Endometriosis and Adenomyosis

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Case scenario

- A 32-year-old G0P0 presents to the infertility clinic with a 3-yr history of infertility. She states that her menses began at age 13 and occurs on regular 28-day intervals. She complains of severe monthly pain 1 week before each menses and pain with intercourse. She denies a history of sexually transmitted diseases. Her husband has a child from a previous marriage. On rectovaginal exam, she has uterosacral nodularity and a fixed, retroflexed uterus.
- What diagnostic test would be the most appropriate at this point to make the diagnosis? Laproscopy and send it to Pathology lab
- What findings would you see on a tissue biopsy?

Definition

- Endometriosis is defined as the extrauterine presence of functioning endometrial glands and stroma.

- Estrogen stimulates the growth of endometriotic implants similar to its effect on normal endometrial tissue.

Sites of Endometriosis

- **Common**
  - Ovary : 60%.
  - posterior cul-de-sacs.
  - vesicouterine space
  - Peritoneum over uterus.
  - Broad ligaments/fallopian tubes/round ligaments.
  - Uterosacral ligaments.
  - Bowel.
  - Pelvic lymph nodes
- **Less common**

-laparotomy and episiotomy scars.

-appendix

-pleural, and pericardial cavities

-cervix.

Sites

Etiology

- Theories of the Pathogenesis of Endometriosis
- The etiology of endometriosis is unknown. Several theories have been postulated:

- Retrograde menstruation.
- Immunologic factors
- Inflammatory factors
- Hormonal factors
- Coelomic metaplasia
- Lymphatic spread
- Genetic factors

Patient Characteristics

- Mean age at diagnosis is 25 to 30 years. The greatest incidence has been observed in nulliparous women with early age at menarche and shorter menstrual cycles .
- Rare in multiparous because most of them came with Infertility

Clinical Presentation

- Up to one-third of women may be asymptomatic

➢ - Pelvic pain(that is especially worse during menses, but can be chronic):

- Secondary dysmenorrhea (pain begins up to 48 hr prior to menses).
- Dyspareunia (painful intercourse) as a result of implants on pouch of Douglas; occurs commonly, with deep penetration.
- Dyschezia (pain with defecation): Implants on rectosigmoid.
- Dysuria :implant in urinary system .

Infertility.

