

# Symptomatology in Gynecology & clinical reasoning (Part II)

Part II

Part III

ยกระดับสอบ  
วุฒิบัตร ถ้าออก  
ເຂົາແກ່basic

- 1. Vaginal discharge:
- 2. Genital Ulcers
- 3. Pelvic pain
- 4. Abnormal vaginal bleeding:
- 5. Mass or lumps
- 6. Amenorrhea
- 7. Pelvic Organs Prolapse
- 8. Abnormal pregnancy(ante/Intra/Post partum)
- 9. Infertility
- 10. Hirsutism
- 11. Galactorrhea

## Mnemonic for Differential diagnosis: TICGO

### TICGO

**T**rauma: Hx อุบัติเหตุ, กระแทกกระแทก

**I**nfection: ไข้

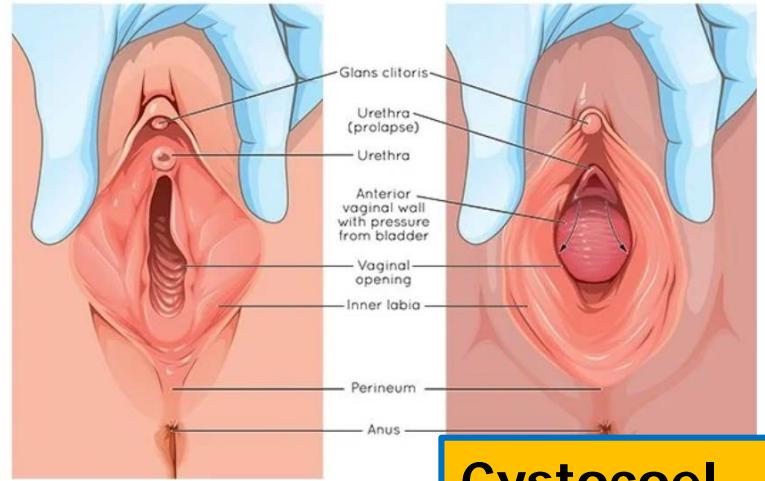
**C**ongenital anomaly: เป็นมาแต่กำเนิด แต่อาจมาแสดงอาการชัดภายในหลัง เช่น Imperforated Hymen / Mullerian agenesis / โรคลิ้นหัวใจร้า ...

**G**rowth(tumor): มีก้อน

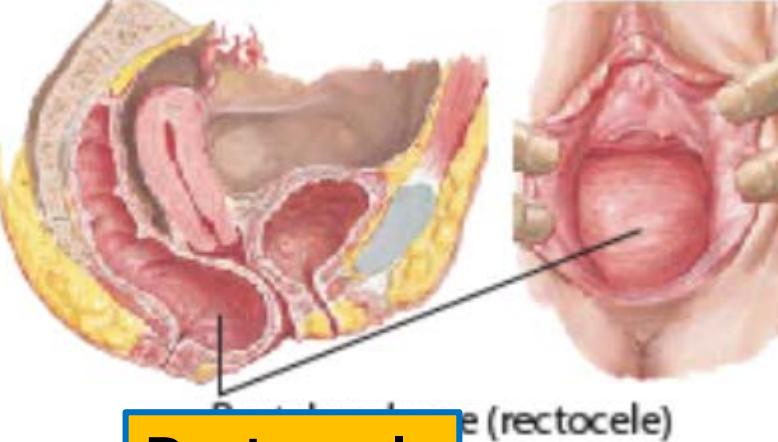
**O**thers: โรคที่มีสำคัญเฉพาะอวัยวะนั้นๆ เช่น สมอง(เส้นเลือดแตก ตีบ) มะลูก (ตั้งครรภ์

เลือดออก) ตับ(ตัวเหลือง) .....

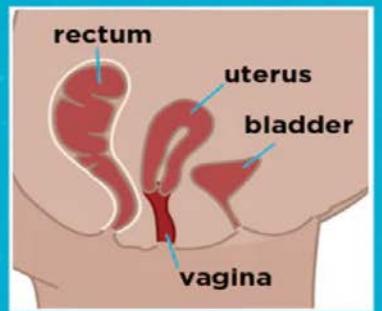
## 7. Pelvic Organs Prolapse



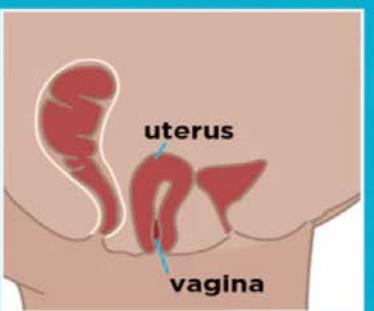
**Cystocele**



**Rectocele**

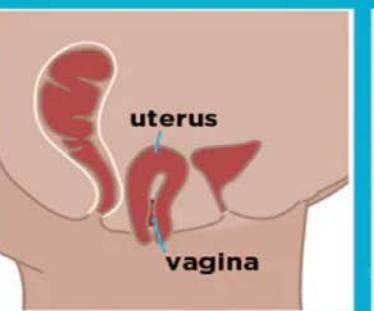


The uterus is in the upper half of the vagina



The uterus has now descended nearly into the opening of the vagina

**1<sup>st</sup> degree  
Prolapse Ut**



The uterus has protruded out of the vagina

**2<sup>nd</sup> degree  
Prolapse Ut**



The uterus is completely out of the vagina

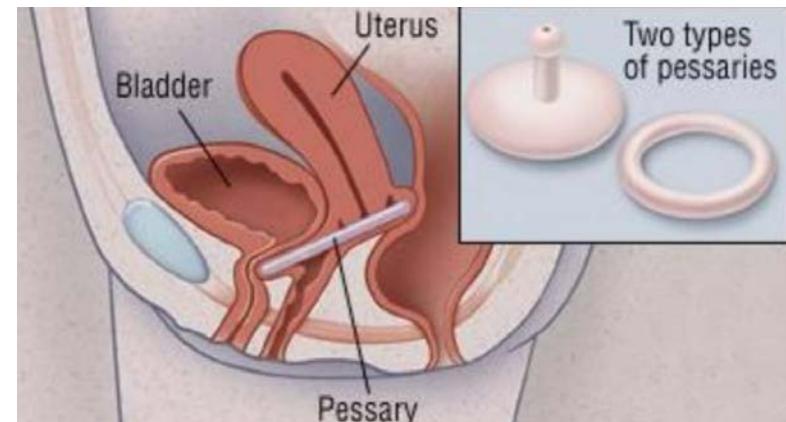
**3<sup>rd</sup> degree  
Prolapse Ut**

## อาการ

- stress incontinence
- ก้อนที่ปากช่องคลอด
- ถ่ายลำบาก

Rx:

- pelvic floor muscle training (PFMT)
- Vg pessary
- Vg Hysterectomy



## Pelvic Floor Muscle Training (PFMT)

- squeezing and lifting m. around pelvic openings (urethra, vg anus). (lying down, sitting, and standing) ไม่เกร็งกระเพาะ ต้นขา ไม่กลั้นหายใจ
- 1<sup>st</sup> line Rx for urinary incontinence (stress, urgency, and mixed): during and after pregnancy.
- routine performed multiple times(2-3) a day

•**Contract and rest:** Hold 6 to 8 sec/ rest 2-3 sec.

