Endometriosis

Definition: Presence of functional endometrial tissue outside the lining of the uterine cavity"

or proliferation of endometrium in any site other than the uterine mucosa.

It is usually confined to the pelvis in the region of the ovaries, the cul-de-sac, the uterosacral ligaments,and the uterovesical peritoneum, though remote sites may be affected as well.

Epidemiology: Age: common in reproductive period

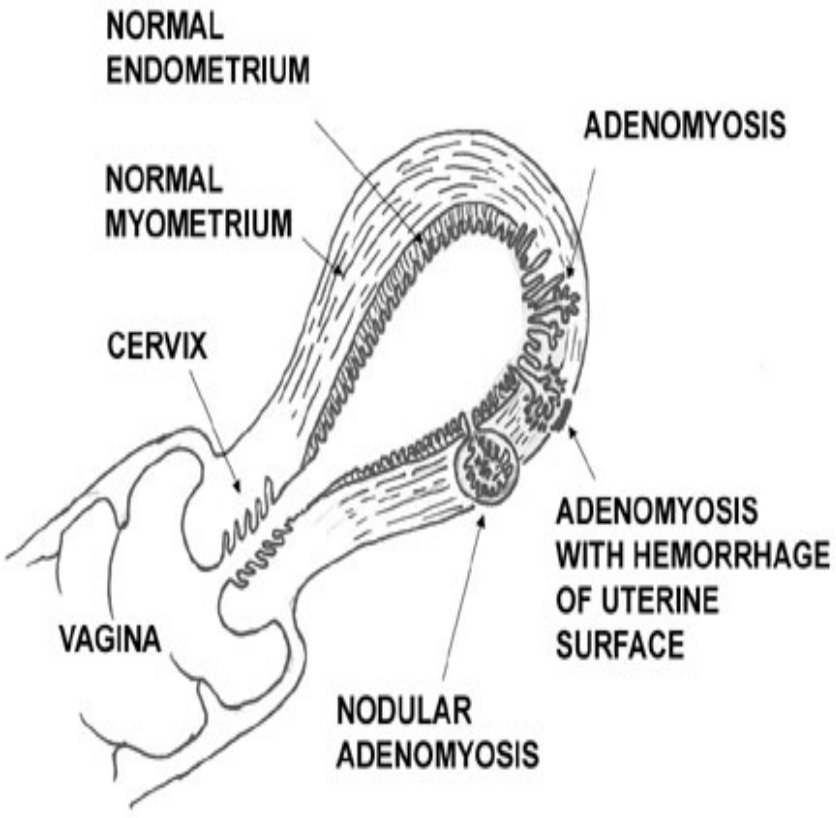
True Incidence Unknown: but an incidence of is reported in many text books as 1-5% & 30 – 50 % in infertility patients. It does not discriminate by race.

Histology: Endometrial Glands with Stroma +/- Inflammatory Reaction.

Herdietary (↑↑ among sisters). A high familial incidence of endometriosis has been confirmed by controlled studies.

Sites: Ovary 30%, pelvic peritoneum 10%, fallopian tubes, vagina, bladder & rectum,

pelvic colon and ligaments.



SITES OF PELVIC ENDOMETRIOSIS (Fig 1)

Extra pelvic sites: the umbilicus, scars of previous operations, lung, pleura.

Pathogenesis:

Theories of histogenesis of endometriosis fall into three general groups.

1- Those who assume that ectopic tissue is transplanted from the uterus to a pathological location usually within the peritoneum of the pelvis by way of the uterine tubes (retrograde menstruation).
2- Those which suggest that ectopic endometrium develops in situ from local tissues by metaplasia.
3- Those who suggest that the disease develops by combinations of these hypotheses.

Predisposing factors:

1- Hyperoestrogenism**:** This may be associated with

a) Fibroid & metropathia hemorrhagica.

b) Delayed marriage, infertility.

c) Oestrogen secreting tumours of the ovary e.g. granulosa & theca cell tumours, or with prolonged oestrogen therapy.