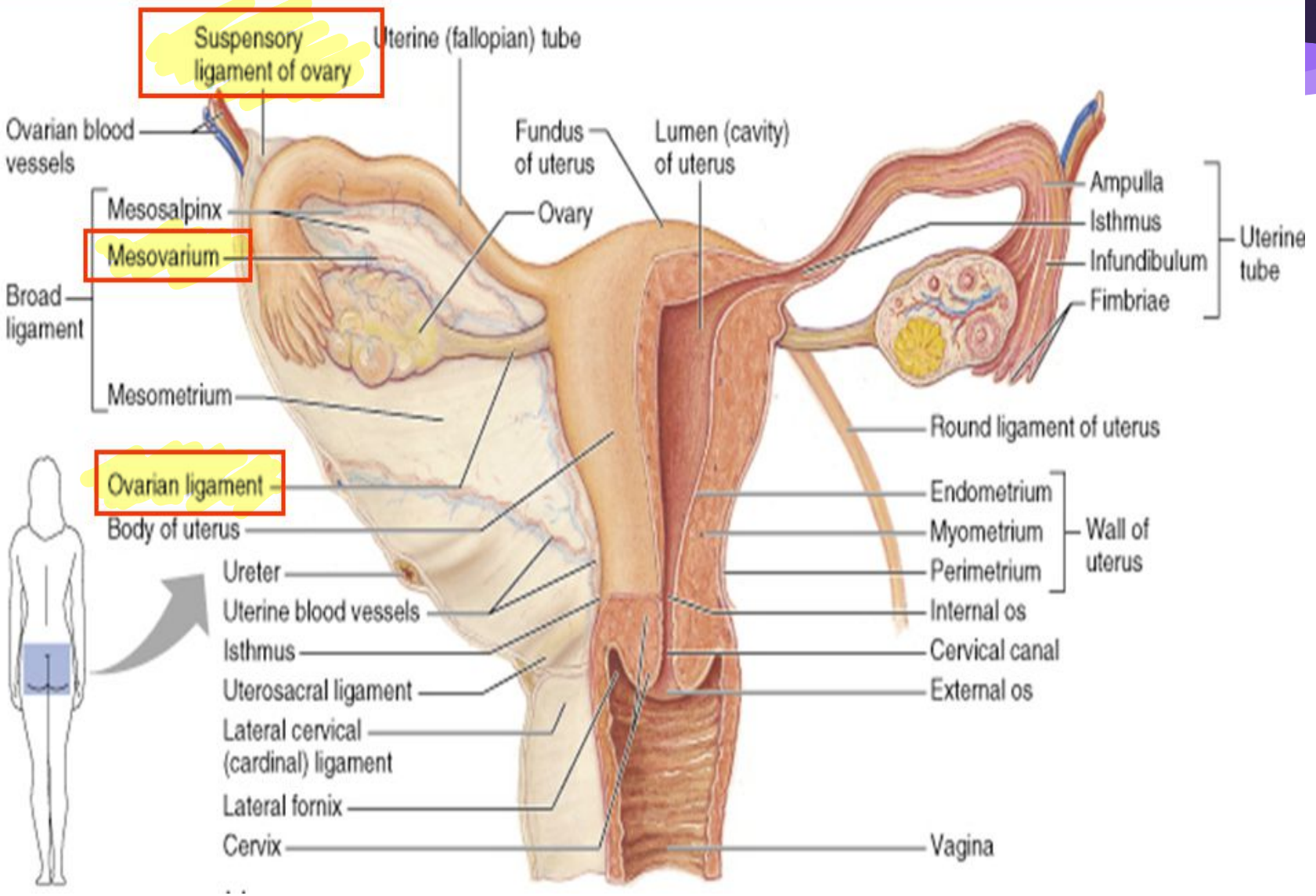
- Intermenstrual bleeding.
- Cyclic bowel or bladder symptoms (hematuria).

The most common symptoms are infertility and pelvic pain

Abnormal Clinical Findings Associated with Endometriosis

- Nodularity of the uterosacral ligaments, which are often tender and enlarged
- Painful swelling of the rectovaginal septum
- Pain with motion of the uterus and adnexa
- Fixed retroverted uterus and large immobile adnexa are indicative of severe pelvic disease.

Ligaments of ovary



Diagnosis

- Experienced clinicians often presumptively diagnose endometriosis based on **clinical history** and timing of symptoms.
- **Pelvic ultrasonography** can be useful in differentiating the presence of endometriomas (CHOCLATE CYST) from other adnexal masses.
- **Diagnostic laparoscopy** (gold standard)