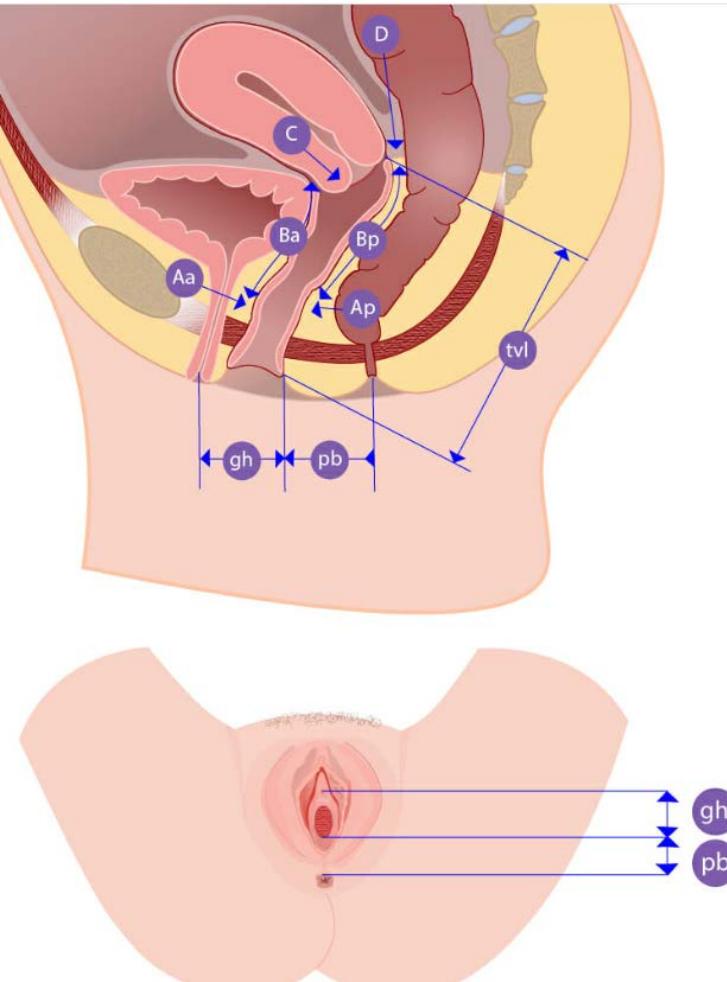
.gradually increase length/number of contractions/ decrease the rest periods.

Male: benefits

- Dribble after urination.
- urge incontinence
- fecal incontinence.
- may improve sexual function.

**FIGO**

ละเอียดเกินไป ใช้  
ประโยชน์ได้น้อย



<b>Aa</b>	Center of Front Vaginal Wall
<b>Ba</b>	Highest Point Vaginal Wall (Front)
<b>C</b>	Bottom Edge of Cervix
<b>D</b>	Highest Point in Vagina
<b>Ap</b>	Center of Back Vaginal Wall
<b>Bp</b>	Highest Point Vaginal Wall (Back)
<b>tvl</b>	Total Vaginal Length
<b>gh</b>	Genital Hiatus
<b>pb</b>	Perineal Body

#### POP-Q Staging Criteria

Stage 0	Aa, Ap, Ba, Bp = -3 cm and C or D $\leq$ -(tvl - 2) cm
Stage I	Stage 0 criteria not met and leading edge < -1 cm
Stage II	Leading edge $\geq$ -1 cm but $\leq$ +1 cm
Stage III	Leading edge > +1 cm but < +(tvl - 2) cm
Stage IV	Leading edge $\geq$ +(tvl - 2) cm

มดลูกหย่อน uterine prolapse : เพราะมีการหย่อนยานของ

1 ligament ที่ยึดมดลูก

Cardinal lig: หนาและแข็งแรงที่สุด  
(transverse cx lig) ยึดด้านข้าง

Uterosacral lig.

Round lig.

Suspensory lig.

**lig. อื่นๆ**  
 - broad lig .  
 - Ovarian lig  
 - mesovarium lig  
 - Pubocervical lig ยึดด้าน前往  
 - Utersacral lig ยึด post

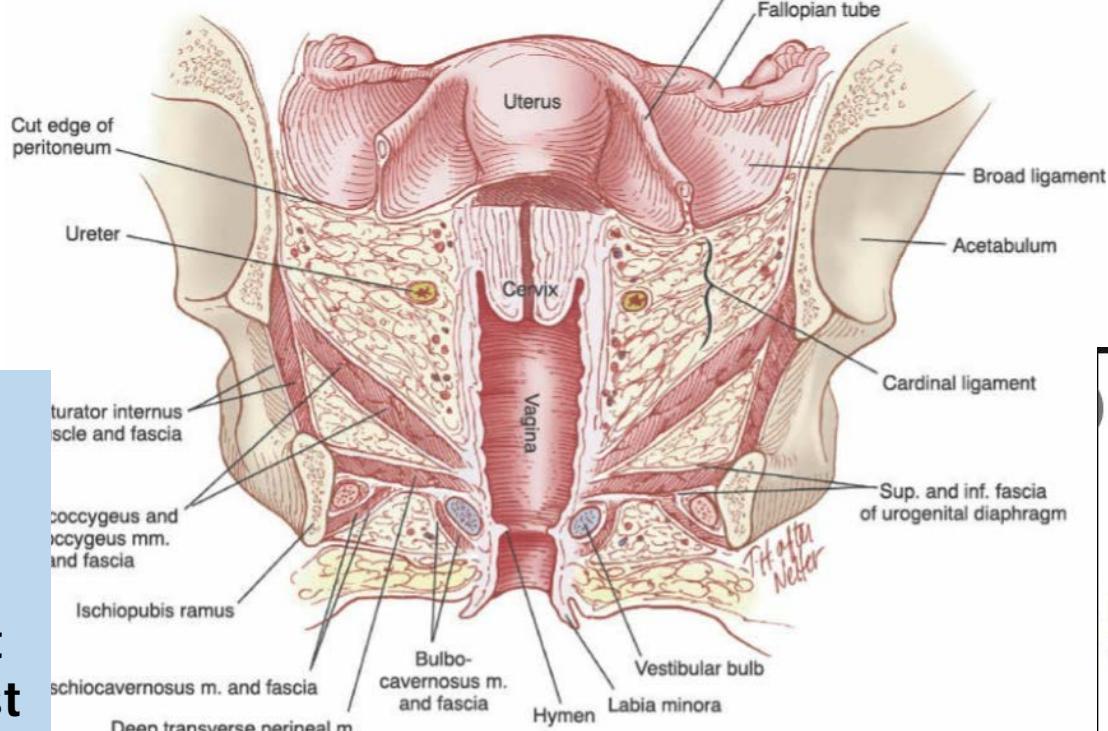
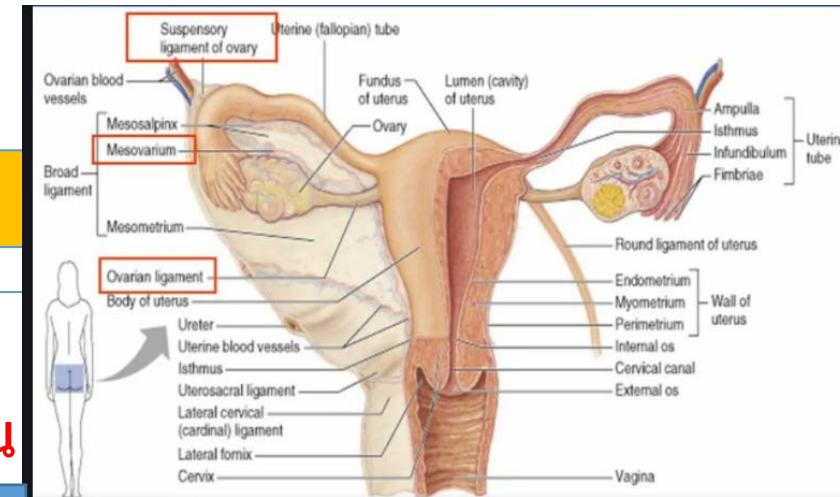


FIGURE 5-8 The ligaments and fascial support of the pelvic viscera.

