

# Endometriosis & Adenomyosis

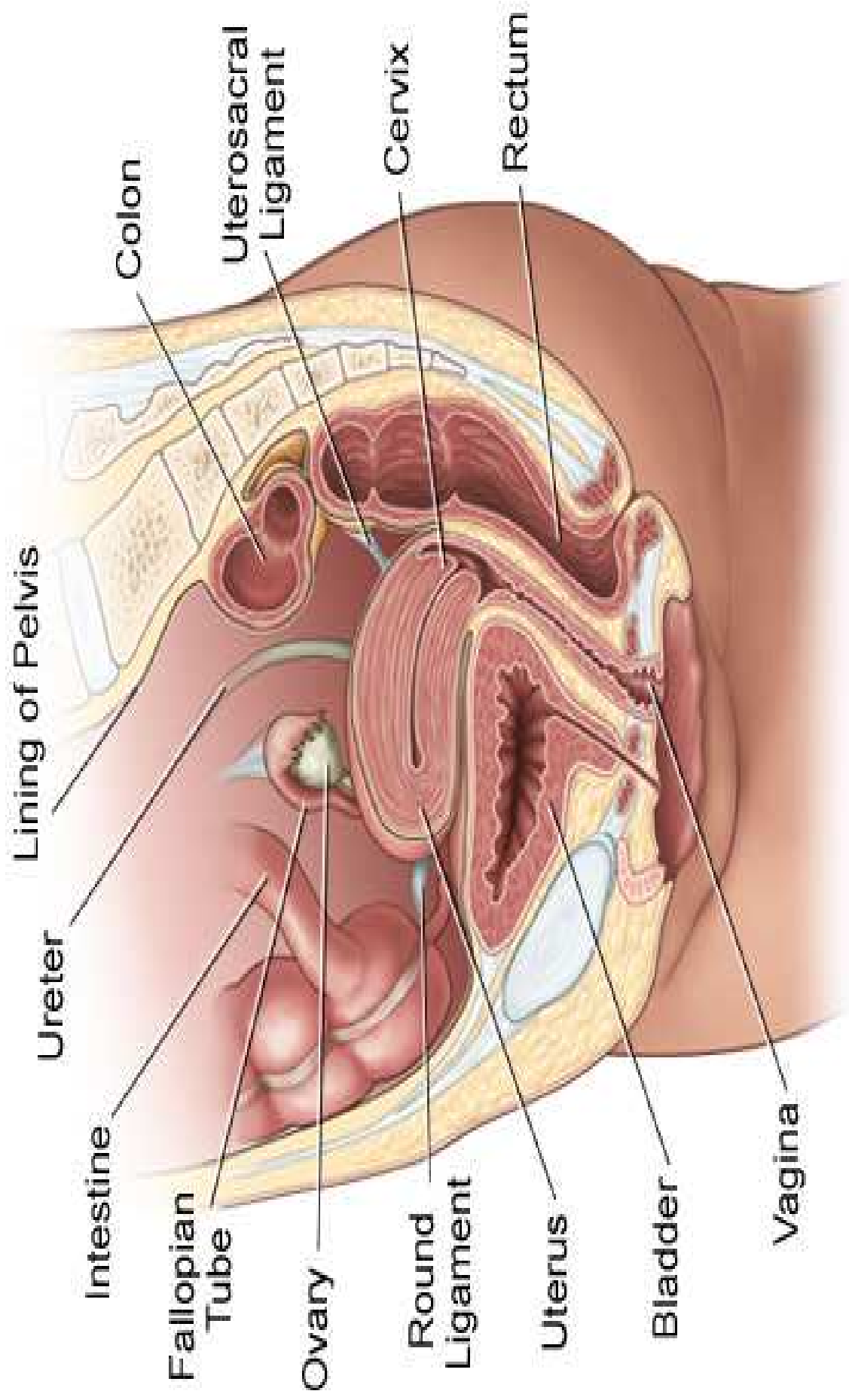
By

Asmaa kadhim

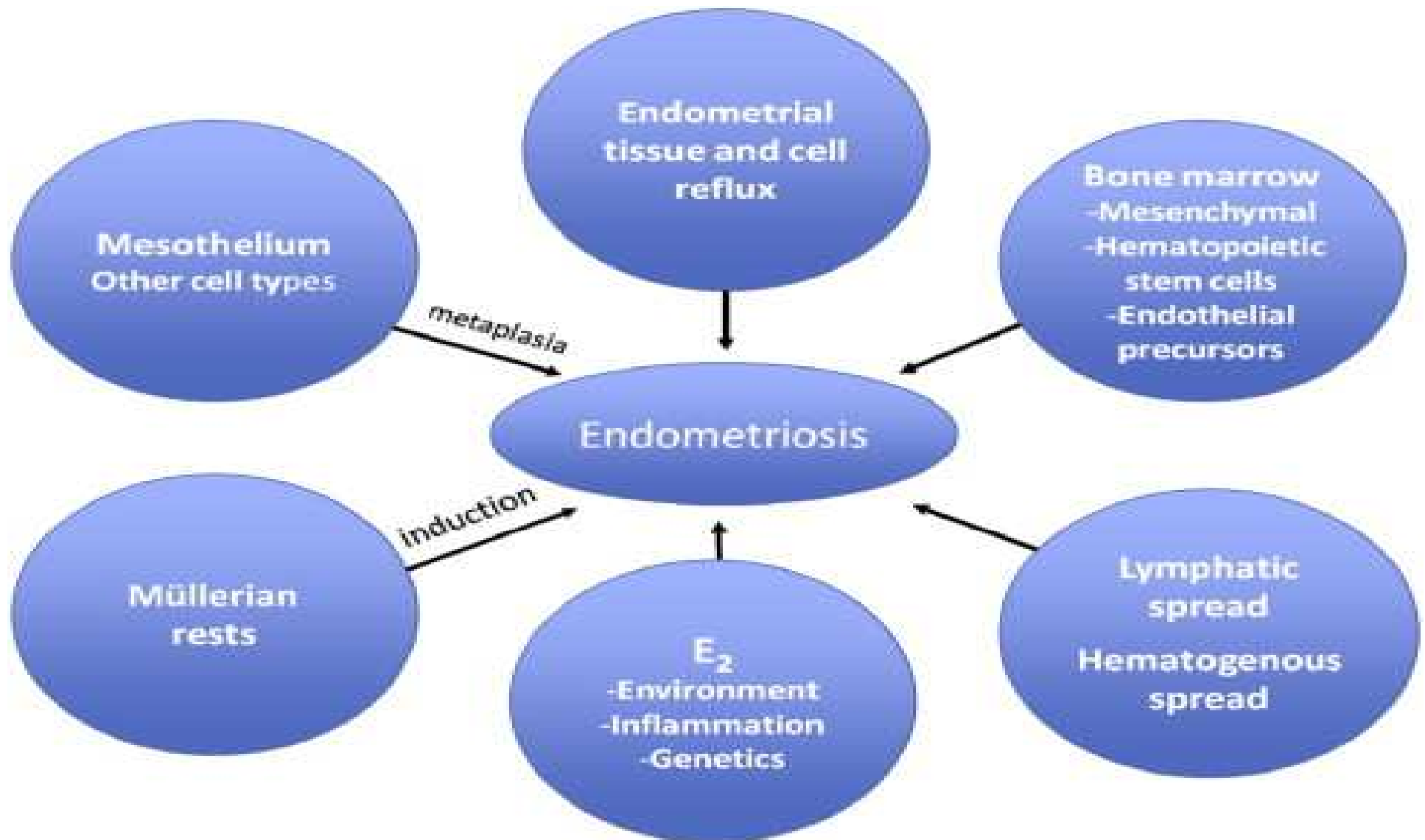
# Definition

- A condition in which actively functioning endometrial tissue and glands which are usually confined to the endometrium are found outside the uterus (ectopic endometrium).
- The presence of such tissues in ectopic sites elicits inflammatory changes and fibrosis.

## Possible Sites of Endometriosis



# Why endometriosis ??



## 3 theories about the histogenesis of endometriosis

1. Transplantation or regurgitation theory is based on the assumption that ectopic endometrial tissue is transplanted from the uterus to an abnormal location by way of fallopian tubes due to **regurgitation** of menstrual blood (**Retrograde menstruation**).
2. Metaplastic theory suggests that ectopic endometrium develops *in situ* from local tissues by *metaplasia* of the coelomic epithelium.
3. Vascular or lymphatic dissemination explains the development of endometrial tissue at extrapelvic sites by these routes (to lungs & nodes).