we can take a sample and send it to histopat

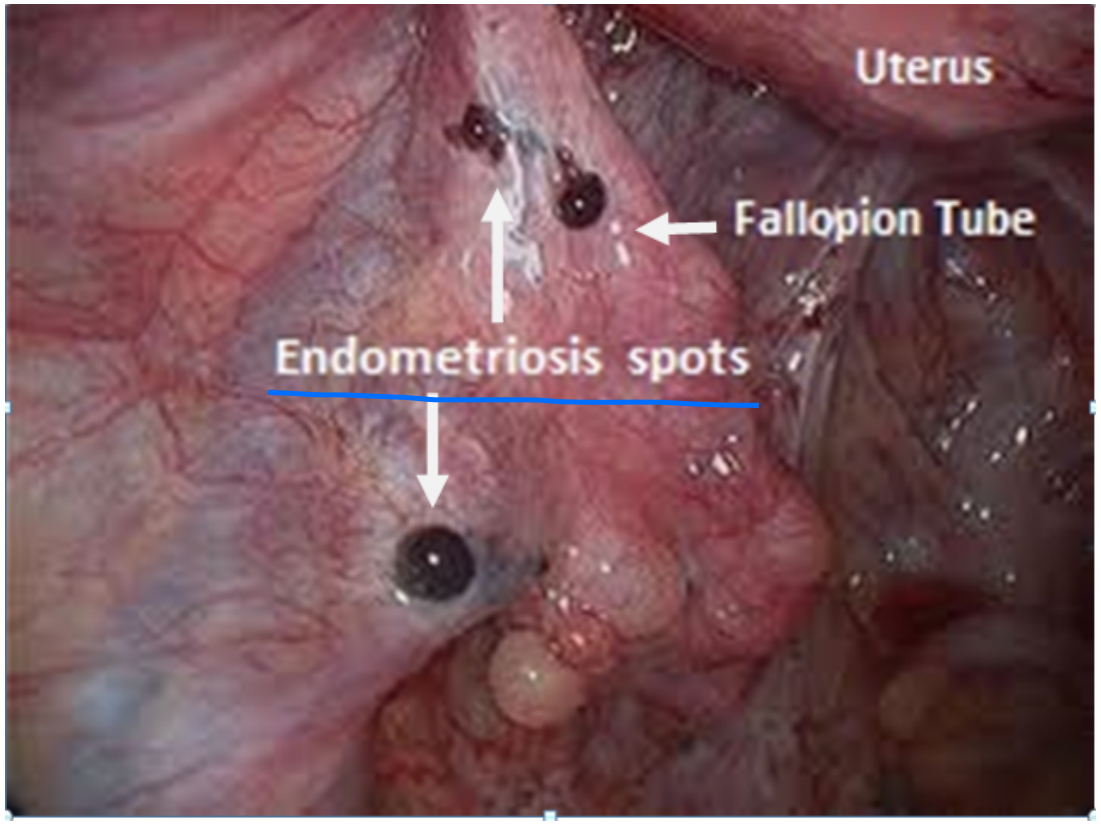
a marked discrepancy in appearance of the endometriotic lesions:

a.classically appear as blue-black powder-burn.

b. Nonclassic lesions may appear vesicular, red, white, tan, or nonpigmented. The presence of defects in the peritoneum (usually scarring overlying endometrial implants) is known as Allen-Masters syndrome.

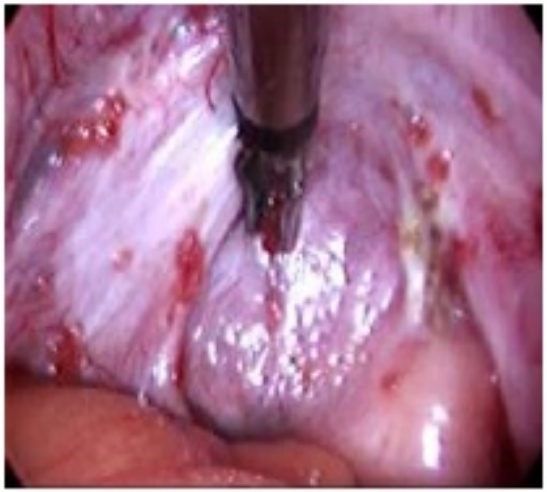
c. Endometriomas, "chocolate cysts," appear filled with dark brown blood.

Laparoscopic finding :