2. กล้ามเนื้อช่วยพยุง  
pelvic diaphragm หย่อน

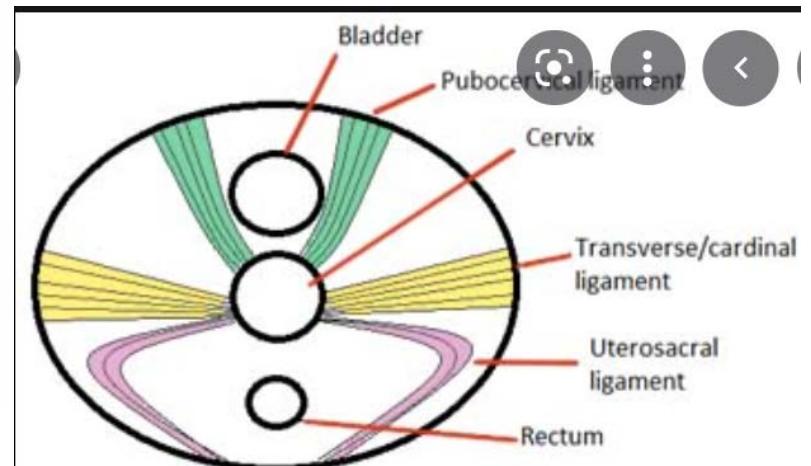


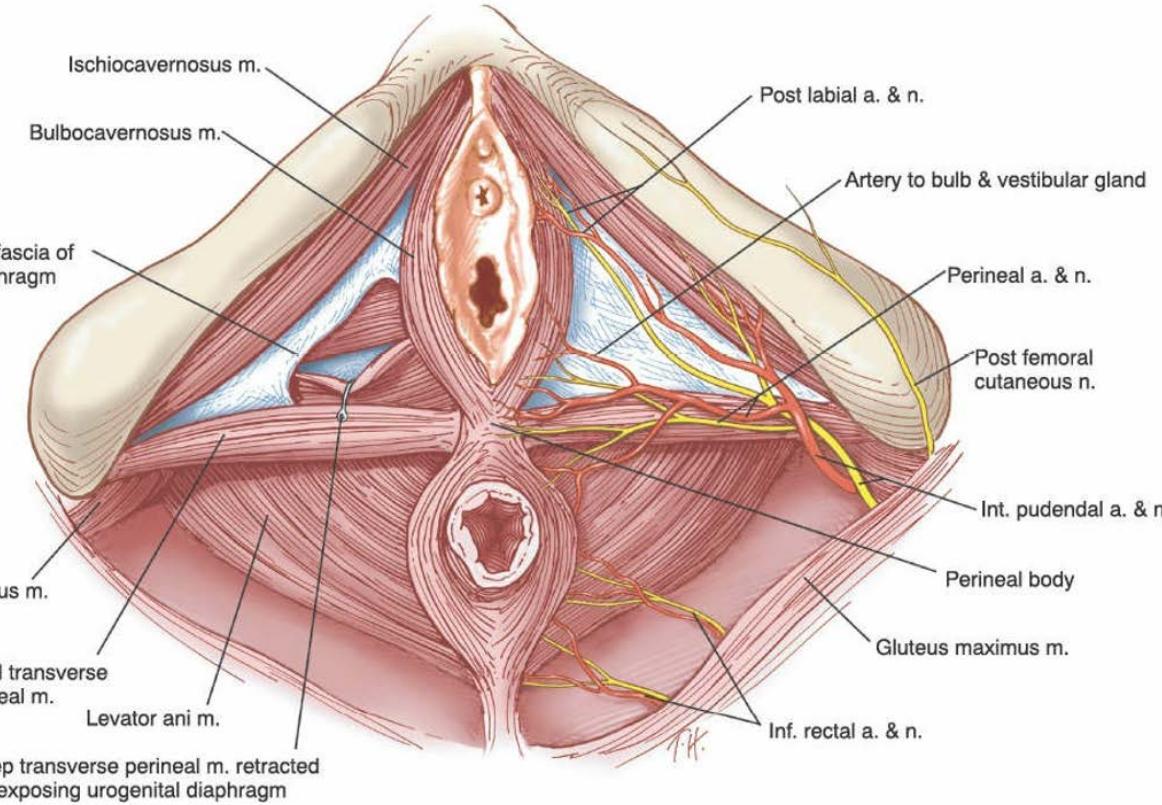
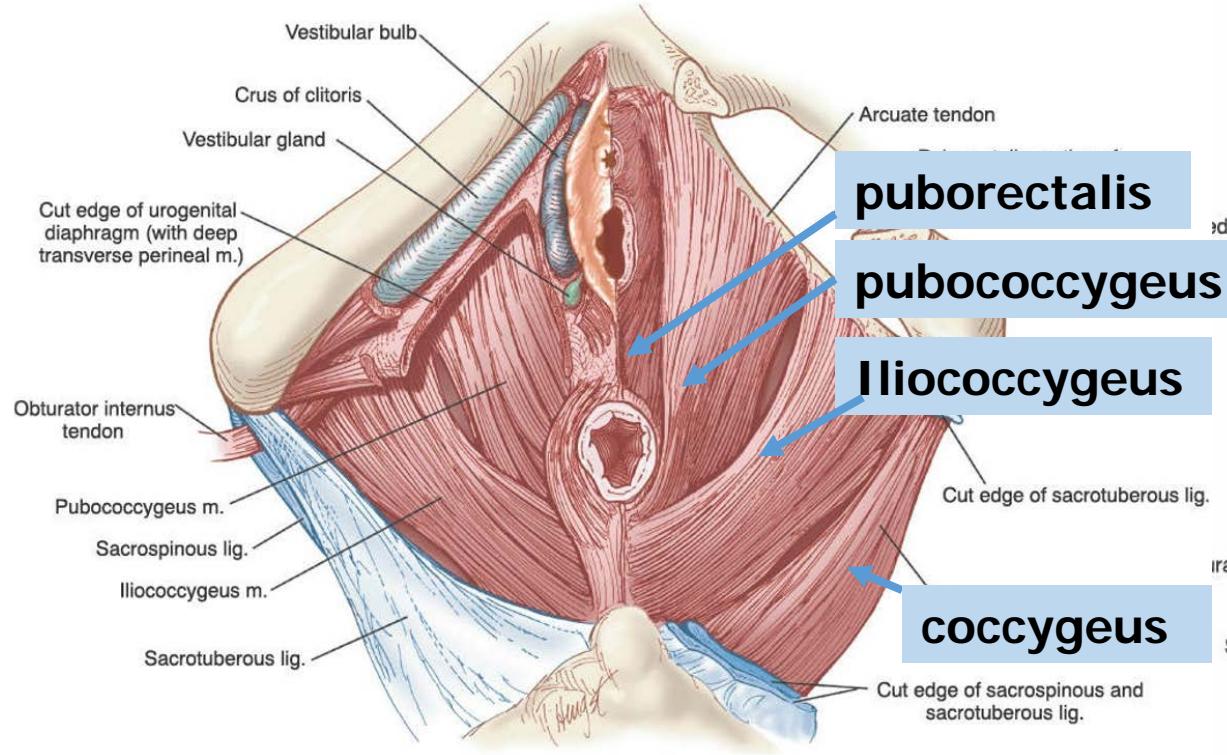
puborectalis

pubococcygeus

Iliococcygeus

coccygeus





**Novak' gynecology:**

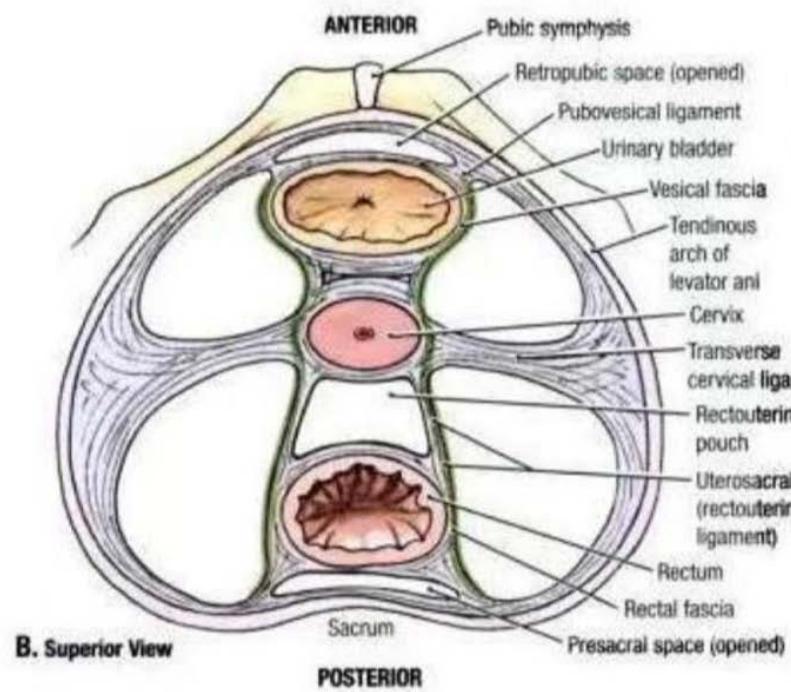
**levator ani m.= puborectalis+ pubococcygeus +iliococcygeus**

**Pelvic diaphragm= Levator ani + coccygeus m.**

8. A 45-year-old woman is admitted to the hospital with **lower abdominal and pelvic discomfort**. Pelvic examination reveals moderate **uterine prolapse**.