## Ovarian Endometriosis

Nodules implant in the lining of ovaries. When tissue around these areas hardens it can develop and proliferate into the fallopian tubes and bowels .

## Deep Infiltrating Endometriosis

The nodules implant at least 5mm below the peritoneum . Structures penetrated can include the uterosacral ligaments, bowel, bladder and ureters .

## Peritoneal Endometriosis

The peritoneum is the lining of the abdomen. Peritoneal endometriosis occurs when endometrial cells travel to and implant in the peritoneal wall.

## Risk Factors for Endometriosis

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Early menarche  
First-degree relative with endometriosis  
Late menopause  
Low body mass index  
Müllerian anomalies  
Nulliparity  
Prolonged menstruation (> five days)  
Shorter lactation intervals  
Shorter menstrual cycles (< 28 days)  
White race (compared with black race)

# Certain Risk Factors May Be Associated With Scar Endometriosis

- Hysterectomy
- Cesarean section before onset of labour
- Anterior placenta previa
- Early hysterotomy less than 22 weeks (early decidua has more pluripotential capabilities and lead to cellular replication )
- Heavy menstrual blood flow and
- Alcohol consumption

# Clinical presentation

Pain symptoms	Bleeding symptoms	Bowel & Bladder symptoms	Other symptoms
Painful periods	Heavy periods with or without clots	Painful bowel movements	Tiredness/Lack of energy
Pain on ovulation	Prolonged bleeding	Bleeding from the bowel	Depression
Pain during an internal examination	'Spotting' or bleeding between periods	Symptoms of irritable bowel (diarrhoea, constipation, bloating – particularly during your period)	Back pain
Pain during or after sex	Irregular periods	Pain when passing urine	Leg pain
Pelvic pain	Loss of 'old' or 'dark' blood before a period	Pain before or after passing urine or opening bowel	

# Diagnosis of Endometriosis

- **A Careful History** (The most important)
- **Rule out other Causes of Symptoms** (The next most important)
- **Examination** (not much help)
- **Ultrasound** (of little value)
- **MRI** (useful for rectovaginal deposits)
- **Laparoscopy** (The gold standard)
- **Serum CA125** (Lacks sensitivity)

# DIAGNOSIS

## Examination

On bimanual pelvic examination, fixed retroverted uterus, bilateral pelvic tenderness, fixed or enlarged ovaries and painful uterosacral nodularity.

Deeply infiltrating nodules are most reliably detected when clinical examination is performed during menstruation.

# DIAGNOSIS

**Laparoscopy** (Sensitivity : 97%, Specificity 95%)

Types of lesions on laparoscopy:

Powder burn or black lesions

White opacified peritoneum

Glandular excrescences

Flame like red lesions

Peritoneal pockets or windows

Clear vesicles

Yellow brown patches

Unexplained adherence of ovary to peritoneum of ovarian fossa

Encysted collection of thick chocolate coloured or tarry fluids

Adhesions to posterior lip of broad ligaments/other pelvic structures

# MACROSCOPIC APPEARANCE OF ENDOMETRIOSIS



black, red, vesicular



Endometriotic cysts



Adhesions



Pod obliteration



Bowel endometriosis marked distorted anatomy



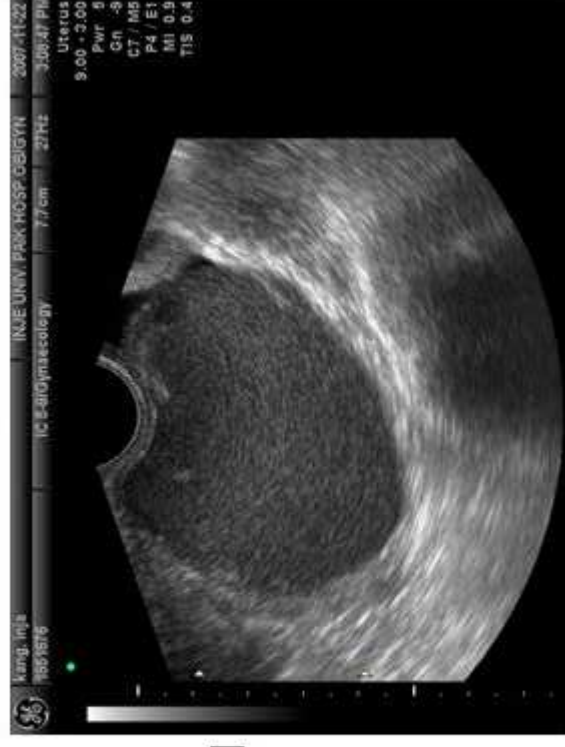
# Endometriosis staging

## Classification system by the AFS

- Stage I – minimal 1-5
- Stage II – mild 6-15
- Stage III – moderate 16-40
- Stage IV – severe >40
- Evaluation of areas of endometriosis (size, localization); adhesions (types, localization), posterior cul-de-sac obliteration, tubal occlusion

# Endometrioma

- Likely develop with long-standing endometriosis
  - infrequently in adolescents
- USG
  - a **ground glass appearance**
    - cystic ovarian masses with low, homogeneous echogenicity
- Management
  - Ovarian cystectomy
    - with **complete removal of the cyst wall**
      - not regress with hormonal therapy



# Treatment of Endometriosis

*Endometriosis is treated medically, surgically, or through a combination of both.*



## MEDICAL MANAGEMENT

- ❑ **Pain Medication**
- ❑ **Hormonal Medication**

Medical management includes management of pain with analgesics, as well as hormonal suppression, used to treat symptoms. It does nothing to improve fertility, treat adhesions, or resolve endometriomas.



## SURGICAL MANAGEMENT

- ❑ **Definitive surgery**
- ❑ **Conservative surgery**

**Hysterectomy** with or without removal of the ovaries is for women who do not desire fertility or for women for whom conservative surgery has failed.

**Conservative surgery** preserves the uterus, tubes and ovaries as much as possible and is focused on removing endometriosis and improving symptoms through **endometriosis fulguration, endometriosis resection (or endometriosis excision)** or **resection of ovarian endometriomas**.

## **Complications of endometriosis include:**

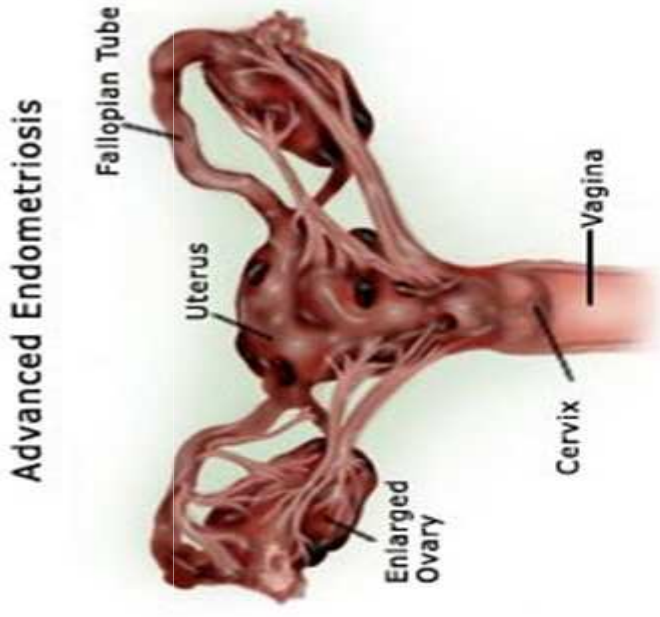
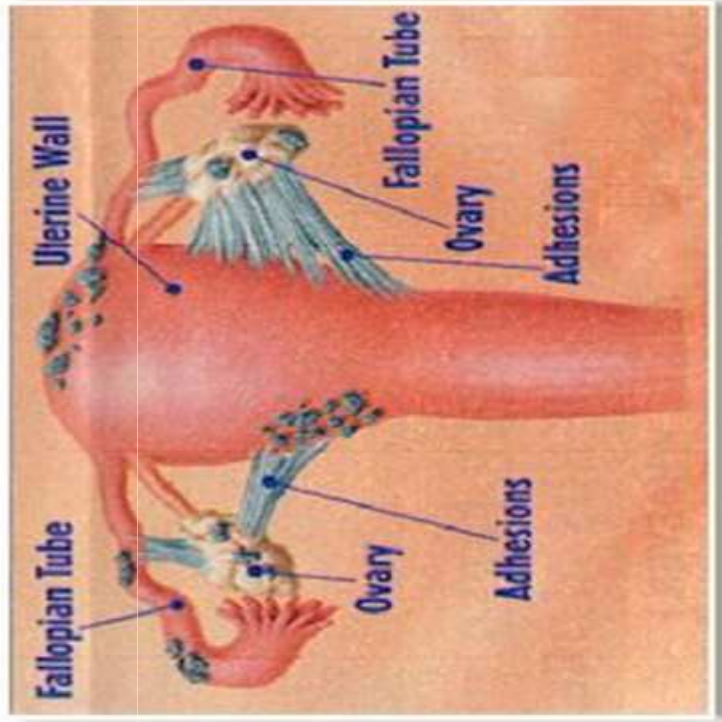
- **Internal scarring**
- **Adhesions**
- **Pelvic cysts**
- **Chocolate cyst of ovaries**
- **Ruptured cyst**
- **Blocked bowel (bowel obstruction)**