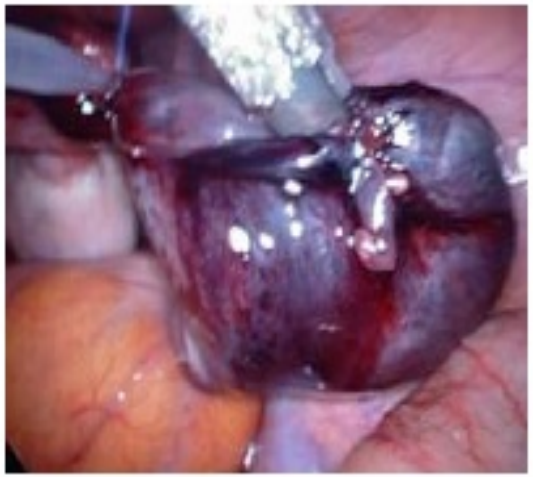


chocolate cyst

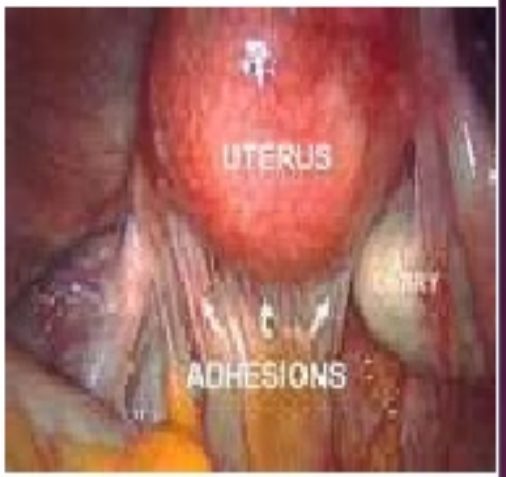
MACROSCOPIC APPEARANCE OF ENDOMETRIOSIS



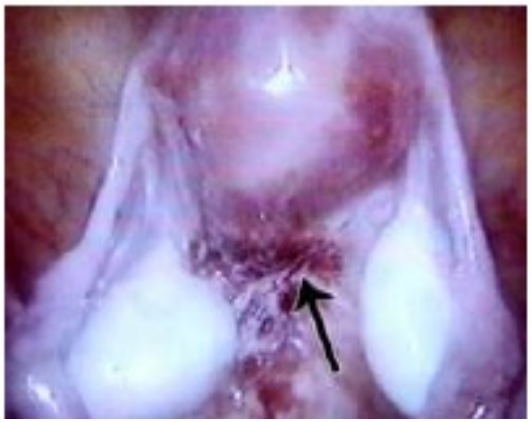
black, red, vesicular

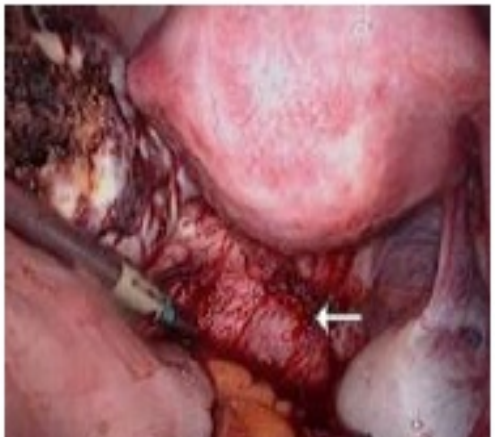


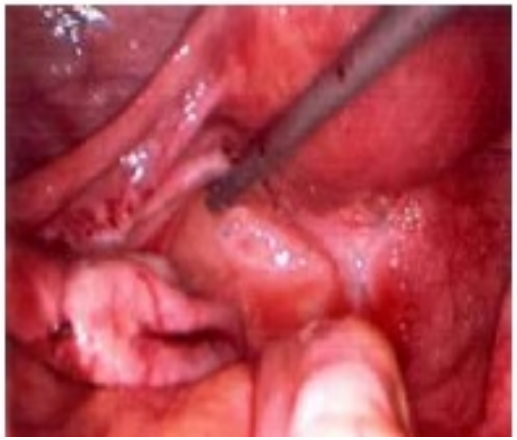
Endometriotic cysts



Adhesions







Definitive diagnosis

- Histology and examination of lesions removed at the time of surgery.
- Histology reveals both endometrial glands and stroma containing Hemosiderin-laden macrophages.

Management

A. Medical Treatment (**temporizing**) to treat symptoms

➢ Pain control with nonsteroidal anti-inflammatory drugs (NSAIDs) inhibits prostaglandin production by ectopic endometrium ,good first-line agent.

