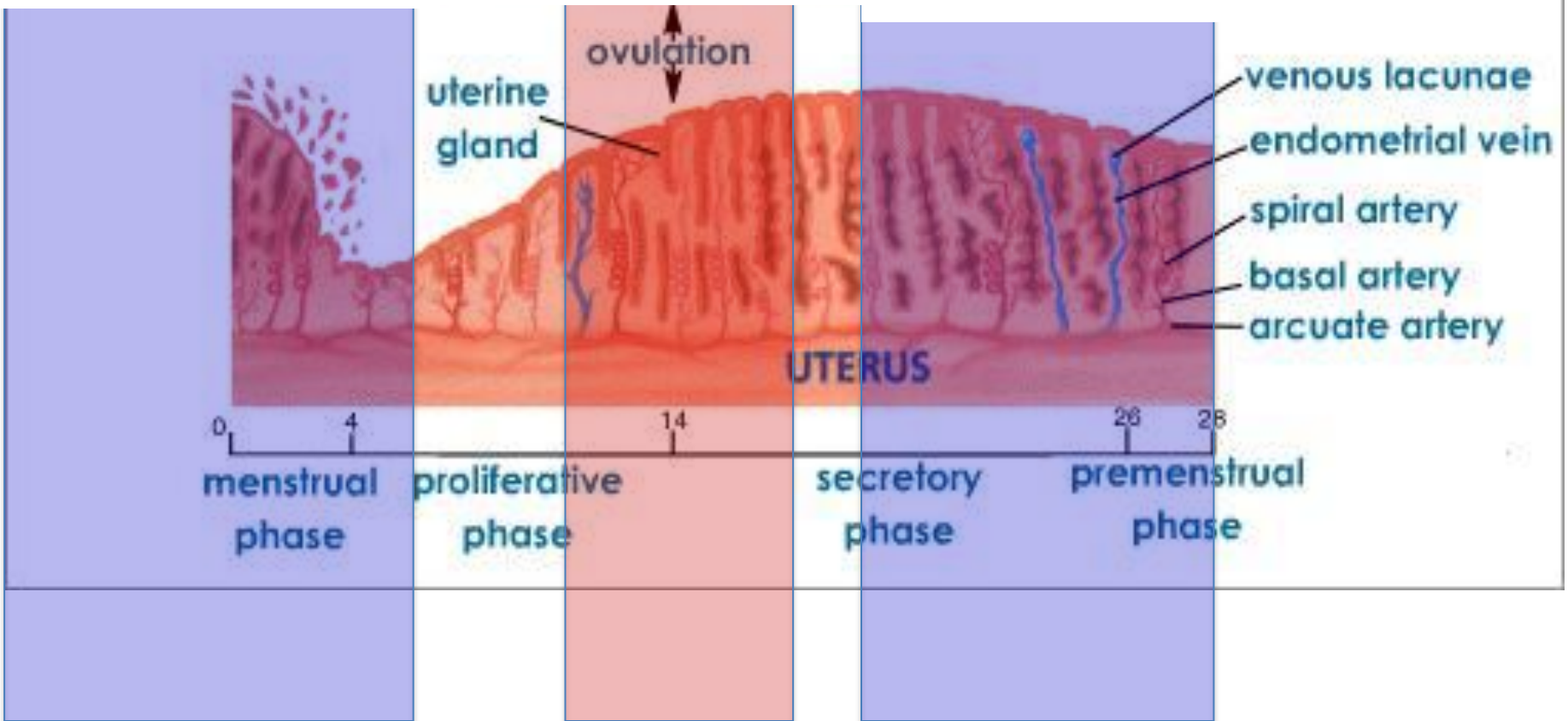
Howard, FM. Acute Abdominal Pain. In: Primary Care for Women., Leppert, PC, Peipert, P (Eds), Lippincott, Williams and Wilkins 2004.


mature graafian follicle
antrum filed with liquor follicule
expulsion of secondary cocute
developing follicles
primary cocyte
OVARY
Corpus luteum of menstruation
ovulation
uterine gland
venous lacunae
endometrial vein
spiral artery
basal artery
arcuate artery
UTERUS
0
4
14
26
28
menstrual phase
proliferative phase
secretory phase
premenstrual phase

MENSTRUATION RELATED

OVULATION RELATED

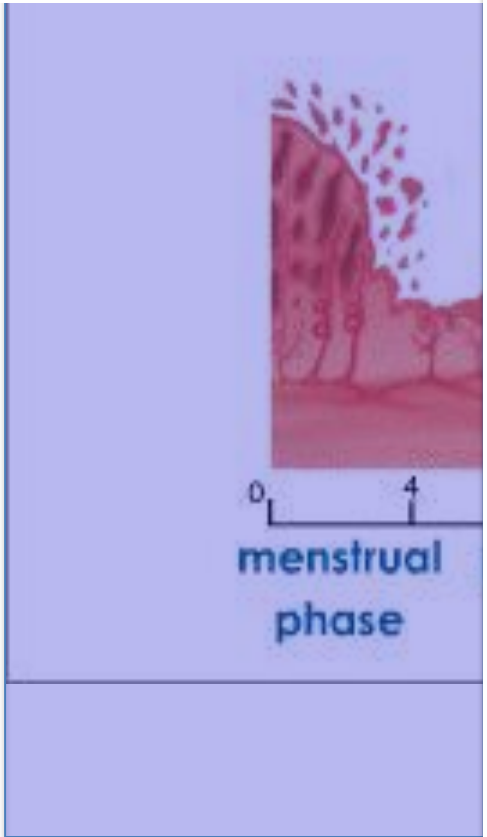
No Ovulation
No Menstruation
RELATED



MENSTRUATION RELATED

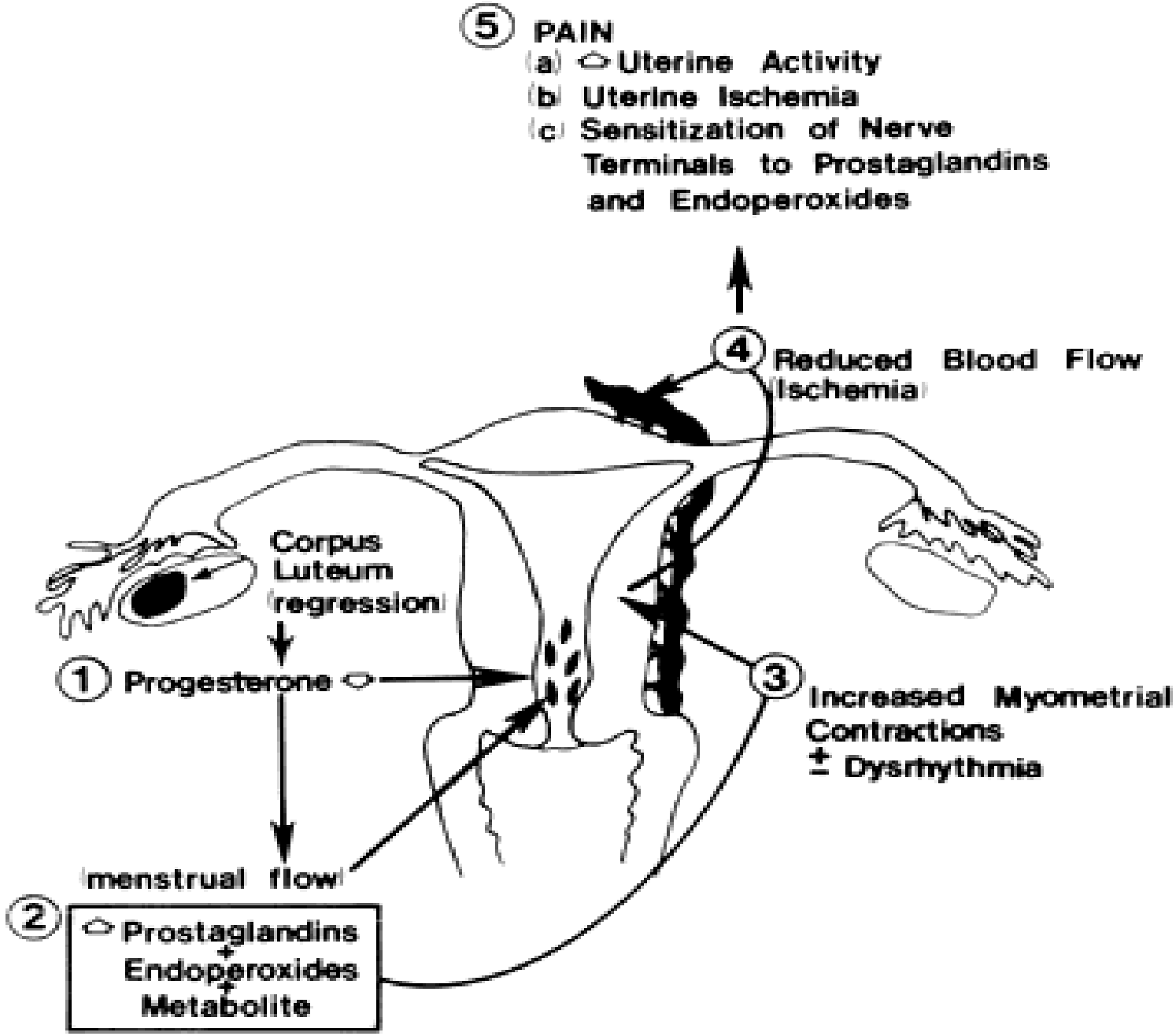
1. Dysmenorrhea

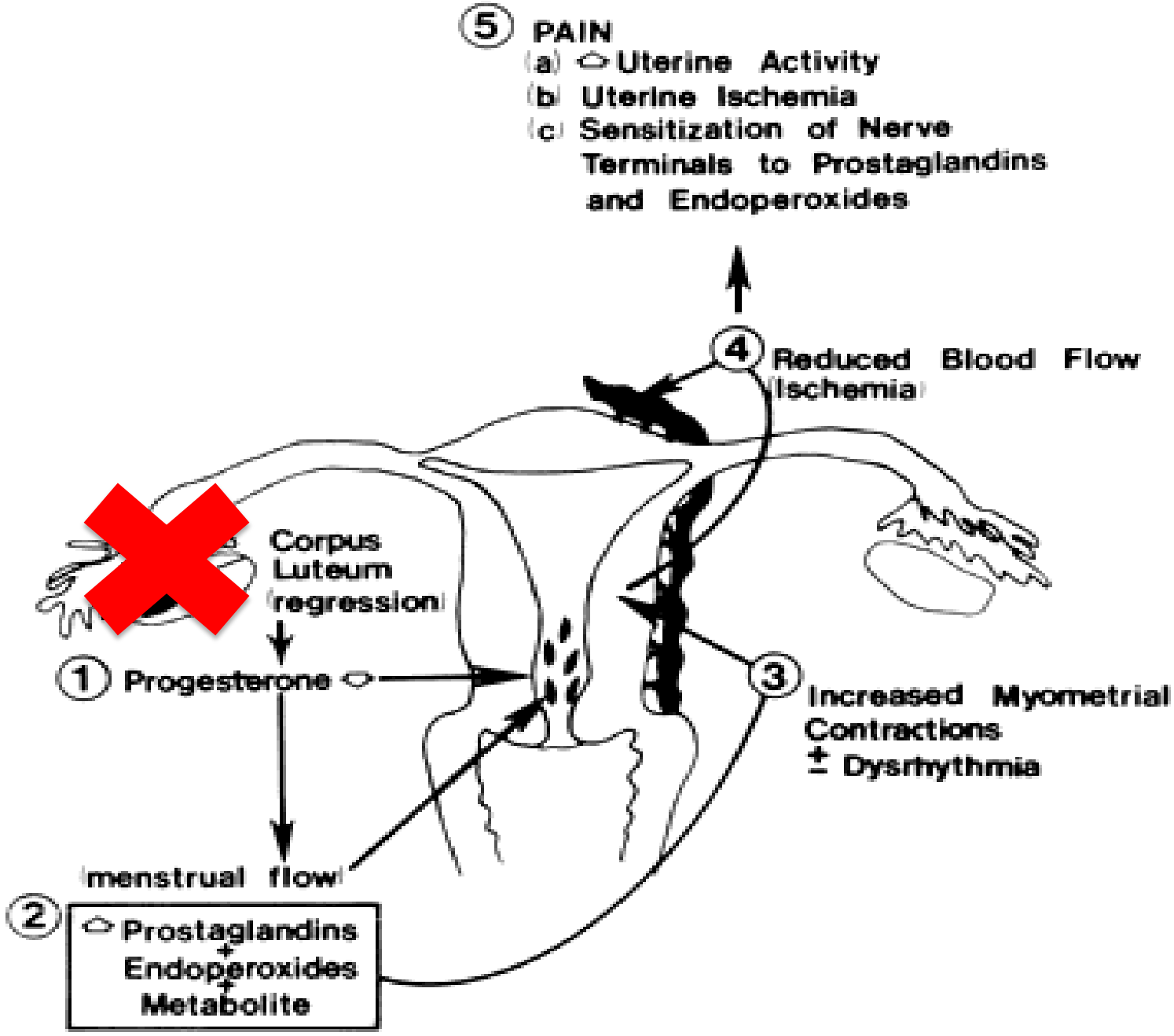
1. Endometriosis



Dysmenorrhea

- Definition
- Classification
- Prevalence:


5 PAIN
(a) ⌓ Uterine Activity
(b) Uterine Ischemia
(c) Sensitization of Nerve Terminals to Prostaglandins and Endoperoxides
4 Reduced Blood Flow Ischemia
Corpus Luteum regression
1 Progesterone ⌓
3 Increased Myometrial Contractions ± Dysrhythmia
menstrual flow
2 ⌓ Prostaglandins + Endoperoxides + Metabolite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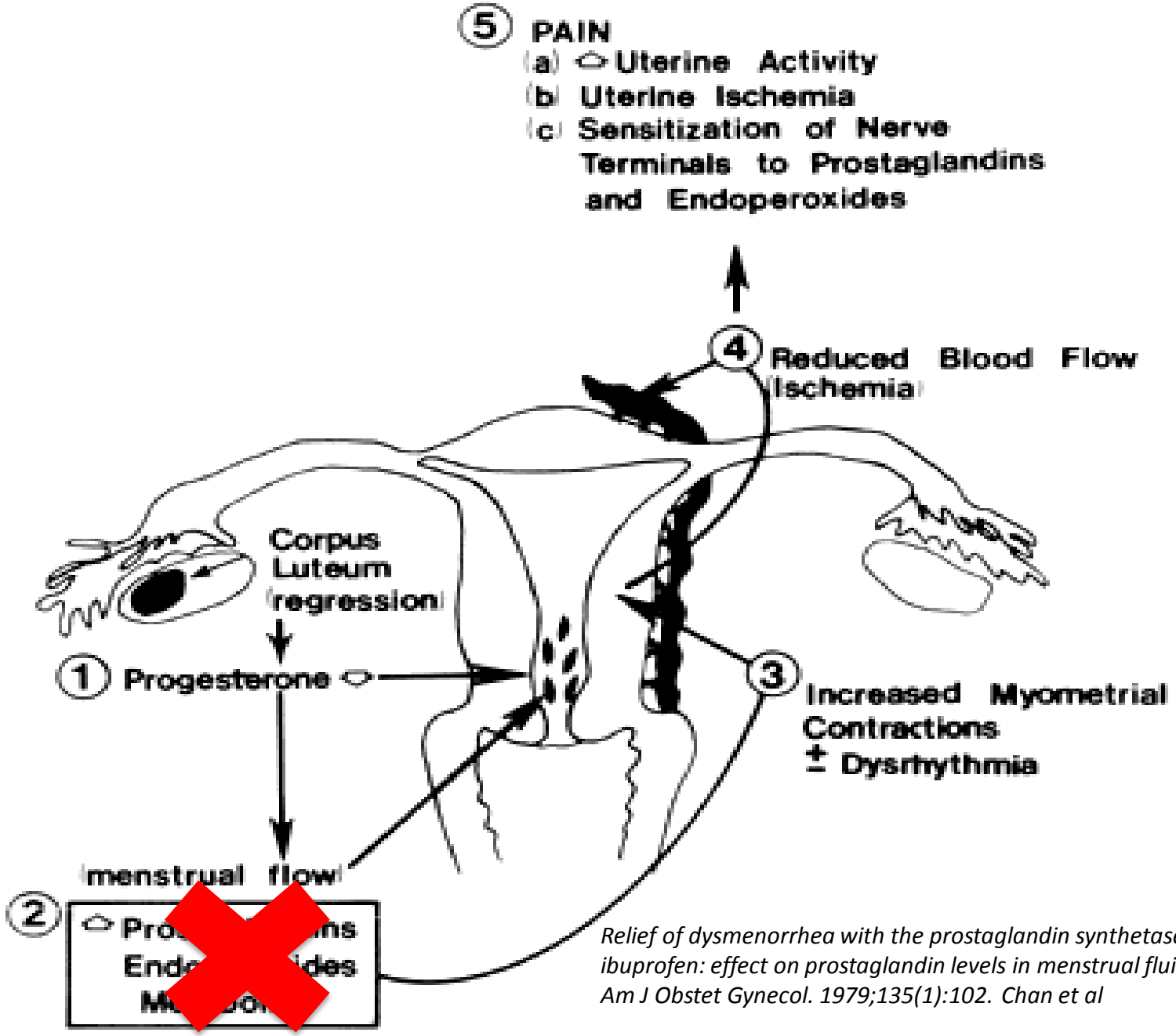


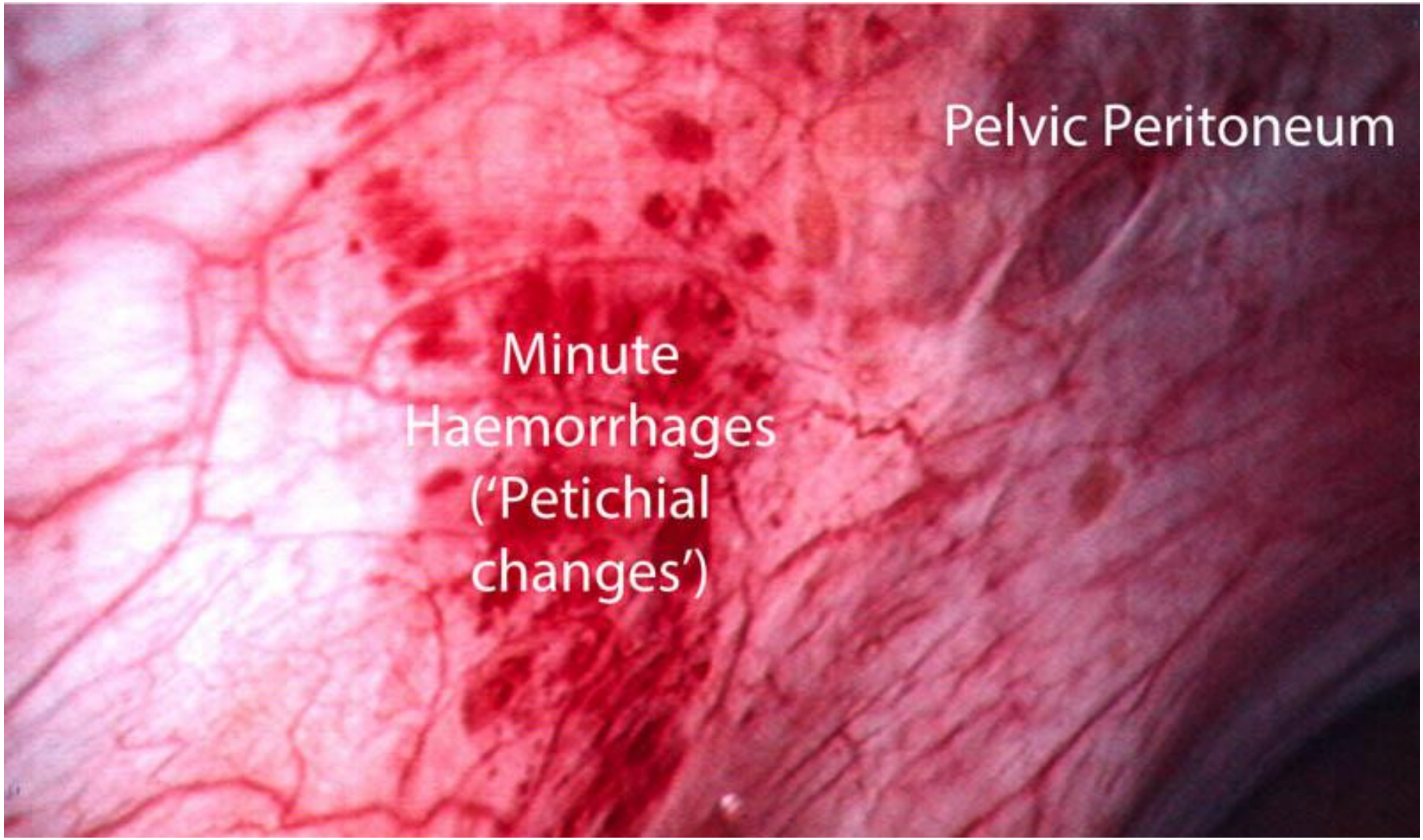
Relief of dysmenorrhea with the prostaglandin synthetase inhibitor ibuprofen: effect on prostaglandin levels in menstrual fluid. Am J Obstet Gynecol. 1979;135(1):102. Chan et al

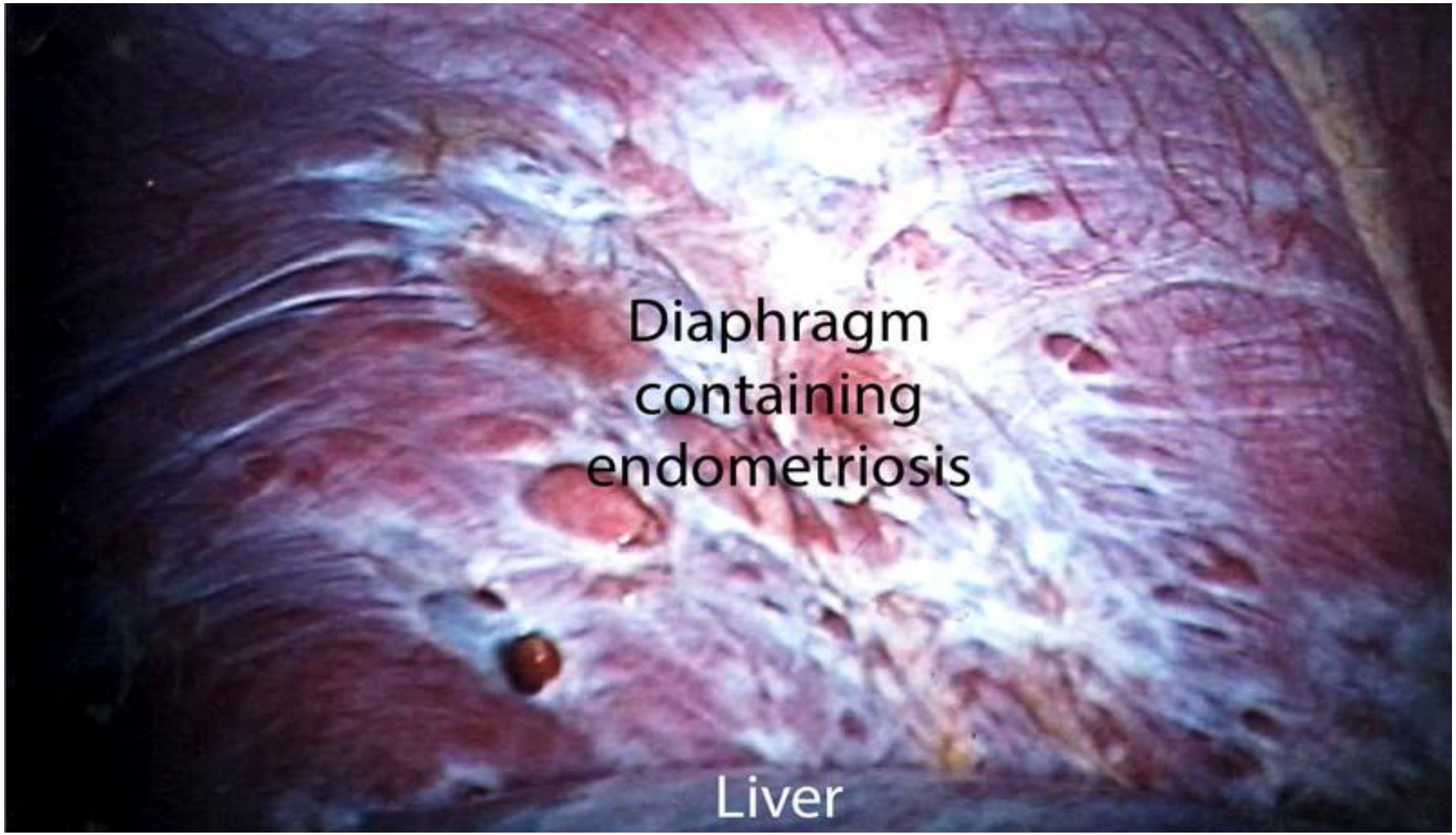
It should not have:

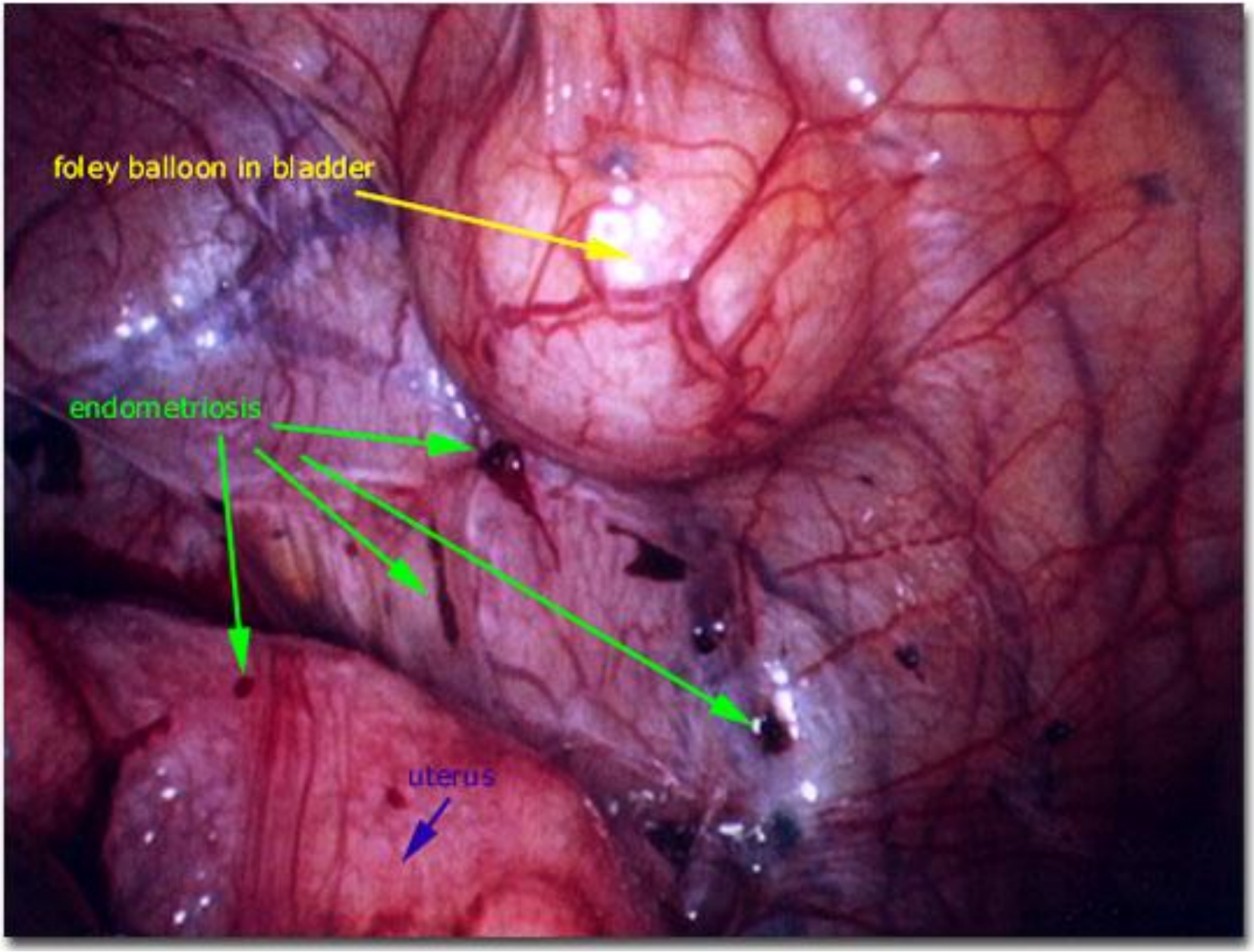
- Onset of dysmenorrhea after age 25.
- Abnormal uterine bleeding (eg, menorrhagia, oligomenorrhea, intermenstrual bleeding)
- Nonmidline pelvic pain
- Presence of dyspareunia or dyschezia
- Progression in symptom severity

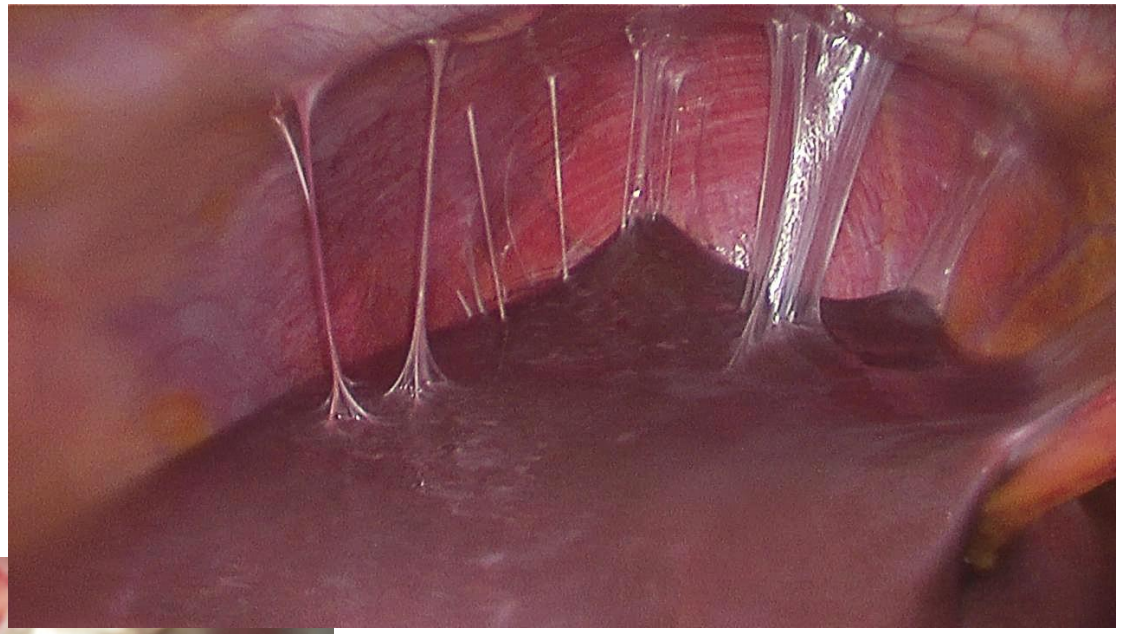
Endometriosis

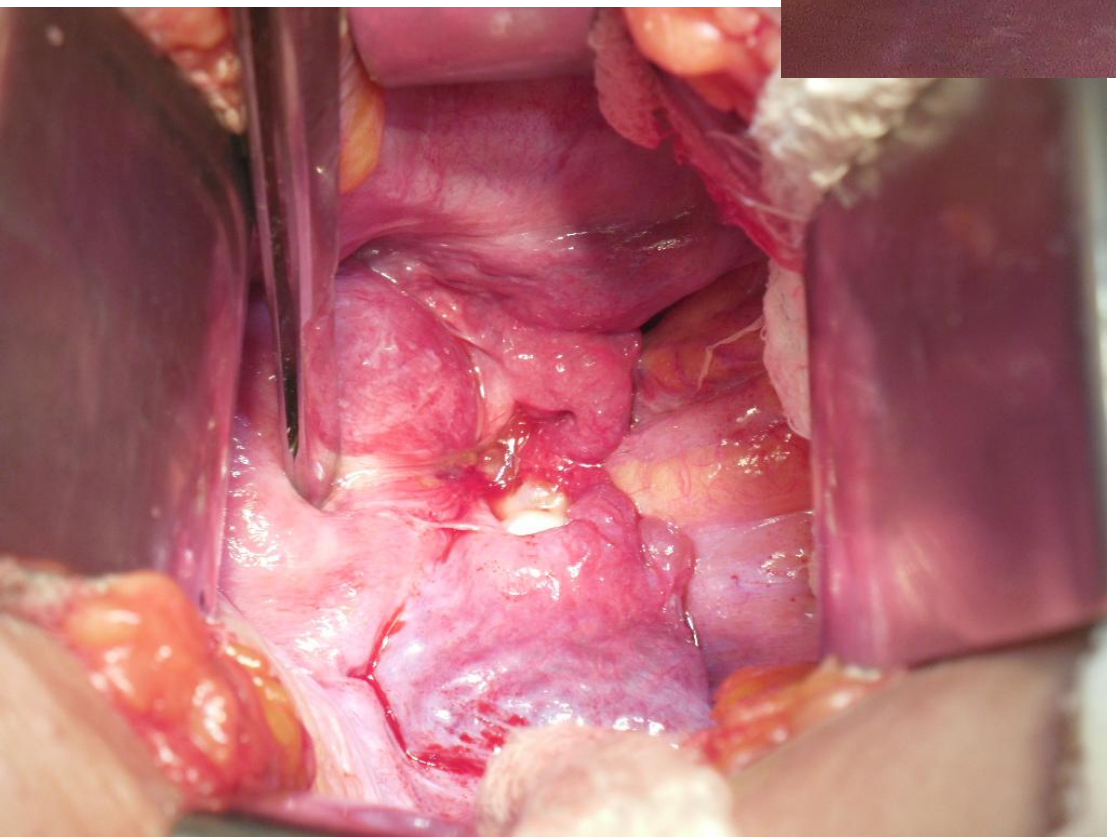
- Def:
- Clinical
    - may have premenstrual spotting
    - dyspareunia, dyschezia
    - poor relief of symptoms with NSAIDs
    - progressively worsening symptoms, and inability to attend work or school during menses
- Diag:
    - LPC
    - US: endometriomas, RVSeptum


Pelvic Peritoneum
Minute Haemorrhages ('Petichial changes')