Which of the following structures is involved in this condition?

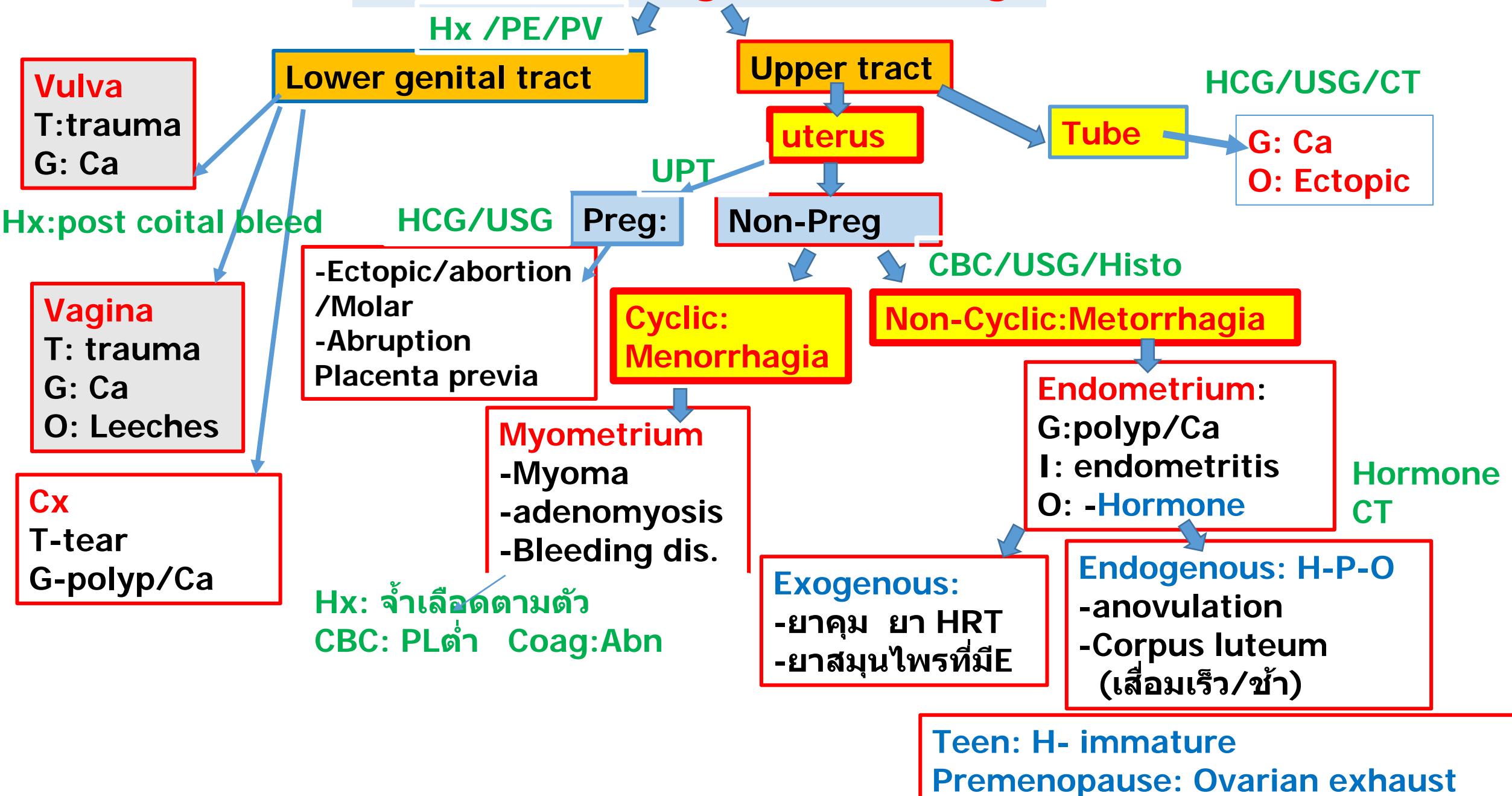
- a) Round ligament of the uterus
- b) Suspensory ligament
- c) Cardinal ligament
- d) Broad ligament
- e) Mesovarium



B. Superior View

- Supports of uterus :
  - \* Levators ani
- \* three important ligaments
- **transverse cervical (cardinal)**
- **pubocervical**
- (puboprostatic in male)
- **sacrocervical or rectouterine**
- (rectoprostatic in male)
- \* Urinary bladder

## 4. Abnormal vaginal bleeding:



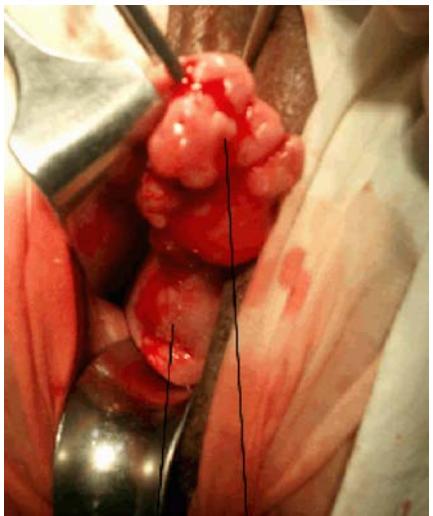
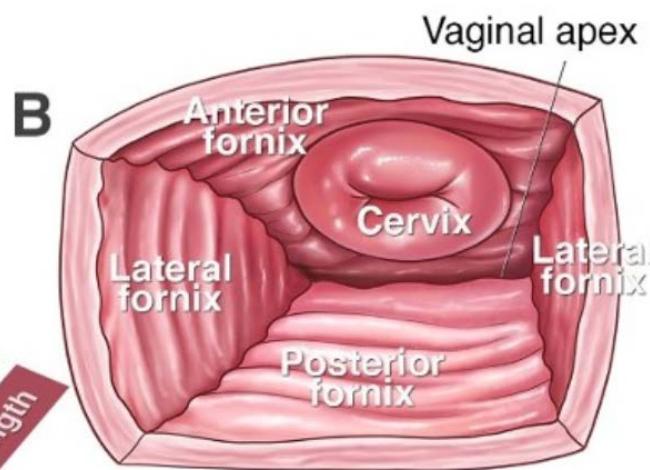
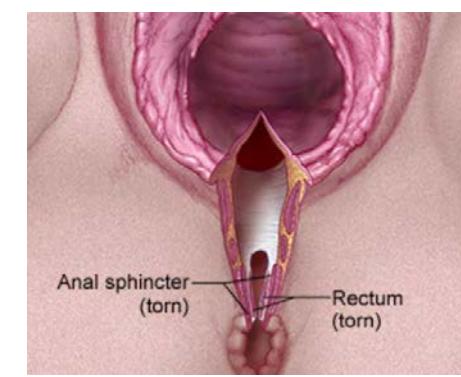
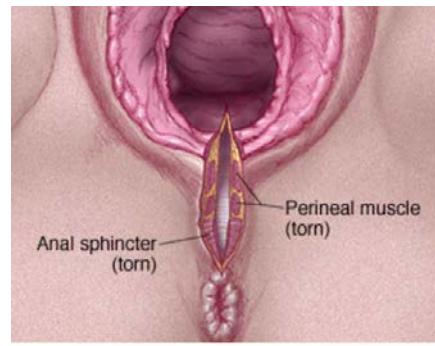
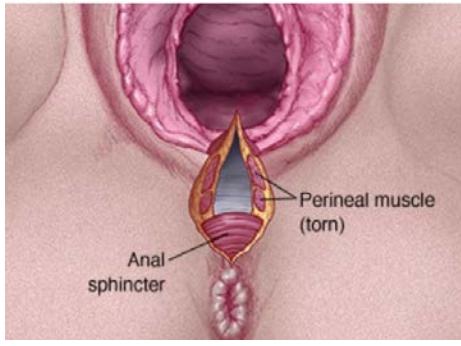
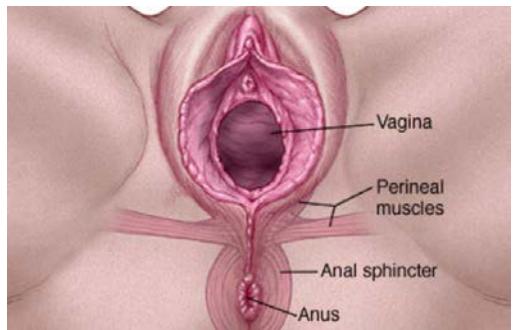
## **PALM-COEIN: จำง่าย แต่ไม่ช่วยสืบค้นตามanatomy**