- Medical therapy is aimed at suppressing ovarian estrogen stimulation (induce amenorrhea) and cause regression of the endometriotic implants.

✓ Oral contraceptive pills (OCPs):

1-cause anovulation and atrophy of endometrial tissue.

2- Symptomatic relief of pelvic pain and dysmenorrhea is reported in 60% to 95% of patients.

A. Medical Treatment

- ✓ Gonadotropin-releasing hormone (GnRH) agonists: when given over the longterm suppress pituitary function by downregulating pituitary GnRH receptors. Induce "pseudomenopause."

e.g leuprolide acetate injection every month for 6 months. only not more than that

Side effects: use of a 6-months course to avoid the long-term consequences of the hypoestrogenic state on bone metabolism , vasomotor symptoms and lipid profile changes.

Add-back therapy : combined estrogen/progesterone

Is largely used for minimization of side effect of GnRH .

A. Medical Treatment

- ✓ Progestins: Progestins inhibit ovulation by luteinizing hormone (LH) suppression .
- ✓ Danazol (Danocrine): a testosterone derivative . It suppresses the midcycle LH surge

Androgenic side effects.

- ✓ Aromatase inhibitors

B. Surgical Treatment

- Conservative surgery :

-For patients with endometriosis-related pain but who desire future fertility.

-With laparoscopic excision or destruction of endometrial implants

B. Surgical Treatment

- A "semidefinitive" procedure that preserves an uninvolved ovary to avoids the long-term risks of surgical menopause.

- Definitive surgery entails total abdominal hysterectomy with bilateral salpingooophorectomy, excision of peritoneal surface lesions or endometriomas, and lysis of adhesions. → Pt will go to menopause

Hormone replacement therapy (HRT) after definitive surgery for the prevention of surgical menopausal symptoms

Endometriosis and Ovarian Malignancy

- INCIDINCE :0.3% to 0.8% of patients with endometriosis. ↳ will get ovarian malignancy
- TYPE : Clear cell and endometrioid carcinoma

Case scenario

- A 39-year-old G4P4 comes to the clinic complaining of increasing menorrhagia, dysmenorrhea, and an enlarging uterus. On physical exam, the uterus is 14 weeks in size, boggy, slightly tender, and mobile. What would be the next best step in management? adenomyosis

