Endometriosis
&
Adenomyosis

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Endometriosis
Endometriosis

Definition
• Presence and growth of endometrial glands and stroma outside the endometrial cavity
• A benign condition

Most cases of endometriosis Dx: 25 to 35 years

Prevalence
• Not known in the general population
• 5-10% in Caucasian
• 30- 40% in women with sub-fertility
• 30% of women with chronic pelvic pain
• 4-10% in women undergoing laparotomies
Why Endometriosis is important?

• Prevalent
• Distressing
• Associated with:
  o Sub-fertility
  o Chronic pelvic pain
• May invade adjacent organ; GIT. UT
• Typically affecting young women; 30s
• May present at extremes of reprod. age (rare)
• Scarification of old disease my cause obstructive symptoms in GIT and UT
Pathophysiology

?? Multifactorial
• Exact cause; not known
• Genetic predisposition
• Immune system

Theories regarding pathogenesis
• The retrograde menstruation
  Endometrial tissue can grow in vivo and in vitro
• The Mullerian metaplasia
  Metaplastic transformation of peritoneal mesothelium into endometrium
• The lymphatic spread
  20% of women showed endometrial tissue in pelvic lymphatic system
Endometriosis; sites

The pelvis
- Ovaries (most common site, 70%)
- Broad and uterosacral ligaments
- Fallopian tubes
- Peritoneal surfaces of the POD
- Rectovaginal septum
- Vagina, vulva, appendix

Extrapelvic site
- Laparotomy scars
- Lungs
- Forehead
- Axillae
Chocolate cyst (Endometrioma)
Pelvic peritonium; ovarian fossa
Vesico-uterine fold
Scar endometriosis
Clinical presentation; Symptoms

Risk factors: Caucasian. Nullip. High economic class

Symptoms:

Gynaecology symptom
- Pain: Dysmenorrhea, dyspareunia, chronic pelvic pain
- Pre and postmenstrual spotting
- May cause heavy periods
- Sub-fertility

Extragenital symptoms
- Dyschezia and PR bleeding
- Haematuria
- Masses in various places (Scar tissue)

But: may be asymptomatic, and diagnosed during surgery
Clinical presentation; Signs

Abdominal examination
- Usually unremarkable, except severe disease
- Tenderness following ruptured cyst
- Mass

Speculum
- Bluish discoloration of cervix or vagina

Pelvic examination
- A small, tender nodule in POD or uterosacralis
- Pelvic adnexal mass (tender, fixed)
- Fixed? Retroverted uterus / pelvic mass (adhesions)

During Laparoscopy / laparotomy
- Endometriotic spot
- Endometrioma
- Adhesions
Endometriosis; investigation

Ultrasound scan
- Adnexal mass
- Endometrioma

MRI
- To investigate a deep endometriosis
- Recto-vaginal masses
Endometriosis, DDx

- Pelvic inflammatory disease
- Acute salpingitis (? Hydrosaplinx)
- Haemorrhagic corpus luteum
- Benign ovarian cyst
- Malignant ovarian neoplasm
- Ectopic pregnancy
Endometriosis; Dx

Suspected on the basis of clinical presentation

• Afebrile, pelvic pain; a firm, fixed, tender adnexal mass; and tender nodules in the POD

Imaging

Ultrasonic / MRI (less frequently used)

• Adnexal mass; complex echogenicity, internal echoes suggestive of old blood

Blood investigations (No Dx blood marker)

CA-125

• Frequently elevated
• PPV: 20%
• Should not be used to Dx endometriosis
Laparoscopy in endometriosis

The definitive diagnosis
• Based on characteristic gross and histologic findings

Failure to identify disease visually on laparoscopy or laparotomy is due to
• Older implants may have a very subtle appearance
• Deeper lesions may not be visible

Therefore, biopsy of any suspicious lesions improves diagnostic accuracy

Laparoscopy
• Diagnosis
• Staging
• Treatment
Endometriosis; staging

The revised American Society for Reproductive Medicine classification of endometriosis

Four stages:

• Minimal
• Mild
• Moderate
• Severe

Based on the presence and size of the disease in various pelvic sites including:

• Peritonium
• Both ovaries
• Both tubes
Management

Indications for treatment

• Pain syndromes: Chronic pelvic pain, Dysmenorrhea, Dyspareunia
• Abnormal bleeding
• Ovarian cysts
• Sub-fertility caused by distortion of tubal and ovarian anatomy

The choice of Rx depends on:

• Age
• Fertility plans
• Severity of disease / symptoms
• Site of disease
• Involvement of other organ systems (GIT)
Management
Conservative, Medical, Surgical

Conservative

• Pain killer
• Avoid hormonal Rx. in women trying to conceive
• Patient support groups

Medical

Aim: To produce atrophy of ectopic endometrium
Agents: COCP, progestogens, GnRH agonist
  • All equally effective in reducing pain
  • Use limited by S.E
  • Symptoms recurrence is common after Rx cessation
Management
Conservative, Medical, Surgical

Surgical

Laparoscopy
• Ablation of superficial lesions (laser or bipolar)
• Excision of nodules
• Endometrioma: De-roofed / excision

Up to 70% of women report improvement
90%: Improvement persists for 1 year

TAH+BSO: Final option
Endometriosis and sub-fertility

30-40% of patients with endometriosis have sub-fertility

Pathophysiology of sub-fertility in endometriosis

- Distortion of pelvic anatomy and tubal adhesions
- Abnormal peritoneal and cellular function
- Ovulatory and endocrine abnormalities
- Impaired implantation

Management of endometriosis in sub-fertility

Hormonal medical Rx:
- Not indicated
- Causes anovulation, ? teratogenicity

Surgical:
- Of mild to moderate disease improves natural conception rates
- Of severe disease: improve success at IVF
Adenomyosis
Adenomyosis

Definition

• The extension of endometrial glands and stroma into the uterine musculature more than 2.5 mm beneath the basalis layer

Adenomyosis

• Often is an incidental finding during a pathologic examination in up to 60% of women in their 40s
• About 15% have endometriosis
• Islands of adenomyosis do not participate in the proliferative and secretary cycles induced by the ovary
Adenomyosis; gross appearance

The gross appearance of the uterus

• Diffuse enlargement of the uterus
• Thickened myometrium
• The endometrial cavity is enlarged
• Occasionally, may be confined to one part of the myometrium and of a round shape

Adenomyoma vs fibroid on ultrasound:

• The distinction may not be clear
• Unlike fibroid: no distinct capsule between the adenomyoma and myometrium
Adenomyosis; gross anatomy
Clinical presentation

Symptoms

Many are asymptomatic

Typically presentation

- Severe secondary dysmenorrhea
- HMB

Occasional deep premenstrual dysparunia

Pathophysiology of symptoms

- Adenomyosis islands do not respond to ovarian hormones

But:

- Prostaglandin release and local inflammatory changes persist leading to pain and vasodilatation causing HMB
Clinical presentation

Signs

Abdomen: Normal

Pelvic exam.:  
• Symmetrically enlarged, "soft", tender uterus in the premenstrual period  
• Occasionally asymmetrical like a fibroid uterus  
• Consistency of the uterus is softer than a fibroid

Diagnosis:  
• Usually on histology of hysterectomy  
• Ultrasound scan  
• MRI
Adenomyosis; Rx

Depends on symptoms

Conservative management
- NSAIDs
- Hormonal control
  - COCP
  - E2 patches
  - DMPA
  - Levonorgestrel IUD (Mirena IUS)

Surgical;
If conservative measures fail or contraindicated
- Hysterectomy
- Endometrial ablation “control the bleeding”