Endometriosis and Pregnancy

- pathophysiology of adverse obstetric outcomes:

(1) Altered secretory phase

(2) " proliferation
↳ -- endometrial thickness → -- implantation

(3) " Glycosylation
↳ -- endometrial receptivity

(4) Progesterone resistance. (endocrinal Theory من ال)

<u>action</u>:
- halt estrogen driven endometrial proliferation
- recruitment of specialized immune cells (important for implantation)
- Decidualization

<u>Mechanism</u>:
- acting on PRA & PR-B
↳ ++ 17β-hydroxysteroid dehydrogenase type 2 (convert E_2 to estrone)

<u>Endometriosis</u>
- -- 17βHSD
- -- PR-B

(5) Genotoxicity
- Oxidative stress ⇒ endothelial dysfunction
↳ PET
- Iron (in endometrioma) → Miscarriage
↳ affect oocyte → ?

(6)

3

(6) Defective placentation:

~~the~~ Mechanism:

- Altered junctional zone
- endometrial proinflammatory state

Result:

partial or absent remodeling of spiral a.

Result:

- PET - PTL - SGA - stillbirth

(7) Inflammation

~~imm~~ see immunology of endometriosis

(8) Endocrinal Theory

* ~~ar~~ aromatase (absent in normal endometrium)
↳ androgen to E_2

* $E_2 \rightarrow ++ COX2 \rightarrow ++ PGE_2$

* PGE → contractions, cervical ripening } PTL

◦ Endocrine Theory	◦ Altered secretory phase
◦ Immunologic Theory	◦ Altered proliferative phase
◦ toxicity	◦ A Defective placentation

Adverse perinatal outcome:

* **Maternal:**
  - PIH
  - GDM
  - PPH (Antepartum & postpartum)
  - complications of ++ : ART
  - Uterine surgery for adenomyosis ⇒ Rupture ut.

[illegible] - placenta previa ⇒ placenta accreta (in adenomyosis)

[illegible] - ++ CS
  - ++ malpresentation
  - ++ obstructed labor
  - technical challenges during C.S.
  - ++ OASIS (if rectovaginal endometriosis)
  - ++ failed induction of labor

+ **Fetal:**
  - PTL
  - SGA
  - stillbirth
  - PROM
  - miscarriage
  - 5 - Cong

SHiP (Spontaneous haemoperitoneum in pregnancy)

- Epidemiology:
  - 1 : 10 000
- Presentation:
  - hypovolemic shock or fetal hypoxia
  - timing: 60% 3rd △
    - 20% intrapartum
    - 20% postpartum
  - can cause: maternal & fetal mortalities

Management

surgery (1st choice)

Others:
- Expectant management: (stable mother & fetus)

Risk evaluation and management

- low risk endometriosis => low risk prg. managment
- High " " => High " " "

- High risk : - adenomyosis
  - ~~conception~~ ART
  - surgically treated peritoneal disease ~~and~~ and DIE

2.ks

Effect of prg on endometriosis :

~~**~~ Can :

1. ++ chronic pelvic pain
2. degeneration of adenomyoma — D.D - Chorioamnionitis → pain
   - acute appendicitis
   - adenomyosis abcess ← US
3. ++ size of endometrioma => cyst complications
   - ↳ torsion, rupture
   - ↳ infection
4. decidualization of endometrioma => mimic malignancy

Management

Preconceptional care

- Assessment of condition (High risk or low risk)

Antenatal care / For High risk

- PET
- DM
- PP
- SGA
- Sillbirth

+

Management of endometrioma = management of adnexal mass in pregnancy

- ↳ indication : complications
- ↳ Diagnosis Inv : U/S MRI (better in preg)
- ↳ ttt : Laparoscopy before 23 weeks up to 34 weeks

Intrapartum care

- time : induction at term
- Mode : V.D
- continuous fetal monitoring
- techical challenges during C.S :
- Intrapartum cystectomy of endometrioma
- active management of 3rd stage of labor

Postpartum care

- Counsell about:
  - Recurrence of symptoms
  - SHiP
  - endometrioma complications