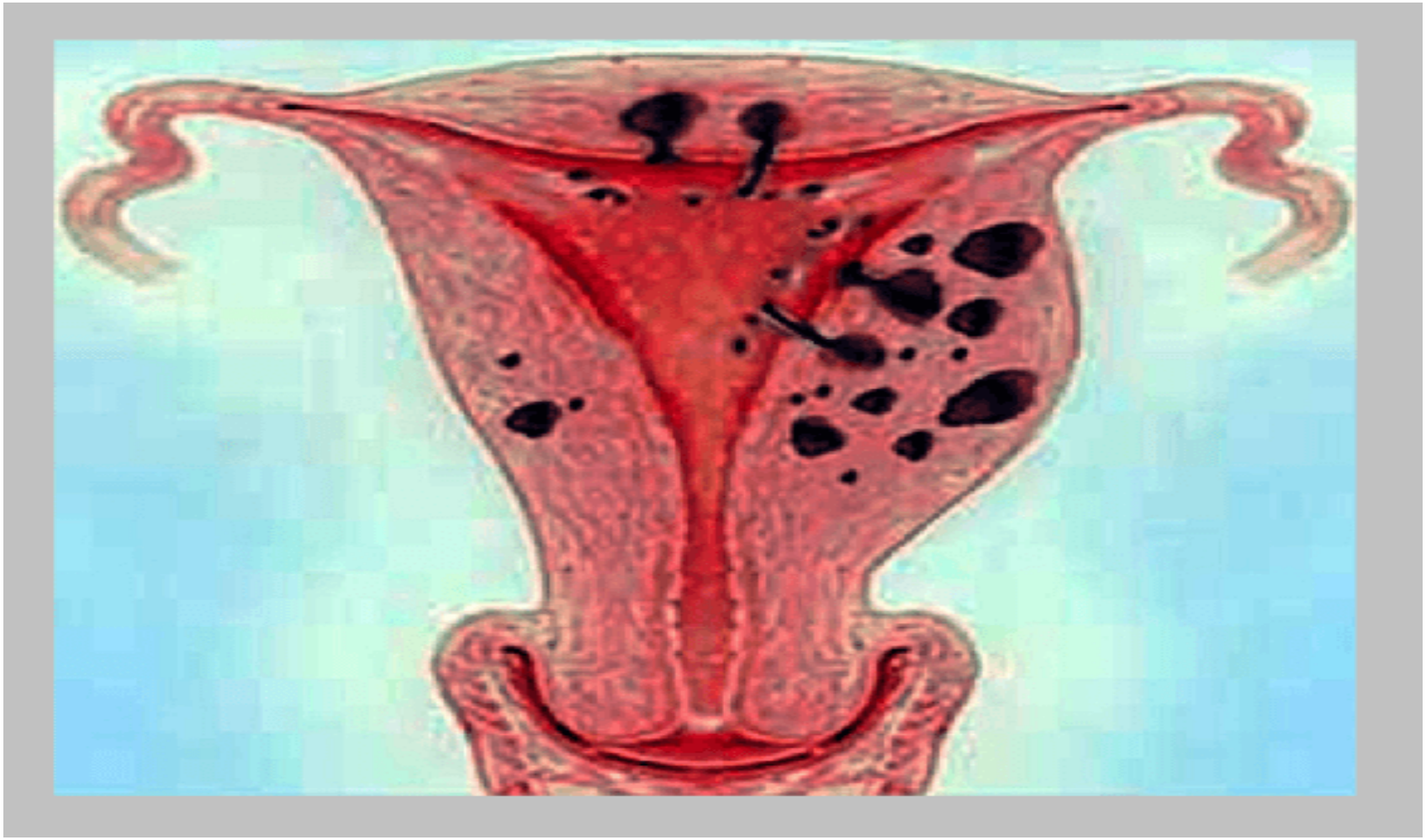
ADENOMYOSIS

- DEFINITION

Ectopic endometrial glands and stroma are found *within the myometrium*, resulting in a symmetrically enlarged and globular uterus.

- Usually in multiparous women in their 30s to 50s Rare in nulliparous women.

Adenomyoisis



Signs and Symptoms

- **Common**
  - **Pelvic pain (usually noncyclical).** not related to cycle
  - Symmetrical uterine enlargement.
  - Dysmenorrhea that progresses with duration of disease → pt is always complaining of abdominal and Back Pain

Dysmenorrhea in adenomyosis doesn't occur as cyclically as it does in endometriosis.

  - Menorrhagia: 50% of women are asymptomatic.

Diagnosis

- Either ultrasound or MRI can be used to differentiate between adenomyosis and uterine fibroids.
- The diagnosis is usually confirmed after histologic examination of the hysterectomy specimen.

TREATMENT

- **No proven medical therapy for treatment.**
- GnRH agonist, NSAIDs, and OCPs may be used for pain and bleeding.
- Hysterectomy: Definitive therapy if childbearing is complete.

ADENOMYOSIS VERSUS ENDOMETRIOSIS

- **Adenomyosis:**
- Found in older, multiparous women.
- Tissue is not as responsive to hormonal stimulation. Noncyclicalpain.
- **Endometriosis:**
- Found in young, nulliparous women.
- Tissue is responsive to hormonal stimulation.
- Cyclicalpain.

Q

44. A 35 year old woman presents with complaints of dysmenorrhea, dyspareunia and also is unable to become pregnant with her husband for 13 months now. What is the most likely reason for her complaints?

a) Pelvic inflammatory disease
b) Uterine fibroids
c) Ovarian cysts
d) Endometriosis

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Thank you (:

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