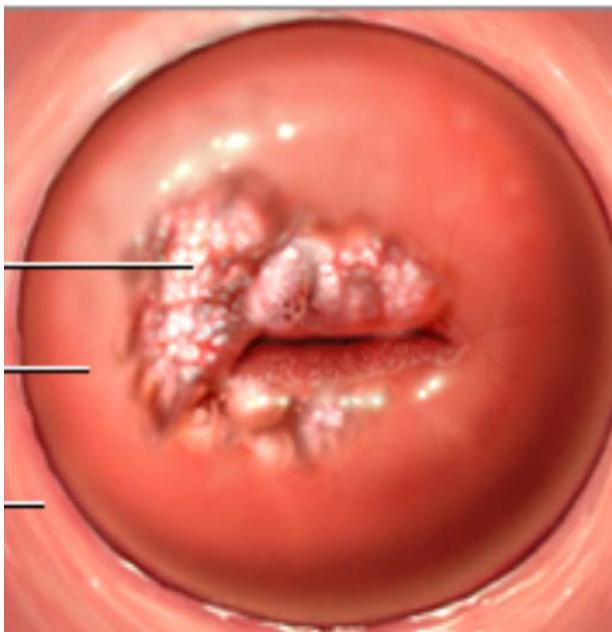
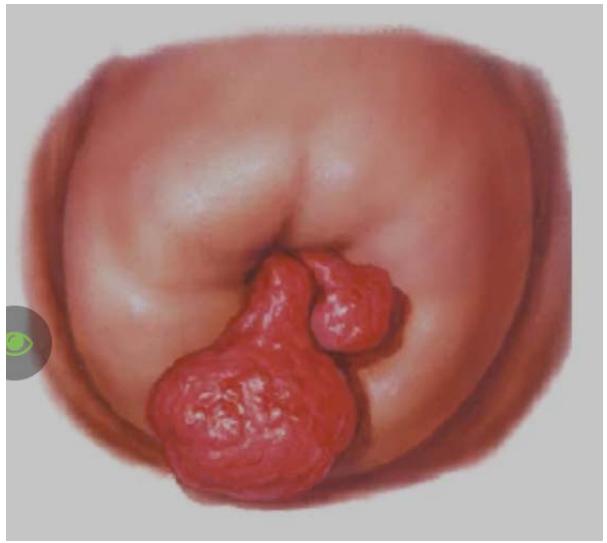
### **PALM (Structural Causes):**

- **P:** Polyps:
- **A:** Leiomyoma
- **M:** Malignancy and hyperplasia:

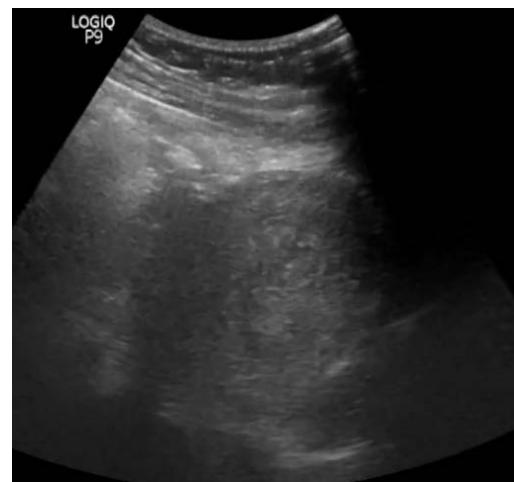
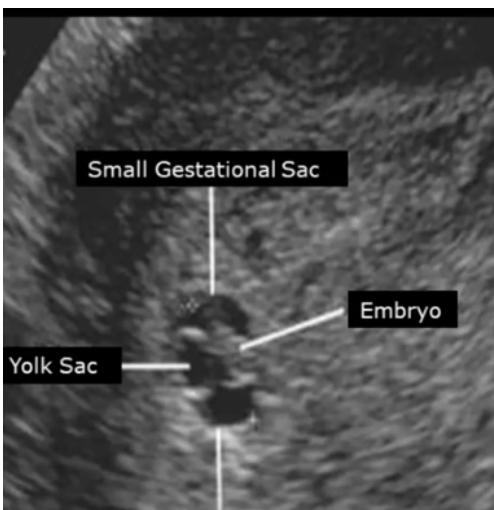
### **• COEIN (Non-Structural Causes):**

- **C:** Coagulopathy:
- **O:** Ovulatory dysfunction:
- **E:** Endometrial: such as inflammation.
- **I:** Iatrogenic: medical procedures or treatments.
- **N:** Not otherwise classified:

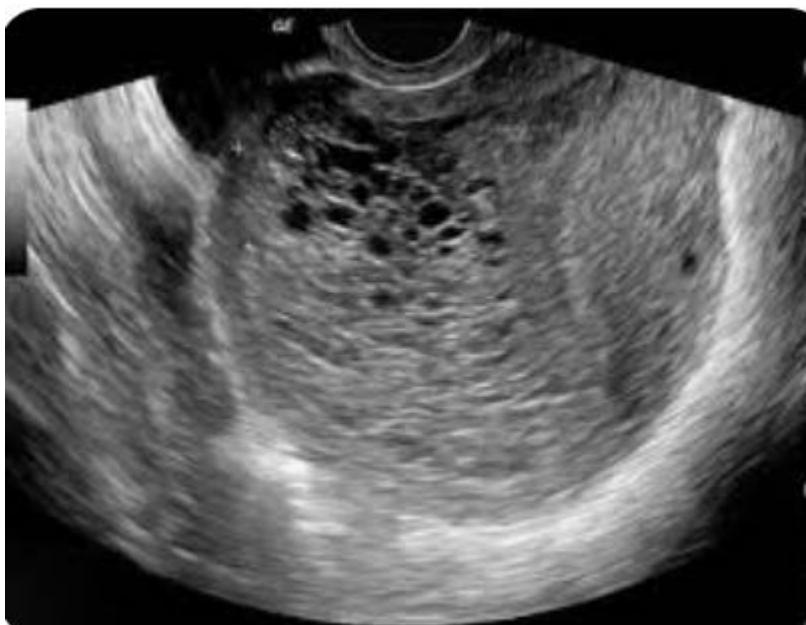


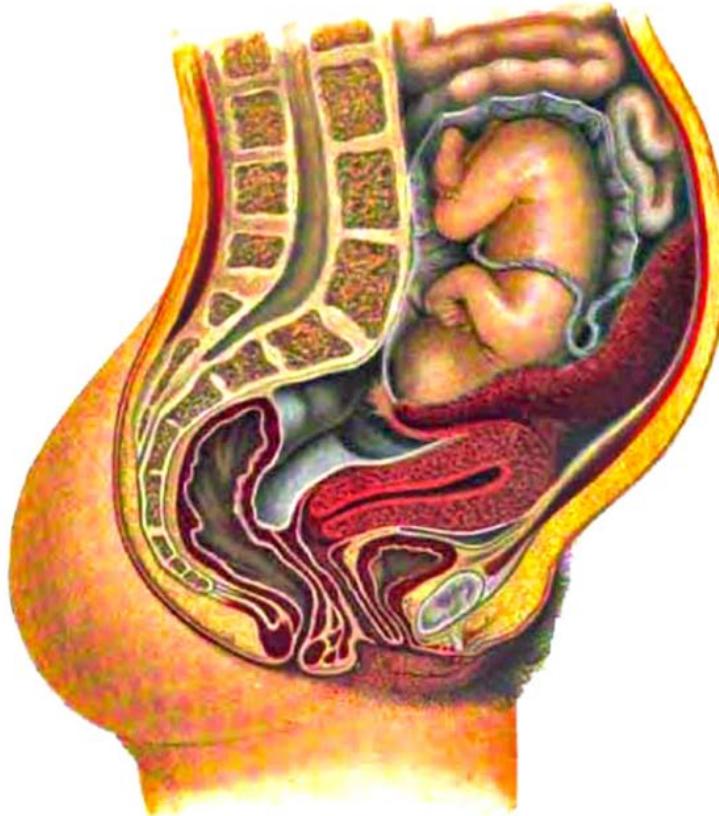
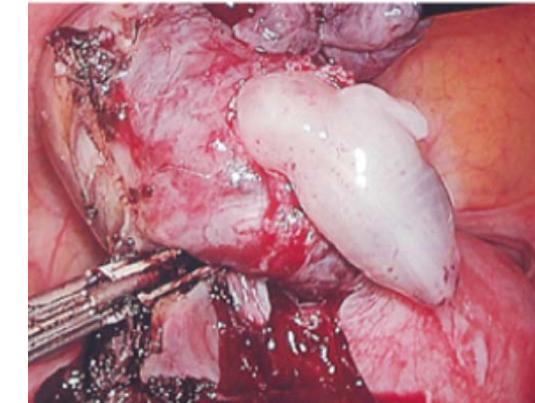


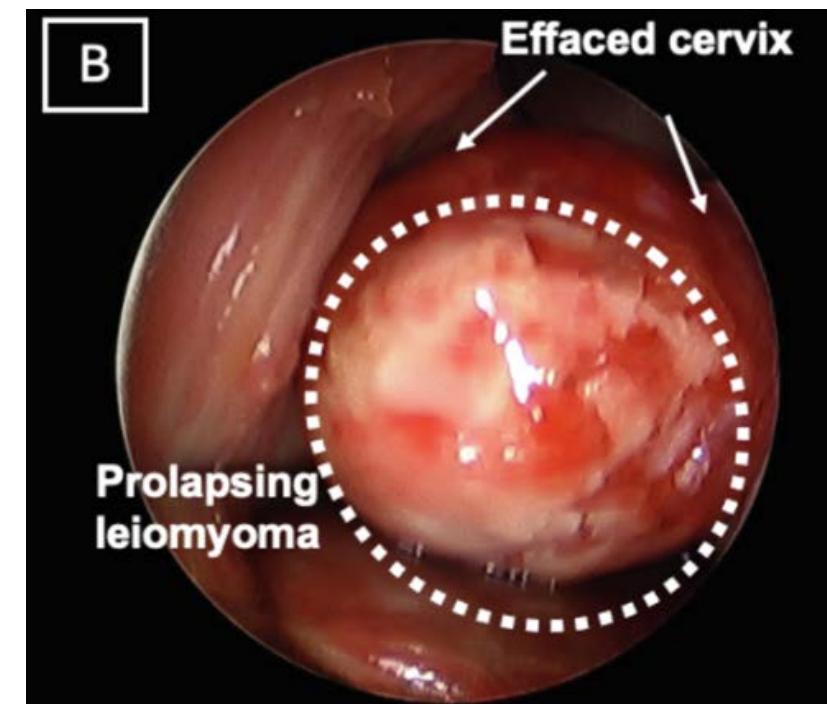
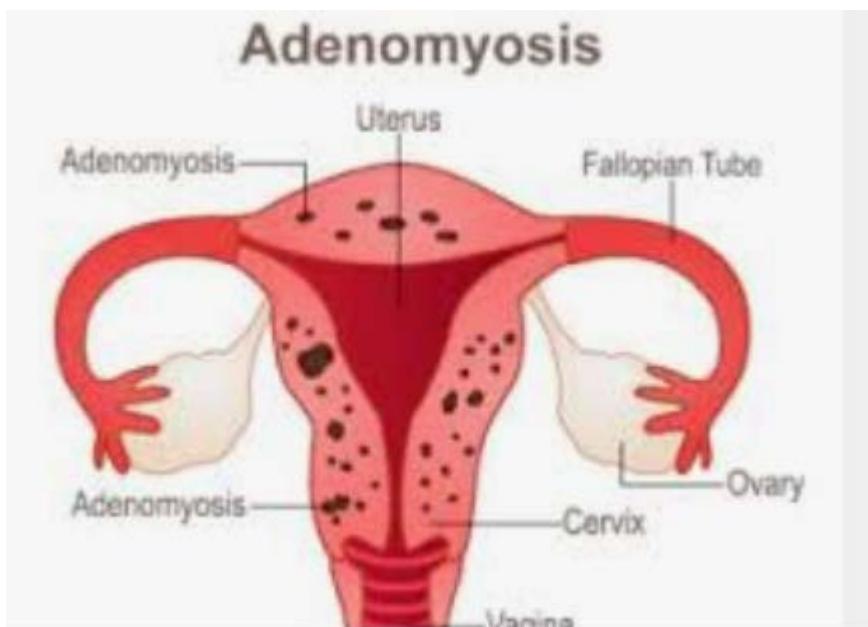
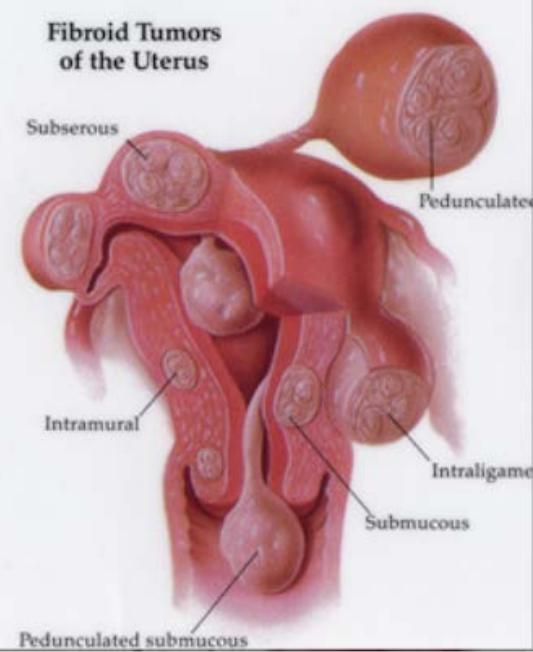
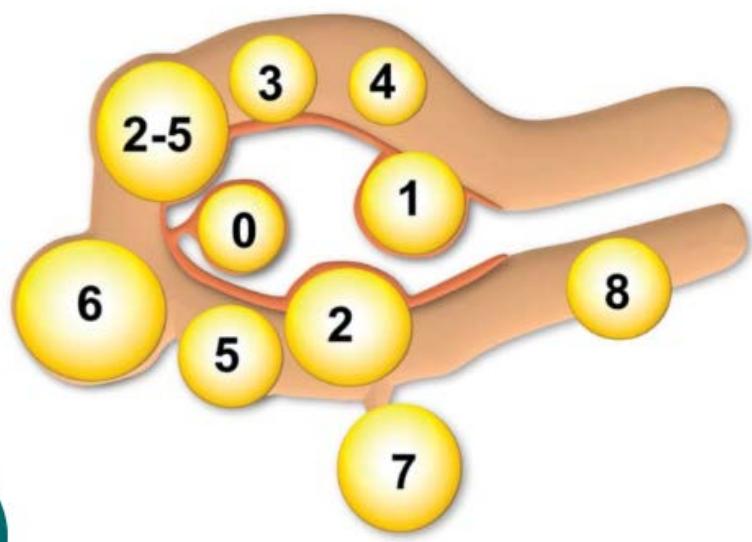
## HCG/USG