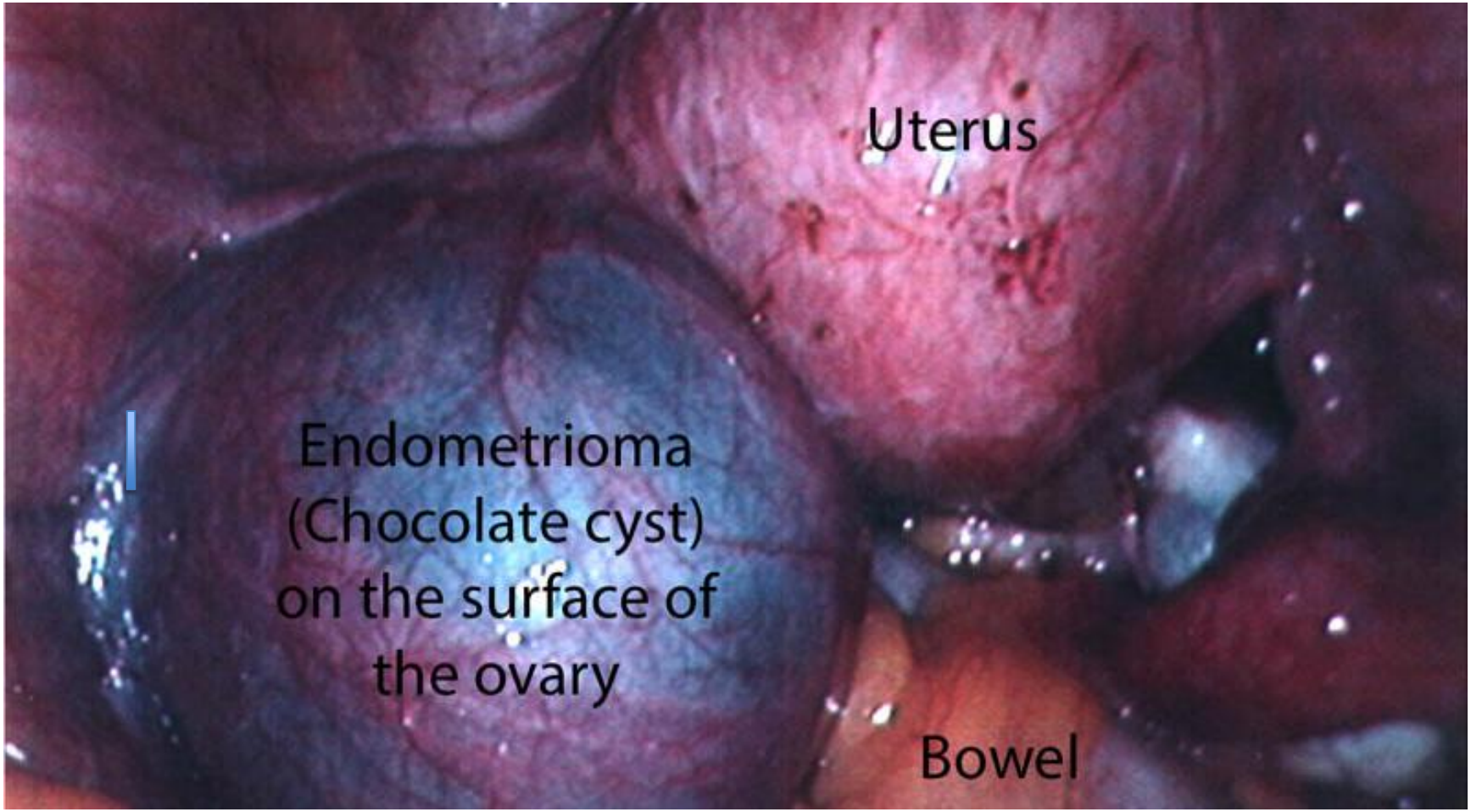

Diaphragm
containing
endometriosis
Liver


foley balloon in bladder
endometriosis
uterus

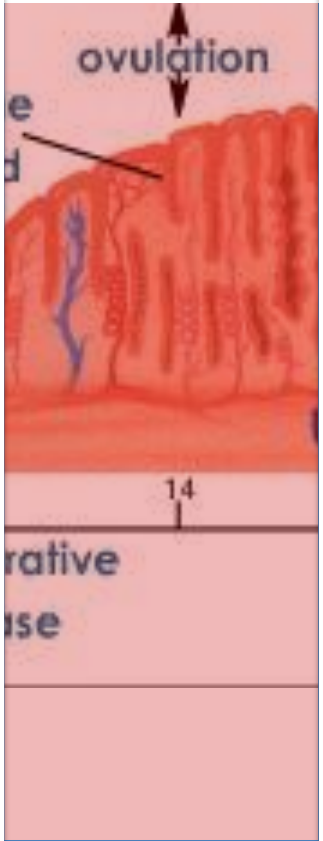




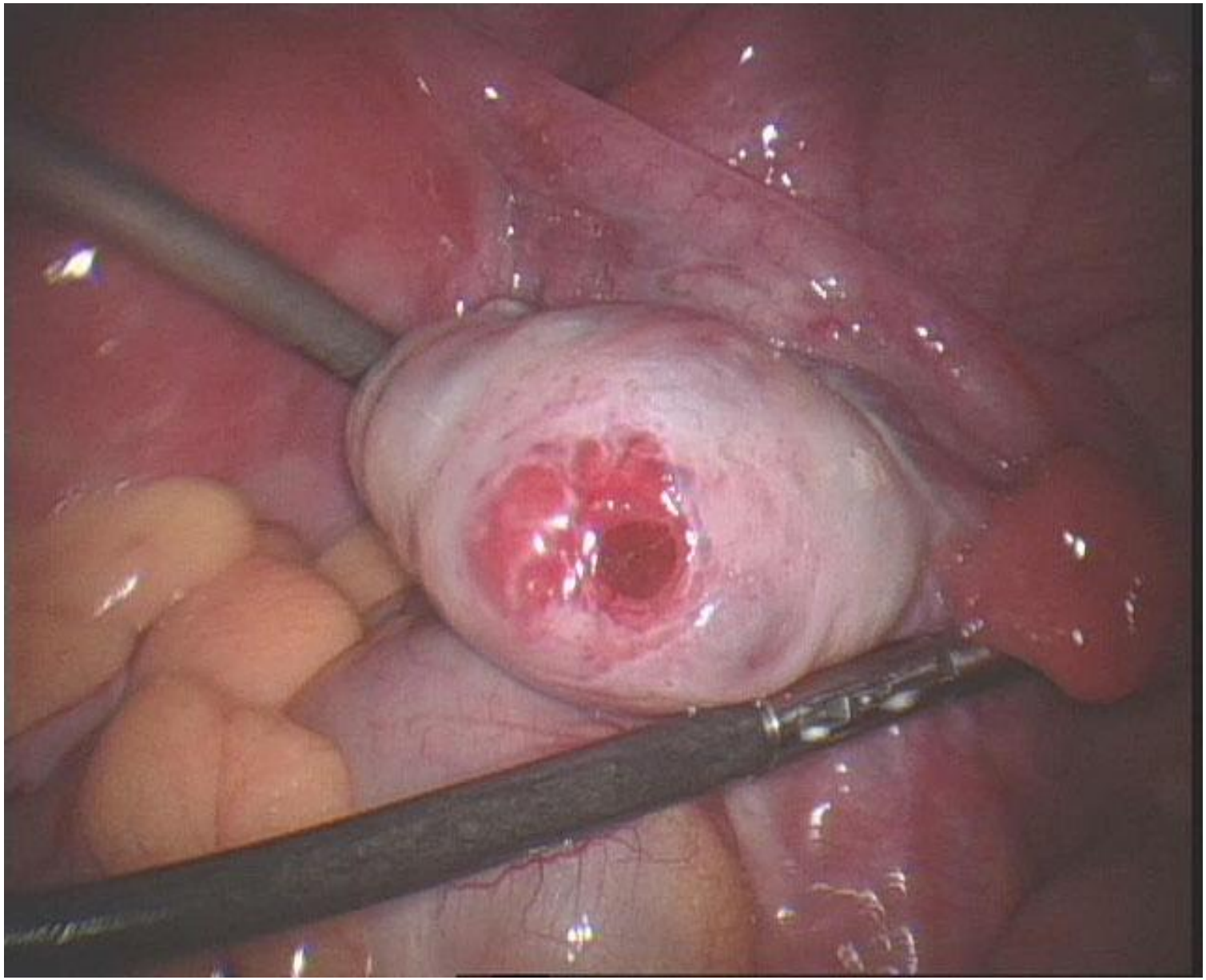
Pain and mass

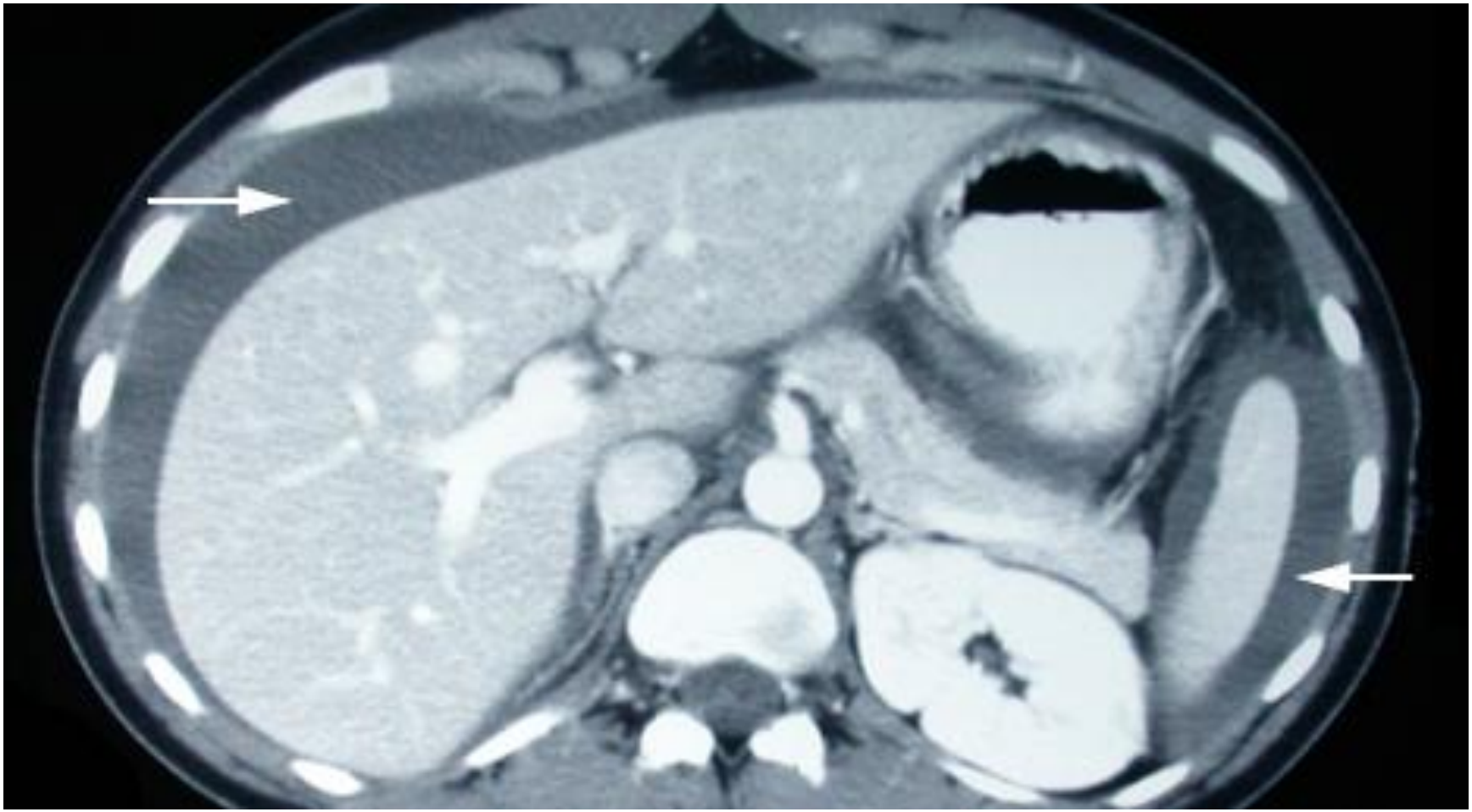


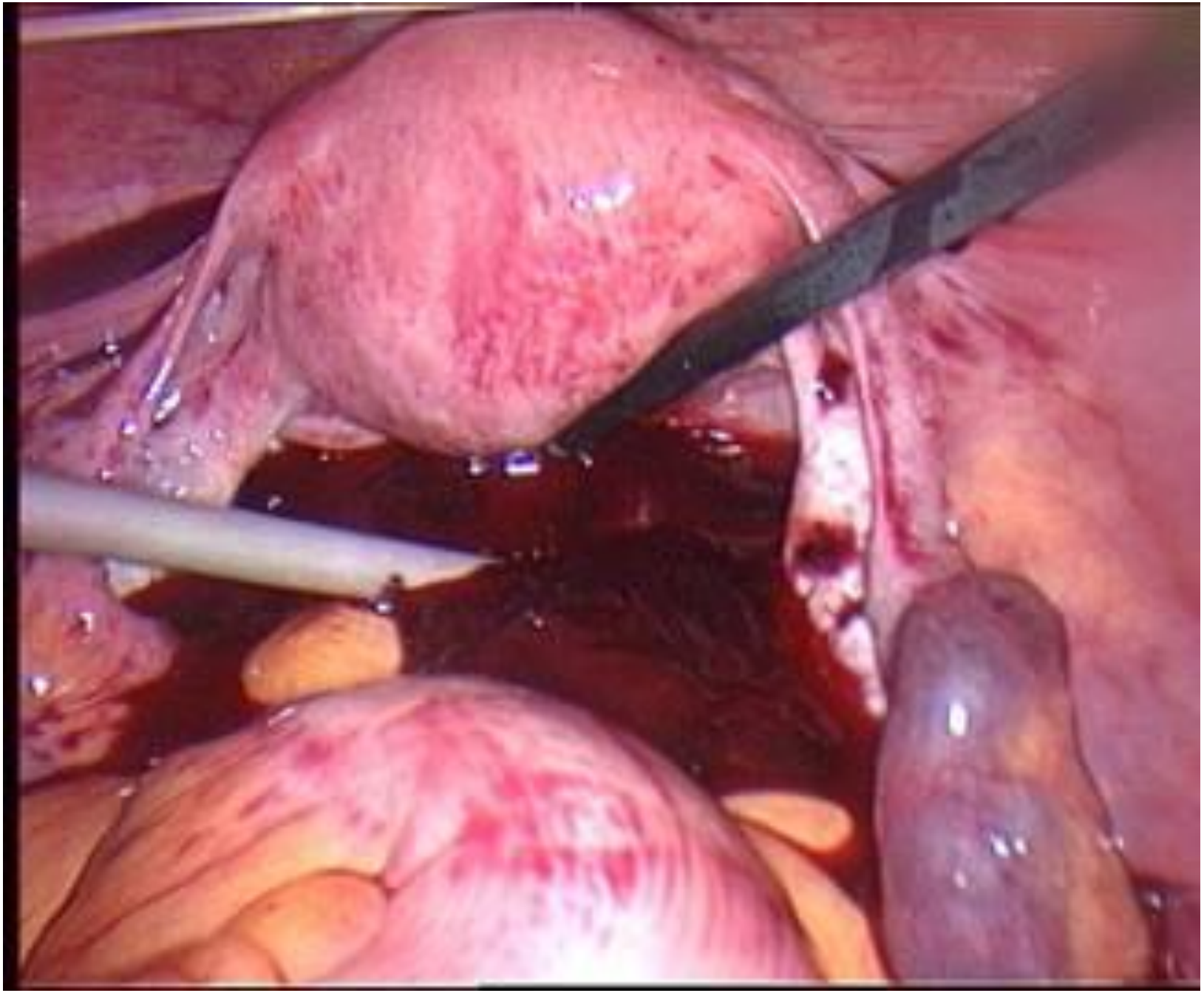
OVULATION RELATED



1. Mittelschmerz
   Painful ovulation
2. Bleeding folicule