## **Endometriosis and infertility:**

- It is estimated that 30-40% of patients with endometriosis have difficulty in conceiving.
- In the severe disease there is usually anatomical distortion with peri-adnexial adhesions and destruction of ovarian tissues when endometriomas develop.
- But with mild disease it is still unclear why it cause infertility. Numerous mechanisms have been proposed, including abnormal folliculogenesis, anovulation, luteal insufficiency, luteinized unruptured follicle syndrome, recurrent miscarriage, decreased sperm survival, altered immunity, intraperitoneal inflammation and endometrial dysfunction.
- However, all these functional disturbances can occur in subfertile women without endometriosis,
- which suggests that finding disease during investigation for subfertility may be coincidental.

# Endometriosis, complications

- Infertility
- Adhesions



## Adenomyosis:

◆ Means the presence of endometrial glands and stroma deep **within the myometrium.**

-It has a different etiology than endometriosis.

-The exact etiology is unknown but it has been suggested to be related to **weakness of the myometrial smooth muscle from repeated pregnancies, or trauma induced by surgery.**

The incidence of this condition is more in:

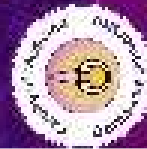
1. Multiparous women in their late thirties or early forties of age.
2. Women who has previous curettage or induced abortion.
3. More common in women having endometrial hyperplasia and fibroids.

◆ **clinically the patient presented with increasingly severe secondary dysmenorrhoea and menorrhagia.**

◆ The uterus is bulky and tender particularly if examined perimenstrually.

# Diagnosis Major Problem of treatment of Adenomyosis

- Differential diagnosis with a major and very common “other” uterine disease:
  - uterine **leiomyomas** 35 – 55 % coexistence).
- Knowledge and use of radiological diagnosis (TVUS, MRI) **not yet routine.**
- **Definitive diagnosis is in the hands of the pathologist!**
  - many diagnosis (post hysterectomy!)



