Endometriosis

Endometriosis

Endometriosis is the presence of endometrial-like tissue outside the uterine cavity.

It is oestrogen dependent, and therefore mostly affects women during their reproductive years.

Incidence

- General female population: 10–12% (estimated).
- Infertility investigation: 20–50%.
- Sterilization: 6%.
- Chronic pelvic pain investigation: 20–50%.
- Dysmenorrhea: 40–60%.

Aetiology

The etiology of endometriosis is unknown, although there have been many theories.

1. Retrograde menstruation with adherence, invasion, and growth of the tissue (Sampson): Most popular theory
2. Metaplasia of mesothelial cells (Meyer)
3. Systemic and lymphatic spread (Halban)
4. Impaired immunity (Dmowski).

Sites of Endometriosis

COMMON

- Pouch of douglas
- Uterosacral ligaments
- Ovarian fossae
- Bladder
- Peritoneum

RARE

- Lungs
- Brain
- Muscle
- Eye

Symptoms according to site

Female Reproductive Tract

- Dsymenorrhoea
- Lower abdominal and pelvic pain
- Dyspareunia
- Rupture/torsion endometrioma
- Low back pain
- Infertility

Urinary tract

- Cyclical haematuria/dysuria
- Ureteric obstruction

Gastrointestinal tract

- Dyschezia (pain on defecation)
- Cyclical rectal bleeding
- Obstruction

Symptoms according to site

Surgical scars/ umbilicus	• Cyclical pain • Cyclical bleeding
Lung	• Cyclical haemoptysis • Haemopneumothorax

Examination

Bimanual pelvic examination for:

- Adnexal masses (endometriomas) or tenderness
- Nodules/tenderness in the posterior vaginal fornix or uterosacral ligaments
- Fixed retroverted uterus
- Rectovaginal nodules.

Speculum examination of vagina and cervix (rarely, lesions may be visible).

Investigations

Transvaginal USS:

- Endometriomas
- Possibly for endometriosis of urinary bladder or rectum.

Laparoscopy with biopsy for histological verification:

- Especially important for deep infiltrating lesions
- Positive is confirmative, negative does not rule it out
- Endometriomas >3cm should to be resected to rule out malignancy (rare).

Laparoscopy should not be performed within 3mths of hormonal treatment (leads to underdiagnosis).

Indications for laparoscopy:

- NSAID-resistant lower abdominal pain/dysmenorrhoea
- Pain resulting in days off work/school or hospitalization
- Pain and infertility investigation.

Endometriosis

MRI

Intravenous urography (IVU)

Barium enema (to assess extent of rectovaginal, bladder, ureteric, or bowel involvement).

Serum CA125 is sometimes elevated with severe endometriosis, but there is no evidence that it is a useful screening test for this condition.

Grading of Endometriosis

Location	Size	Depth of infiltration	Adhesions
Peritoneal	< 1cm	Superficial	Filmy or dense
Ovarian	1 –3cm	Deep	Extent of enclosure (<1/3; 1/3–2/3, >2/3)
Pouch of Douglas	> 3cm		Colour and form

The points are added up and the stage of endometriosis is graded accordingly:

Stage I : Minimal endometriosis (1–5 points).
Stage II : Mild endometriosis (6–15 points).
Stage III : Moderate endometriosis (16–40 points).
Stage IV : Severe endometriosis (>40 points).

Pain management

Drug	Applications/ duration	Effect	Side effects
COCP	Continuous >> cyclic Long term	Ovarian suppression	Headaches Nausea Stroke
Medroxyprogesteone acetate or other Progestagens	Orally or IM/SC injection (depot) Long term	Ovarian suppression	Weight gain Bloating Acne Irregular bleeding Depression
GnRH analogues	2nd line therapy SC/IM injection or nasal spray Short or long term Should never be used without add-back HRT	Ovarian suppression	Loss of bone density (reversible) Hot fl ushes Vaginal dryness Headaches Depression

Pain management

Drug	Applications/ duration	Effect	Side effects
Levonorgestrel releasing IUD	Intrauterine Long term (change every 5yrs if age <40)	Endometrial suppression; sometimes ovarian suppression	Irregular bleeding Spontaneous expulsion
Danazol	Oral 6mths (longest experience)	Ovarian suppression	Acne Hirsutism Irreversible voice changes
Aromatase inhibitors	Oral Probably 6mths (still experimental and not licensed)	Local oestrogen suppression in endometrial lesions	Ovarian cysts Loss of bone density (reversible)

Surgical treatment

- No RCTs have compared medical with surgical treatment.
- Surgical management indicated once medical treatment has failed.
- There are no data supporting preoperative hormonal treatment.
- Postoperative 6mths treatment with GnRH analogues is effective in delaying recurrence at 12 and 24mths (not the case with COCP).
- Coagulation, excision, or ablation are recommended surgical techniques and should be done by laparoscopy.
- As a last resort hysterectomy may be considered in patients with severe, treatment refractory dysmenorrhoea: if performed, bilateral oophorectomy should be considered with add-back HRT.

Treatments for subfertility

Medical treatment

- No medical treatment can improve fertility in endometriosis patients.

Surgical treatment

- Spontaneous pregnancy rate after surgical removal of endometriotic lesions is probably ↑ in minimal/mild endometriosis.
- Unclear efficacy for moderate/severe disease as no RCTs exist
- Endometriomas (≥3 cm) should be removed: best by cystectomy rather than drainage to ↓ recurrence rates.