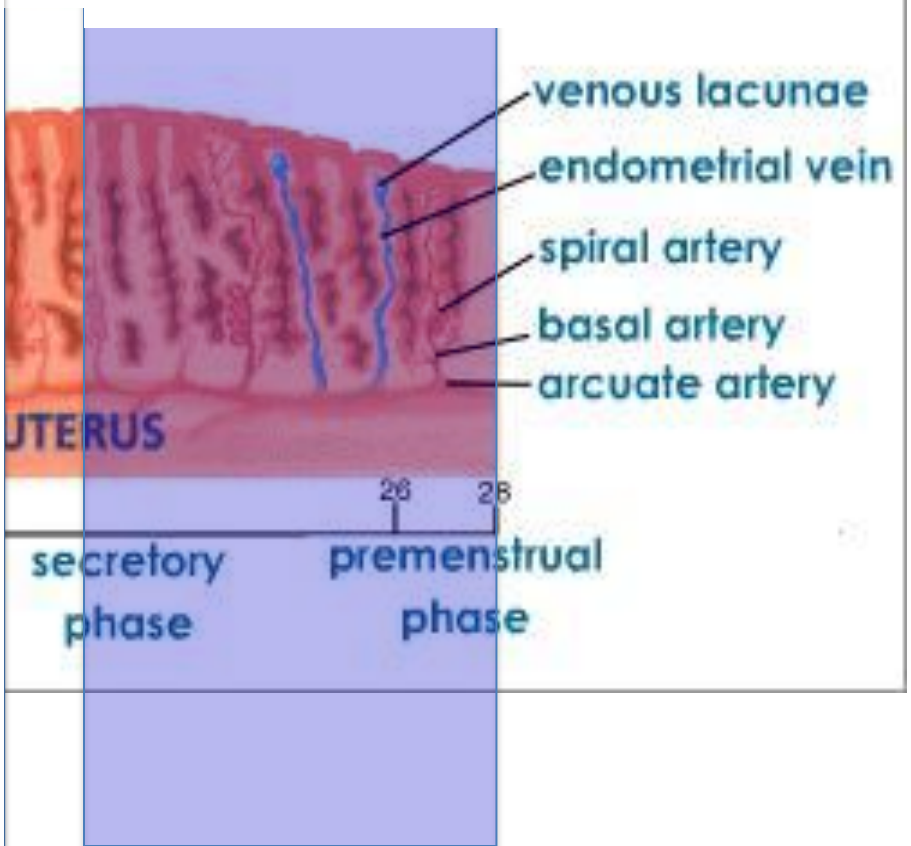






1. RUPTURED CYST
2. Ovarian adnexal mass
3. PID

No Ovulation
No Menstruation
RELATED



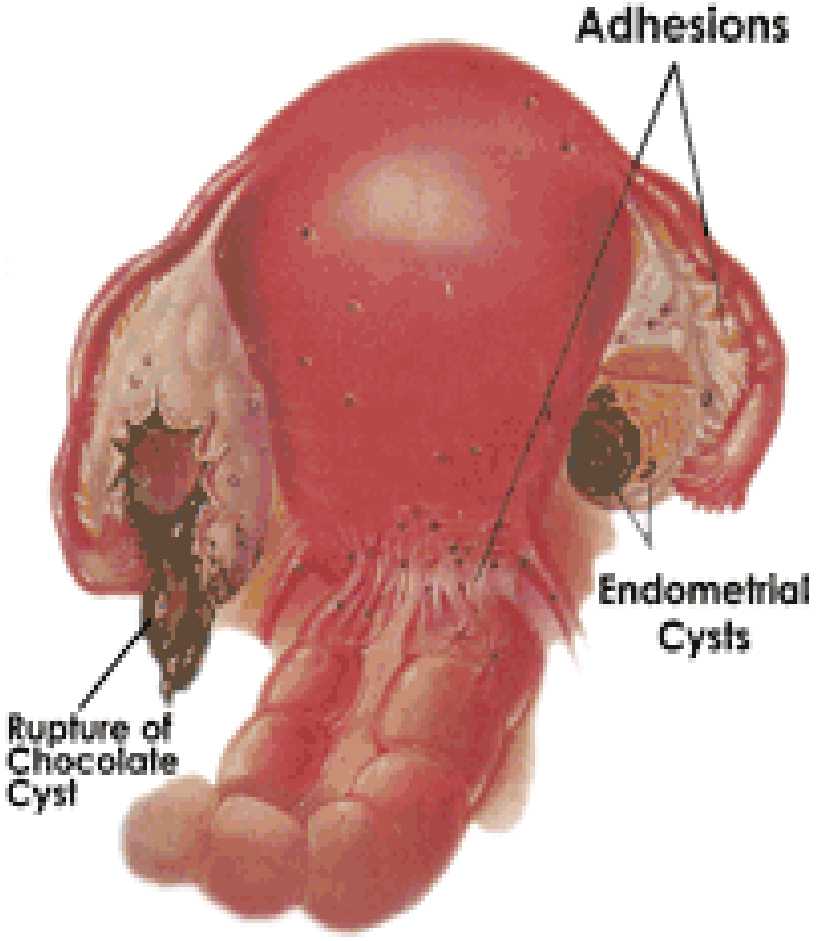
Ruptured ovarian cyst

- sudden onset of unilateral lower abdominal pain.
- begins during strenuous physical activity (exercise/ intercourse)
- may be accompanied by light vaginal bleeding

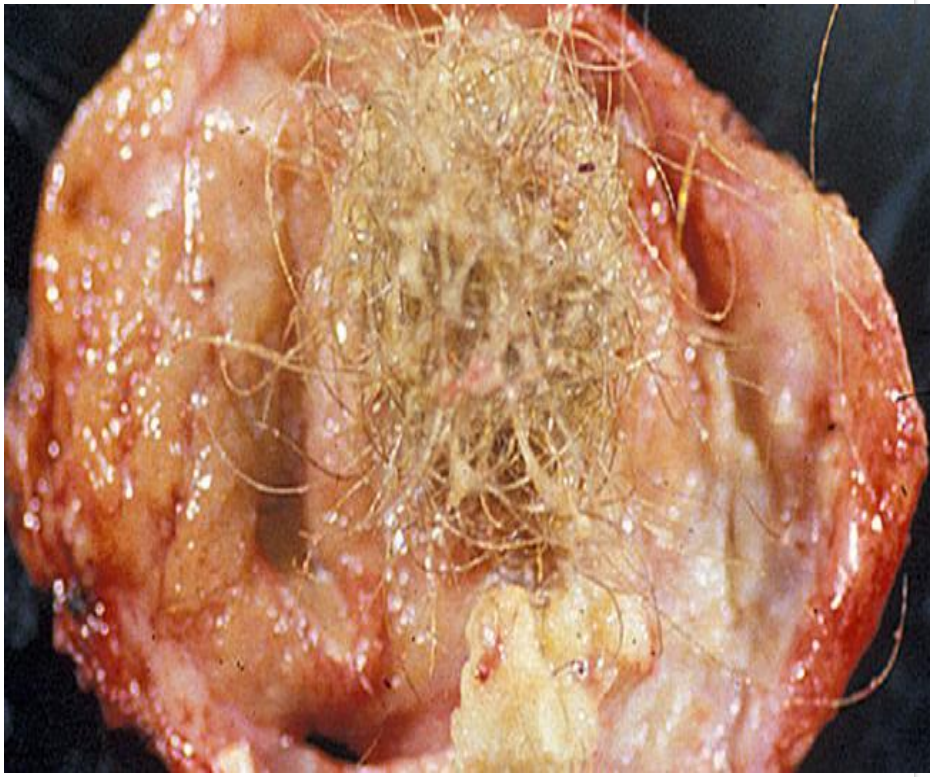
WHY IS IT PAINFUL:

- Where:
  - Pain from stretching of the ovarian cortex,
  - Haemoperitoneum
- Content:
  - Blood
  - Serous or mucinous fluid not very irritating
  - sebaceous material (dermoid) chemical peritonitis

OVARIAN CYSTS



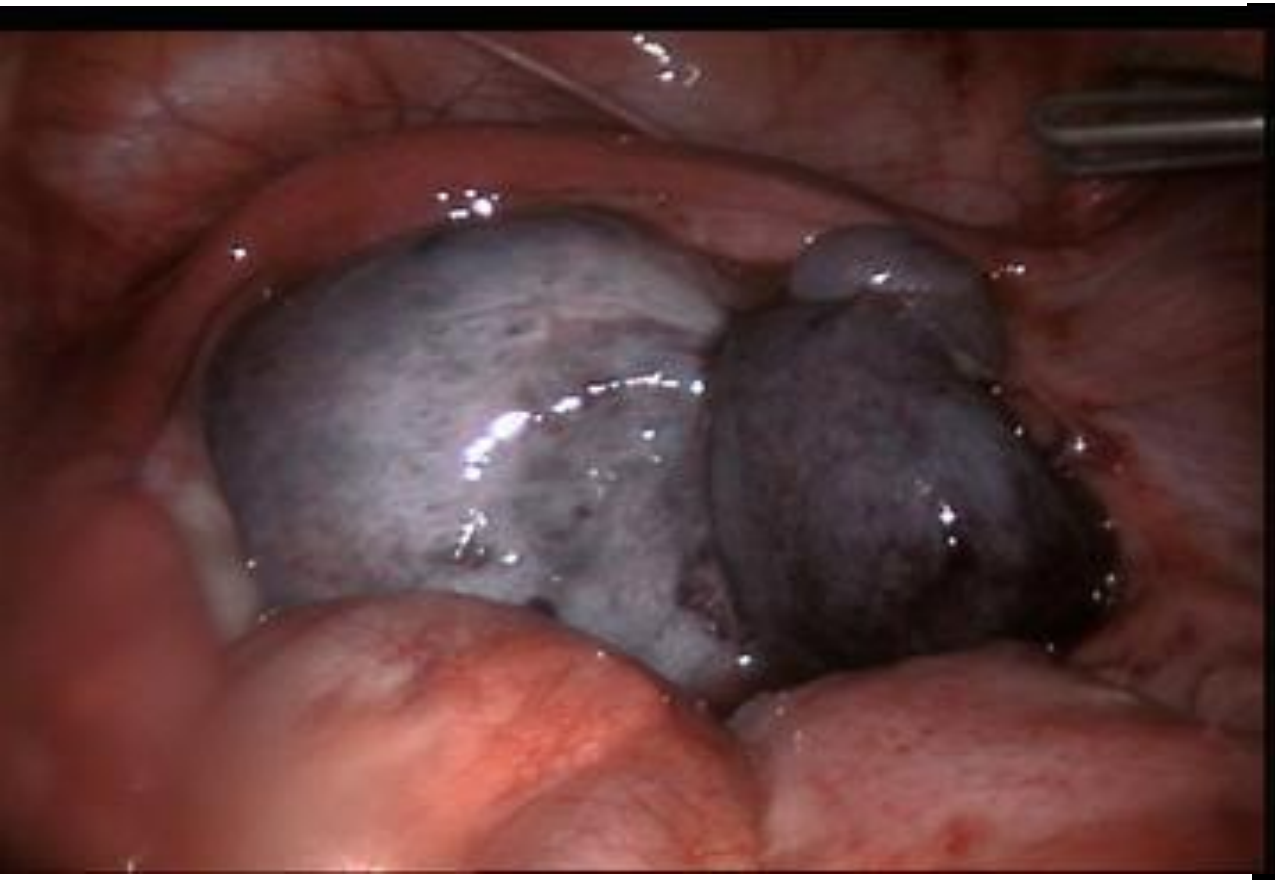
Ruptured cysts

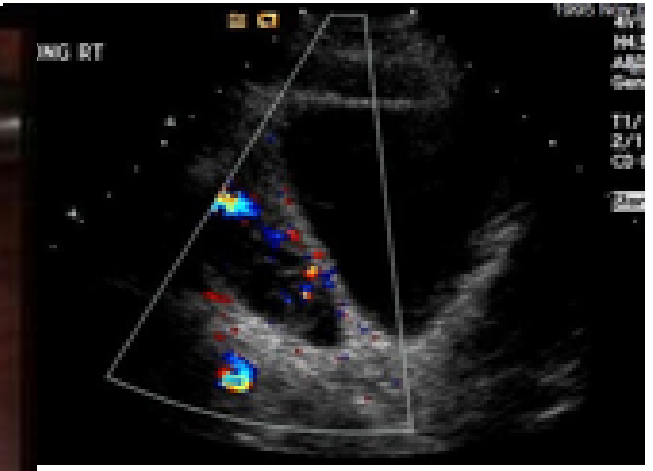


Adnexal torsion

- Acute onset of moderate to severe pelvic pain, often with nausea /vomiting:

- Pelvic pain (90 percent)
- Adnexal mass (86 to 95 percent)
- Nausea and vomiting (47 to 70 percent)
- Fever (2 to 20 percent)
- Abnormal genital tract bleeding (4 percent)