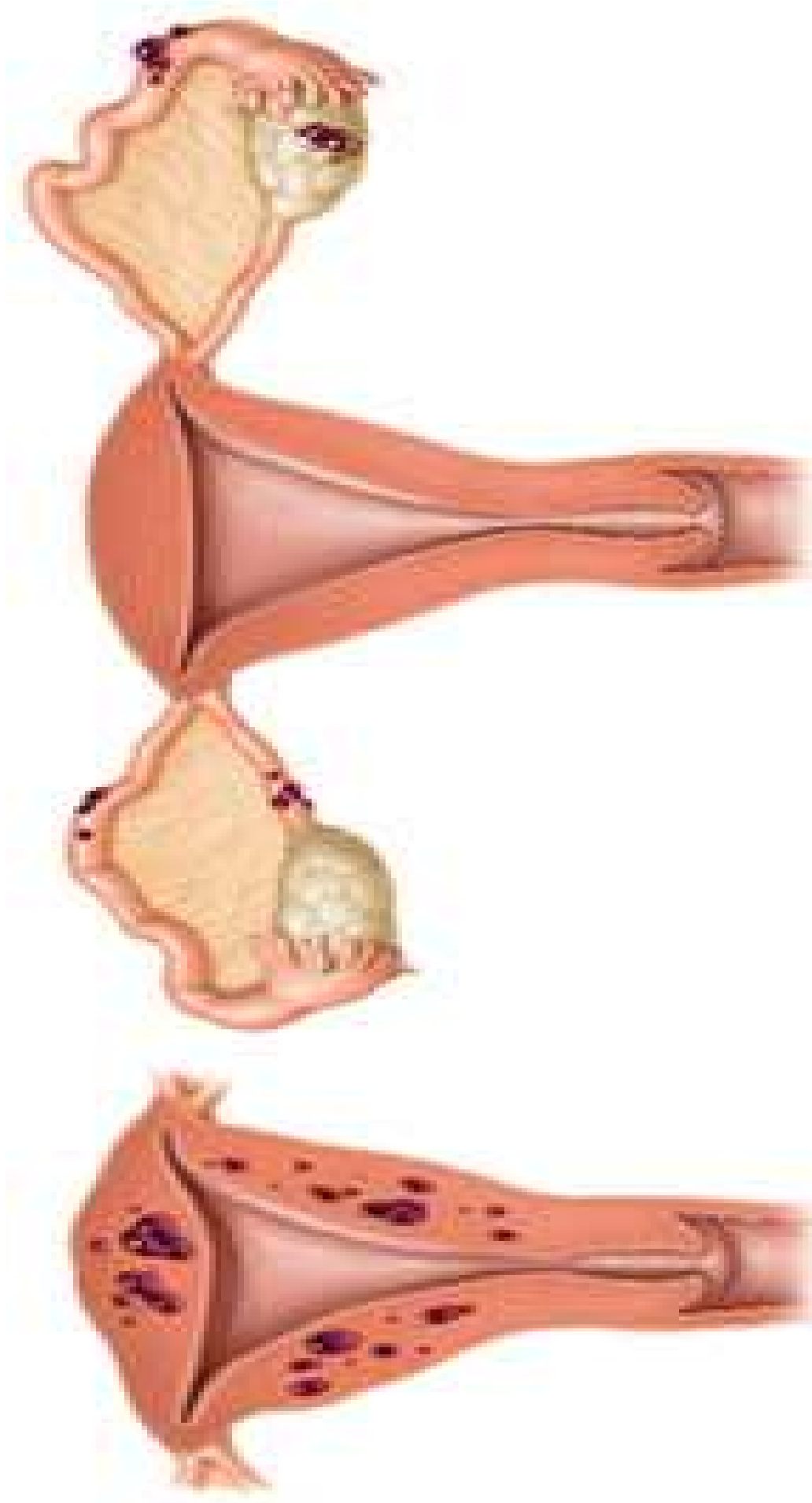
# ADENOMYOSIS:

## Treatment

- ❖ **Hysterectomy** – *definitive treatment*
- ❖ **Hormonal options**
  - Progestins (Levonorgestrel IUD)
  - Gonadotropin releasing hormone (GnRH) analogs
  - Aromatase inhibitors
  - ? Combined hormonal contraception
- ❖ **Conservative surgery**
  - Endometrial ablation or resection
  - Laparoscopic myometrial electrocoagulation
  - Excision of adenomyosis – no plane, “woody” tissue consistency
- ❖ **Uterine artery embolization (UAE)** – some success

Recurrent symptoms within 6 months after cessation of hormonal therapy

Endometriosis	Adenomyosis
<p>(+) Endometrial glands and stroma identical to lining of uterus in aberrant location</p>	<p>(+) Endometrial glands and stroma deep in myometrium</p>
<p>Occurs primarily in 25-45 y/o</p>	<p>40 y/o above</p>
<p>Symptoms: 35% with pelvic pain, usually presents as secondary dysmenorrhea or dyspareunia or both</p>	<p>Symptoms: Derived from aberrant glands of basalis layer of endometrium (decidua basalis no proliferative and secretory change) → majority asymptomatic</p>
<p>Signs: enlarged ovaries, tender nodules within pelvis</p>	<p>Signs: enlarged uterus, rarely more than 14w size</p>



**Adenomyosis**

**Endometriosis**

Thank you