2. Cervical Stenosis.

3. Insufflation.

4. Curettage.

Diagnosis:

Endometriosis is often misdiagnosed leading to delays in treatment sometimes for several years. Delay in diagnosis could leads to *progression of symptoms & increasing infertility till completed reproductive failure*

Symptoms: the disease may be asymptomatic .But most patient they presents with pain.

1- Pain (DYS…….):

- Dysmenorrhea (crescendo = progressive)

- Dyspareunia deep type

- Dyschesia.

- Dysuria.

Backache.

Premenstrual tension syndrome and some patients may present as acute abdomen.

2-Bleeding:

- Menorrhagia.

- Cyclic hematuria during menstruation.

- Cyclic bleeding per rectum during menstruation.

- Vicarious menstruation.

3- Infertility.

4- **Pelvic Mass**

5- **Intermittent pyrexia.**

Signs:

Pelvic examination may reveal:

1. Pelvic tenderness.

2. Fixed retroverted uterus.

3. Nodularity of the Douglas pouch and uterosacral ligaments.

4. Ovaries may **be** enlarged and tender. Ovarian cyst may **be** detected.

Investigations:

1- Laparoscopy. Permits a "see and treat" approach, although its effectiveness may be limited by the nature of the disease and the surgeon's skill.

2. Cystoscopy and proctosigmoidoscopy.

3. Histopathological examination. **Appearance: Macroscopic endometriosis may Appear:**

- **Brown**
- **Black ("Powderburn")**
- **Clear ("Atypical")**

4. Imaging **: ultrasound scan, Cat scan and MRI**

5. Serum CA - 125.

6. ? IL-8 & CEA.

Differential diagnosis:

1-Ovarian cysts, other types of ovarian cysts.

2. Pelvic inflammatory disease.

3. Other causes of nodularity in Douglas pouch as tuberculous peritonitis and metastases of ovarian cancer.

4. Other causes of haematuria , bleeding per rectum and acute abdominal pain if the patient is presented by one of these symptoms.

5. Asymmetrical enlarged uterus.

Staging: The disease staged according to the severity into four stages:

- **Stage I (minimal) 1 – 5.**
- **Stage II (mild) 6 – 15.**
- **Stage III (moderate) 16 – 40.**
- **Stage IV (severe) > 40.**

You can refer to advanced textbook for detailed staging.

Treatment:

- **Expectant.**
- **Medical.**
- **Hormonal.**
- **Surgical.**

Expectant treatment: in young, asymptomatic infertile patient with mild endometriosis. If pregnancy does not achieve within 12 - 18 months of observation, hormonal or surgical treatment is indicated.

Symptomatizing patients with minimal or mild lesions:

1. Analgesics: for pain.
2. Prostaglandin inhibitors.
3. Pregnancy.
4. Opoids.
5. NSAID.

Indication for hormonal treatment:

1-Small endometriotic lesions.

2. Recurrence after conservative surgery.

3. Preoperative for 6-12 weeks to decrease size.

4. Postoperative for residual lesions.

5. When operation is contraindicated or refused by the patient.

Aim of the hormonal therapy

A-Pseudo-pregnancy: inducing pseudo-pregnancy by

1. Combined low - dose contraceptive pills(6 - 18 months to inhibit ovulation and menstruation and induce decidualization to endometriotic tissues).

2. Progestins (to avoid oestrogen's side effects medroxy progesterone acetate Depo medroxy progesterone acetate (DMPA) can be given in a dose of 150 mg IM every I - 3 months .

B-Pseudo-menopause (induction of amenorrhoea) by:

1. Danazol.
2. Gn RH analogues.
3. Gestrinone.
4. Gossypol.

Surgical Treatment (Laparoscopy / Laparotomy)

Excision or fulguration

Resection of endometrioma.

Lysis of adhesions, Cul-de-sac Reconstruction.

Uterosacral Nerve Ablation.

Presacral Neurectomy.

Appendectomy.

Uterine suspension to prevent fixed retroversion of the uterus.

Hysterectomy with or without salpigo-ophrectomy.

Conclusion: Endometriosis is a mystery tour as it requires decision making at every stage by the physician and the patient. Endometriosis still stand as one of the most-investigated disorders in gynecology. So is one of the highest priorities for research.