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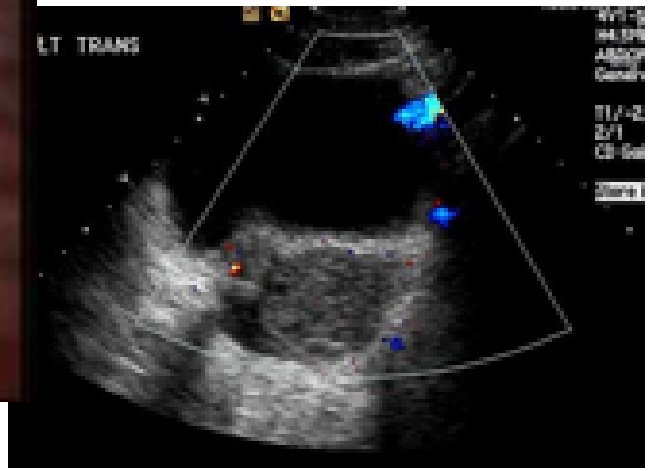
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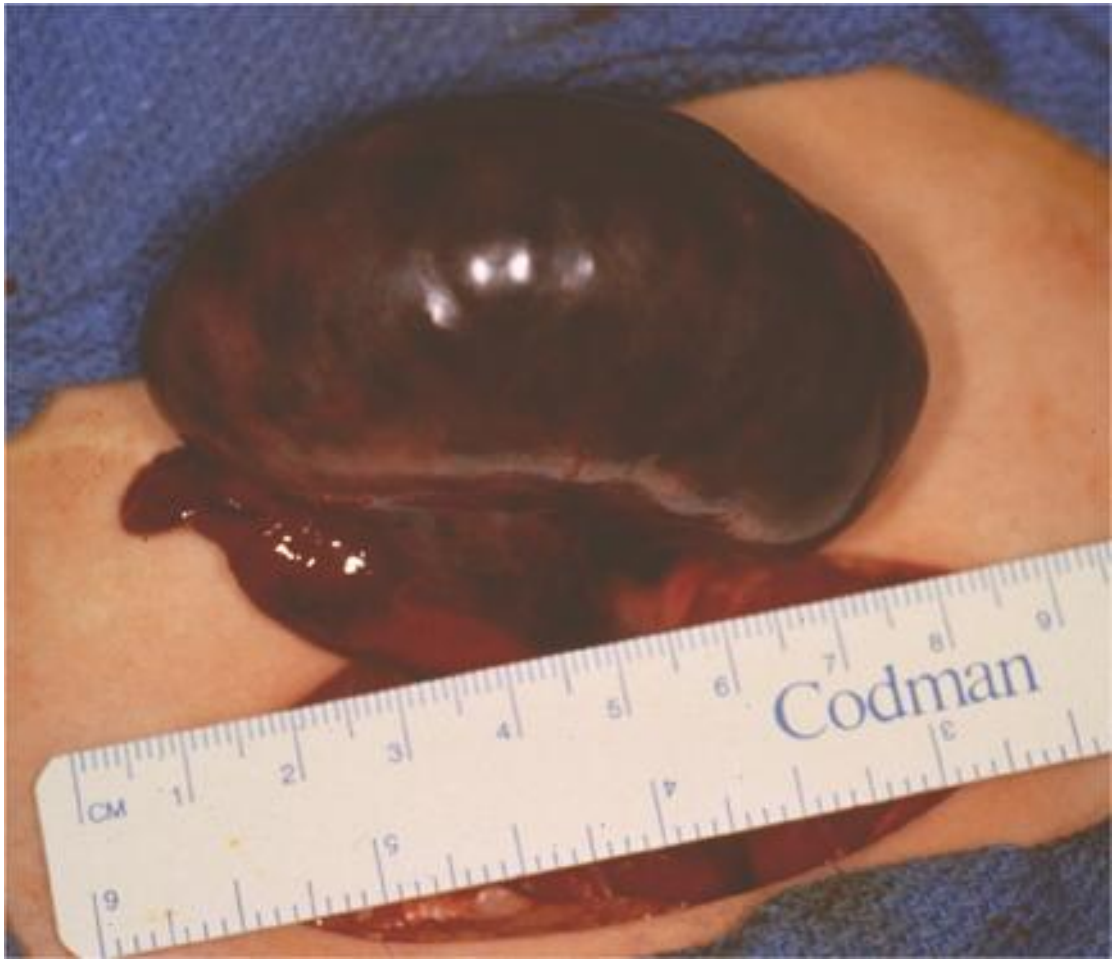
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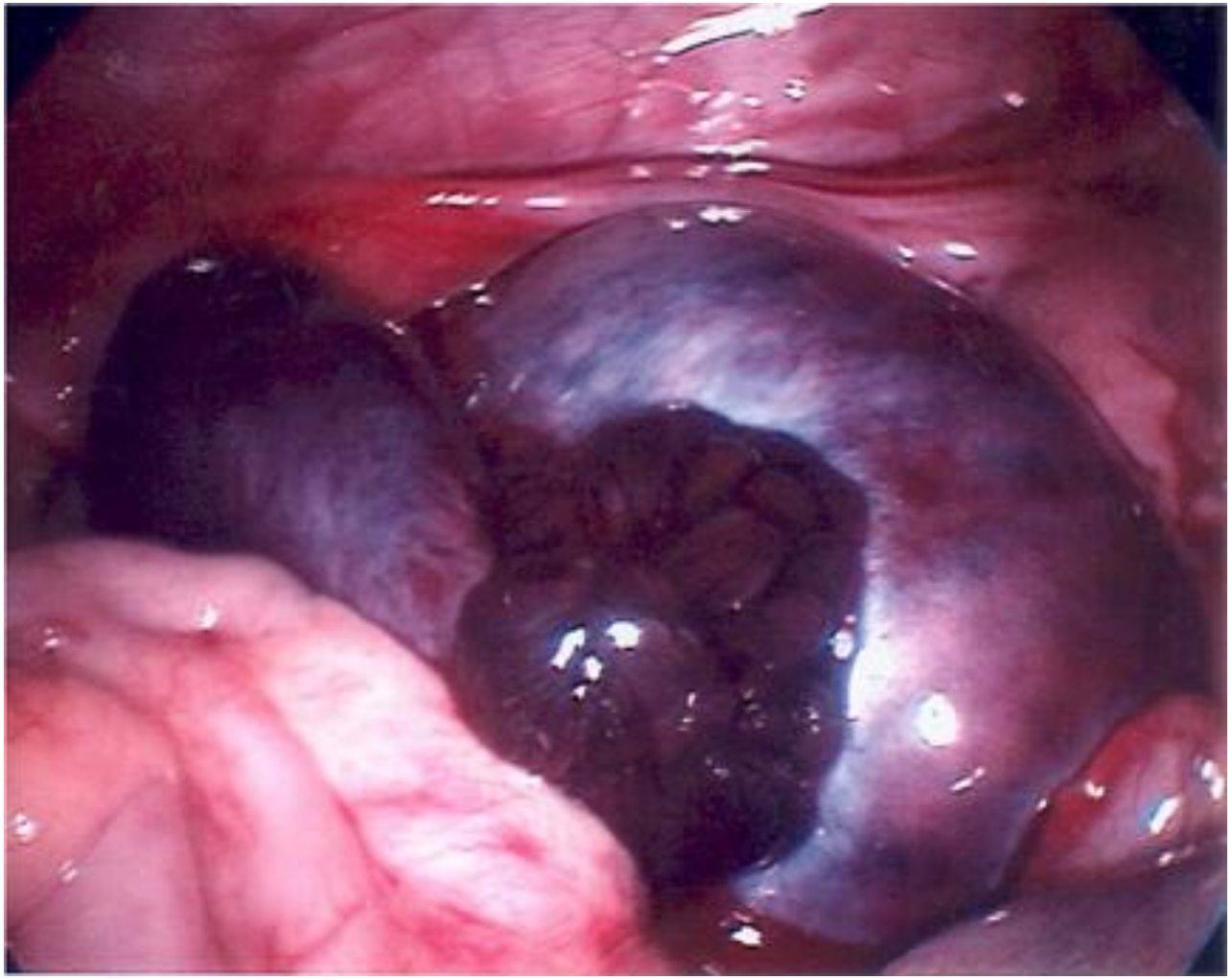
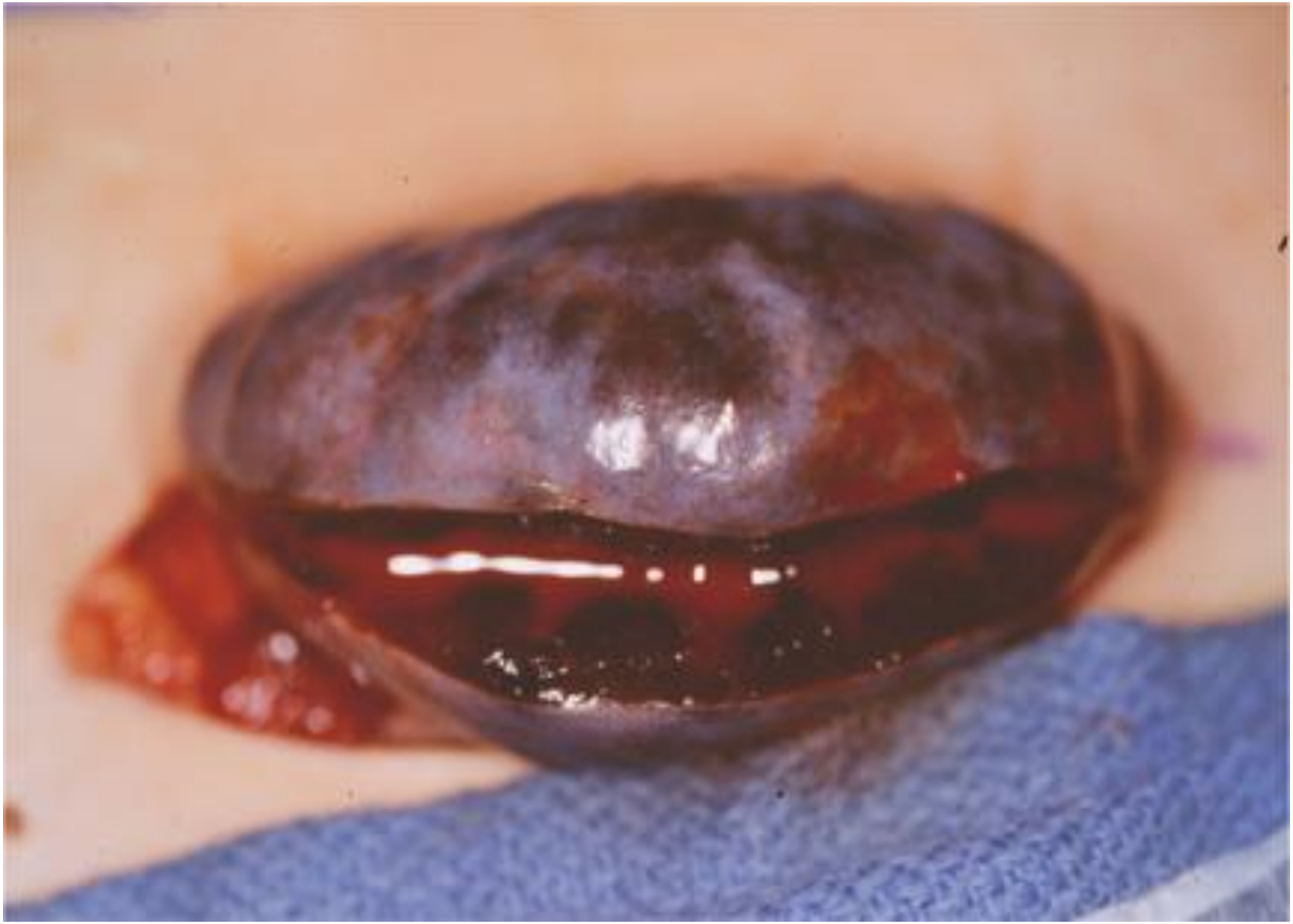
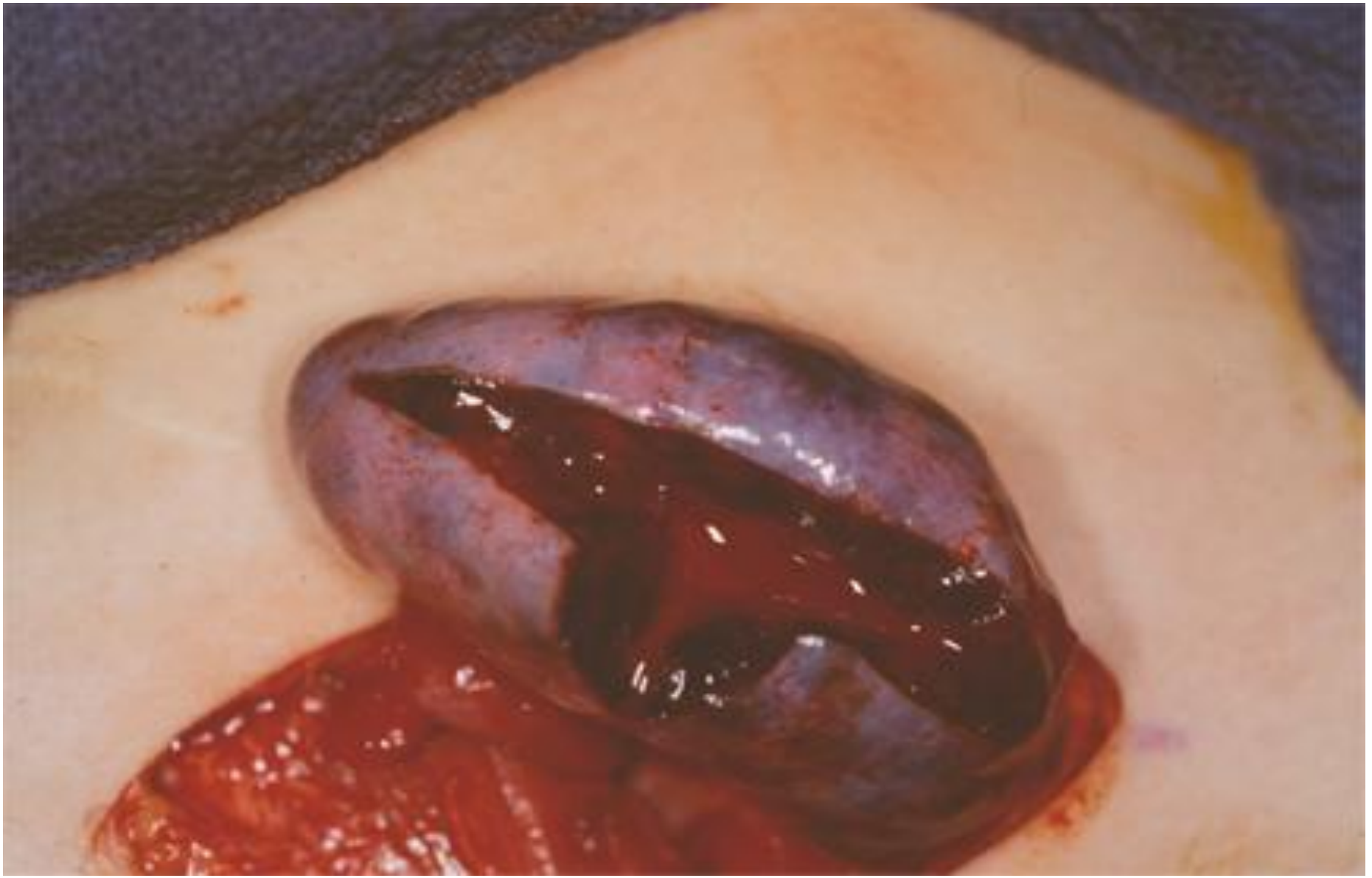


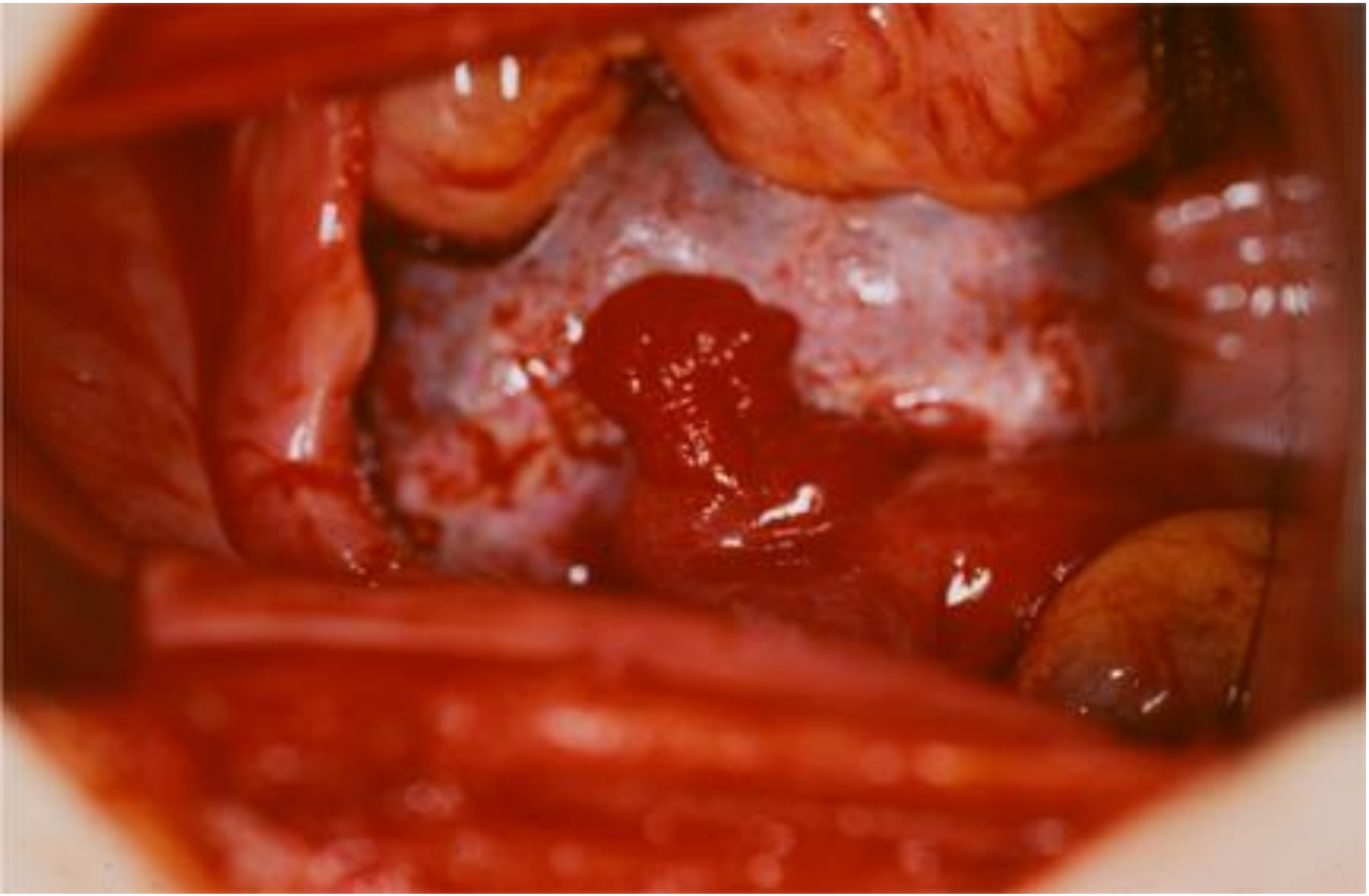
CONCLUSIONS:

- In the management of Premenarchal girls with adnexal torsion, detorsion and adnexal conservation surgery should be considered in cases with adnexa appearing to be ischemic or hemorrhagic infarction.
- Detorsion with adnexal sparing is the treatment of choice for twisted ischaemic adnexa, and preferably performed by laparoscopy.

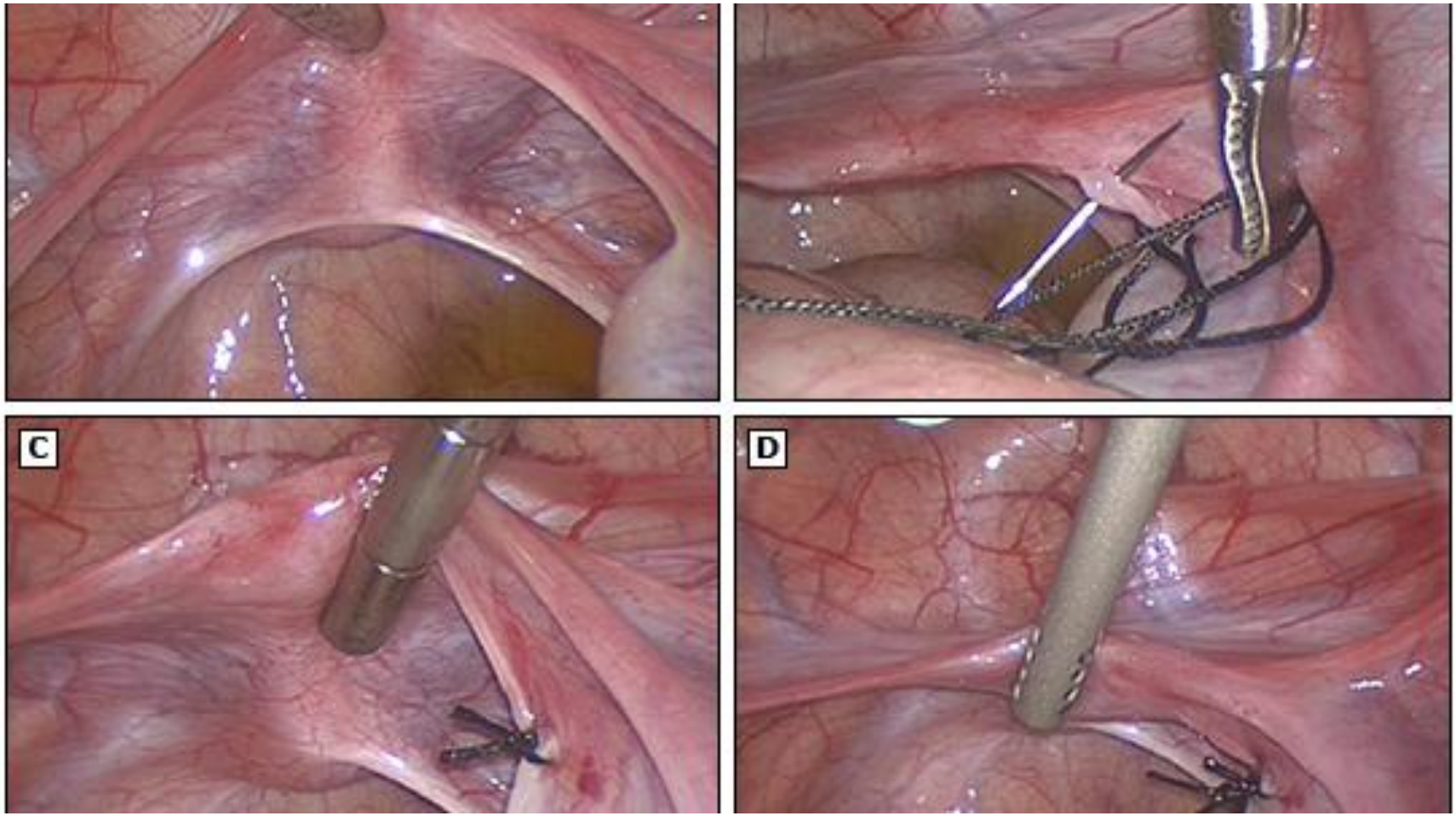
- *Predominant etiology of adnexal torsion and ovarian outcome after detorsion in premenarchal girls.Wang et al. Eur J Pediatr Surg. 2010 Sep;20(5):298-301.*
  Minimal surgery for the twisted ischaemic adnexa can preserve ovarian function.Oelsner G et alHum Reprod. 2003;18(12):2599.

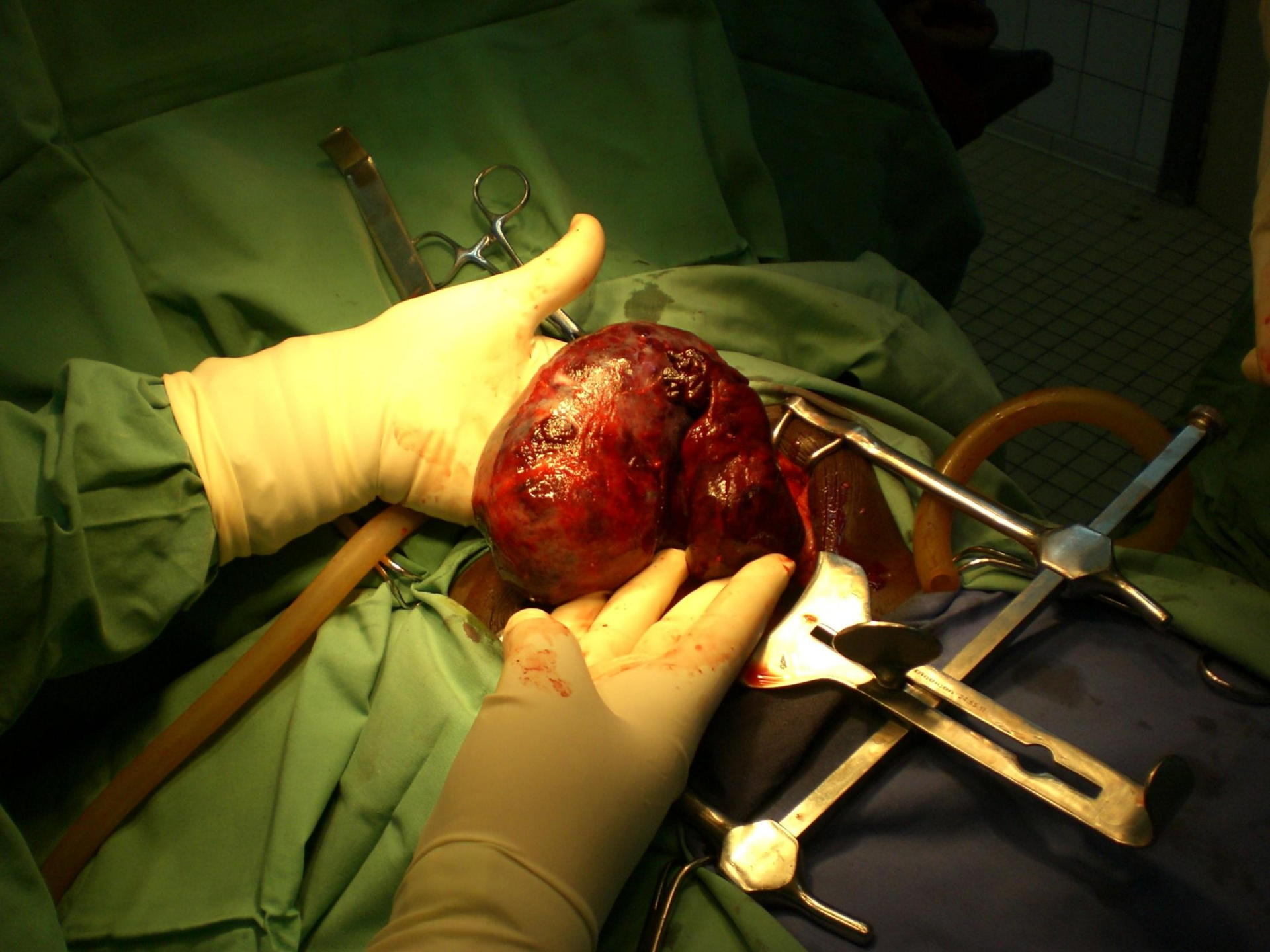






Prevention of recurrence





PID

- PID represents a spectrum of clinical disease, from endometritis to fatal intraabdominal sepsis.
- Clinical criteria (CDC) for empirical treatment of PID:
  - cervical motion tenderness or uterine or adnexal tenderness in the presence of
  - lower abdominal or pelvic pain.

- Additional criteria:
  - Oral temperature >101° F (>38.3°C)
  - Abnormal cervical or vaginal mucopurulent discharge
  - Presence of abundant numbers of white blood cells (WBCs) on saline microscopy of vaginal secretions
  - Elevated erythrocyte sedimentation rate
  - Elevated C-reactive protein

- There are multiple gold standards
- Older studies defining PID by a single standard, such as laparoscopic visualization of gross salpingitis, are now felt to lack sensitivity

CDC definitive diagnosis

- One or more of the following three findings are required:

1. Histologic evidence of endometritis in a biopsy
2. An imaging technique revealing thickened fluid-filled tubes/oviducts with or without free pelvic fluid or tuboovarian complex
3. Laparoscopic abnormalities consistent with PID (eg, tubal erythema, edema, adhesions; purulent exudate or cul-de-sac fluid; abnormal fimbriae)

Treatment

Admission:

- Pregnancy
- Lack of response or tolerance to oral medications
- Nonadherence/intolerance to therapy
- Severe clinical illness (high fever, nausea, vomiting, severe abdominal pain)
- Complicated PID with pelvic abscess (including tuboovarian abscess)
- Possible need for surgical intervention or diagnostic exploration for alternative etiology (eg, appendicitis)

http://www.cdc.gov/std/treatment/2010/default.htm

Summary

- Relate the pain with cycle phase
  - Menstruation
  - Ovulation
- Other Gynecological specific conditions
  - Adnexal pathology: torsion, ruptured cysts, PID
- Involve Gynaecologist for Intraop diagnosis
- Try to keep ovaries in premenopausal patients