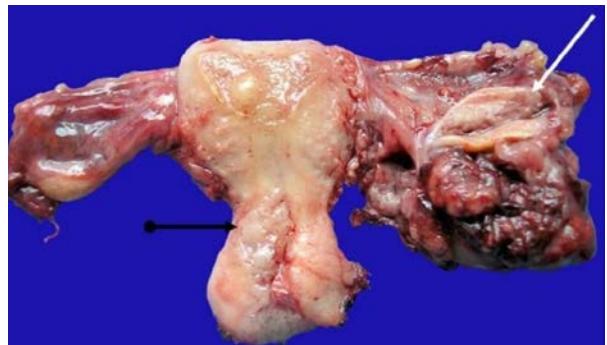
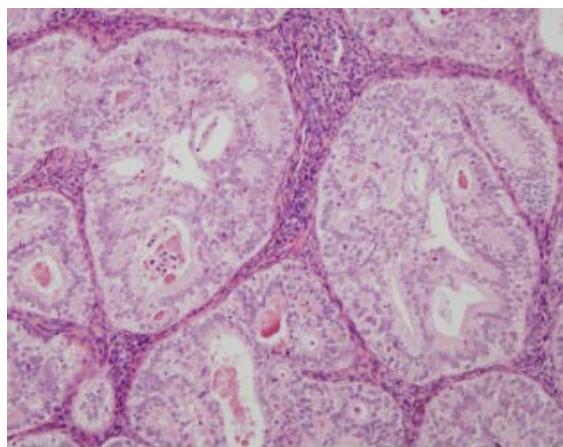
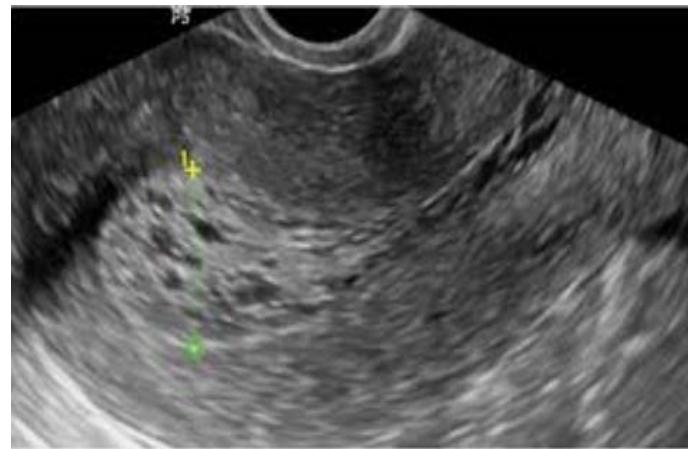
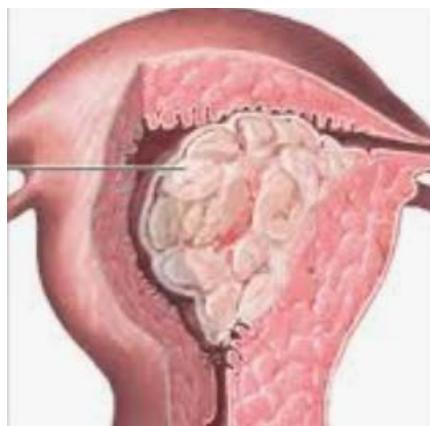
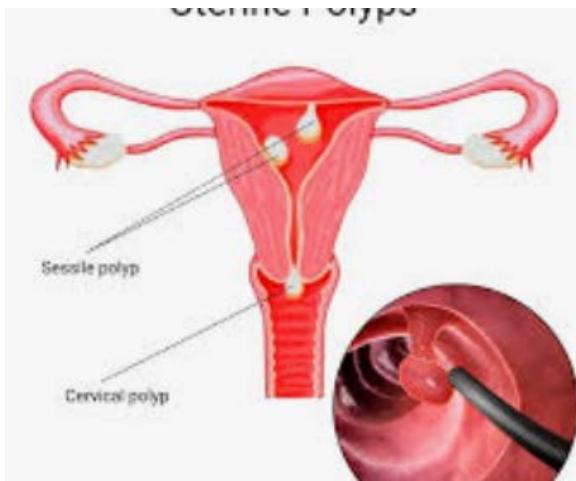


-Ectopic  
-abortion  
-Molar









## Risk-factors-for-endometrial-cancer

Increasing age  
Obesity  
Hypertension  
Diabetes  
Unopposed estrogen replacement therapy  
Extended use of tamoxifen (>5 y)  
Personal or family history of breast or ovarian cancer  
Personal or family history of colon cancer<sup>a</sup>  
Nulliparity  
Infertility  
Late menopause (>55 y)  
PCOS with prolonged anovulation  
Previous pelvic radiation therapy

**A 39 years old women Para 6 has presented with complaint of post coital bleeding for the past three months. Your first investigation should be:**

- a) Dilatation & Curettage.
- b) Cone biopsy of cervix.
- c) Pap smear.
- d) Colposcopy.
- e) Laparoscopy.

16. A 65-year-old present with bilateral progressive enlarge breasts. He has herbal medicine for a year. Which of the following is the component of drug?

- a) Estrogen
- b) Progesterone
- c) Testosterone
- d) Androstenedione
- e) Dihydrotestosterone

11. A 25 year old women use combined oral contraceptive present spotty vaginal bleeding one week prior to her normal menstruation. Which of therapeutic modification to decrease side effect?

- a) increase progestin dose
- b) decrease progestin dose
- c) increase estrogen dose
- d) decrease estrogen dose
- e) decrease both estrogen and progestin

เฉลย C :Spheroff textbook 9<sup>th</sup> ed. 2020

Chap.22 Hormonal contraception → Breakthrough Bleeding

21. 40-yr-woman **heavy and pain** menstruation for 4 months. PE and investigation lead to **uterine fibroid**. **Surgery** schedule has planned. Which drug should be given to treat her symptoms?

- a) Ethynodiol dihydrogesterone
- b) Finasteride
- c) Medroxyprogesterone
- d) Mifepristone
- e) Tamoxifen

**Pisek note:**

Choice น่าจะมี GnRH agonist: เช่น Leuprorelin(Enantone)

RTCOG :Management of Uterine Leiomyoma in Infertility

i.Surgery      2. **Medical Rx**

2.1 GnRH agonist pre-op for myomectomy ช่วยเพิ่ม Hb ลด size(12)(Level II-1 a)  
มีฤทธิ์ 4-8w(13) และใช้ใน ART(14)

-มีรายงานอาจเพิ่ม leiomyoma recurrence แต่ข้อมูลยังไม่ชัดเจน(12)(Level II-1c)  
จึงใช้ ก่อนผ่าตัด

2.2. ยาอื่น: DMPA(16), antiprogestins, selective P receptor modulators(17), Aromatase Inhibitor, danazol **ปัจจุบันยังไม่มีข้อมูลเชิงประจักษ์**

## 5. Pelvic mass

Hx/PE/PV

G: Ca  
O: Ectopic

Lower genital tract

**Vulva**  
T: hematoma  
I: Bartholinitis  
Condyloma  
G: Ca vulva  
fibroma

**Vagina**  
T: hematoma  
G: Ca  
C: Gartner's duct cyst  
O:cysto/rectocoel

**Cx**  
G: polyp/Ca/myoma  
I: condyloma  
O: nabothian cyst  
Cx prolapse

UPT/USG

Preg:

**Myometrium**  
G: Myoma  
sarcoma  
adenomyosis.

**Non-Preg**

**Endometrium:**  
G: Ca /sarcoma

Upper tract

uterus

ovary

USG/tumor marker/  
Histo

Tube

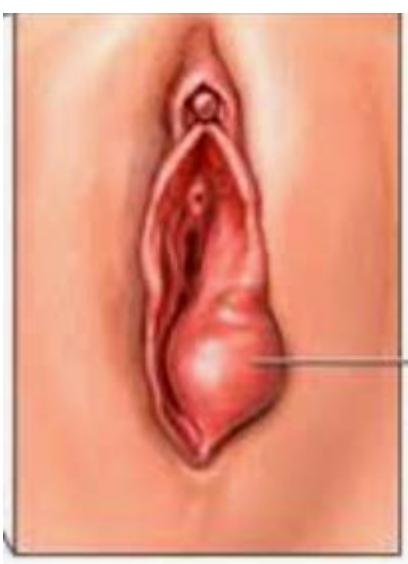
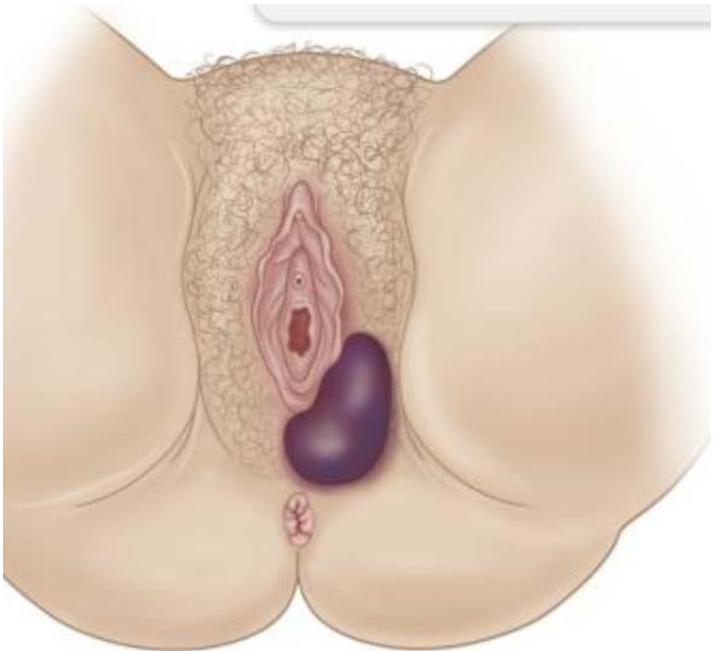
G: Benign /borderline/malignant  
-Common epithelium  
-Germ cell: **Dermoid**  
-Sexcord/stromal cell:  
**estrogen producing**  
**Androgen producing**

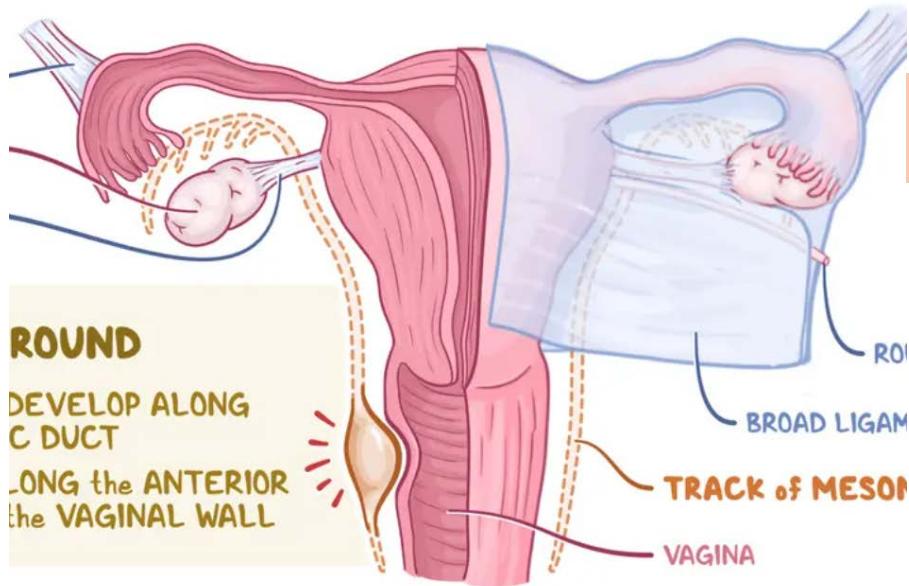
Tumor-like mass

I: TOA

O:

- High HCG: Theca lutein cyst
- Endometriotic cyst
- Pregnancy: luteoma
- Corpus luteum cyst
- Post implant P

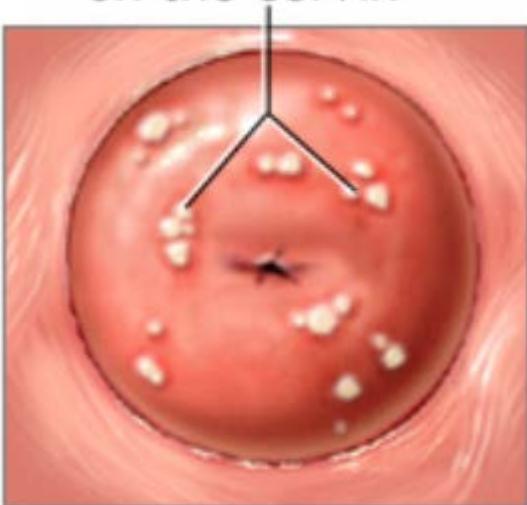


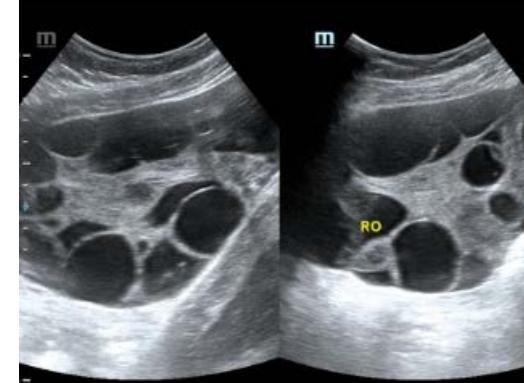


## Gartner's duct cyst

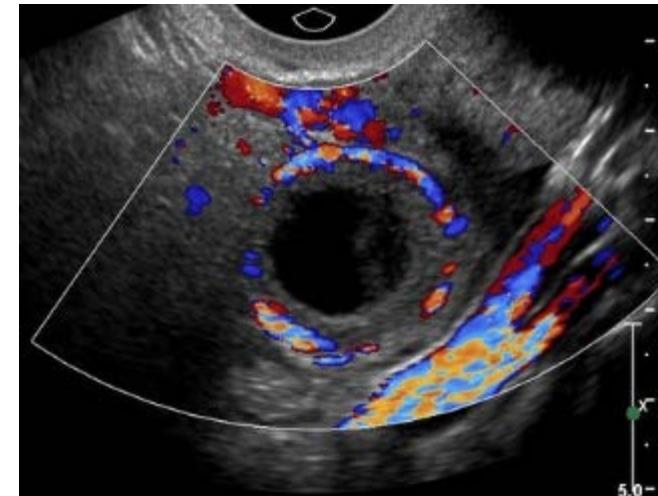
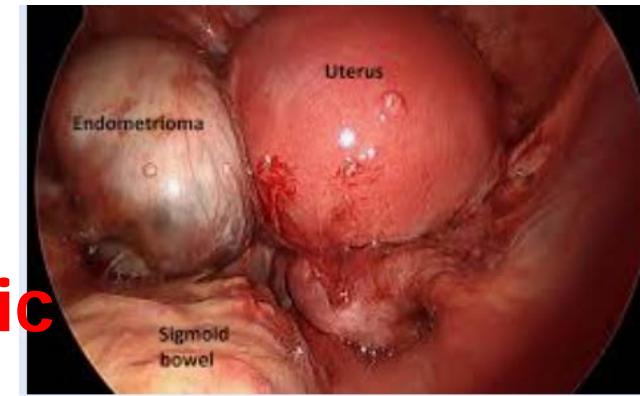
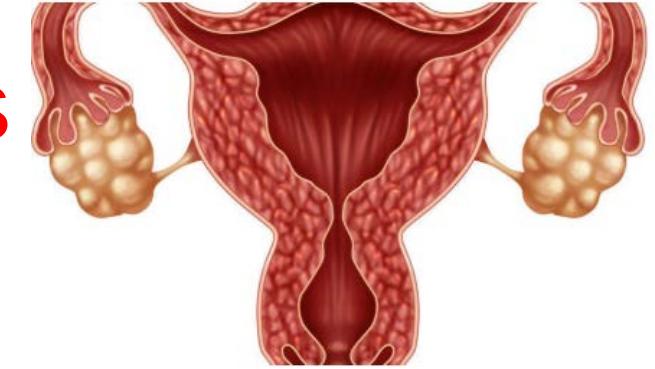


Nabothian cysts  
on the cervix





PCOS



Corpus luteum cyst

**Question :**

An **asymptomatic** **34-year-old** woman at **20 weeks'** gestation is found to have a **10-cm complex mass** in the **right ovary**.

Which one of the following is the **MOST likely diagnosis?**

- a. \*Dermoid cyst (CORRECT ANSWER)
- b. Theca lutein cyst
- c. Serous cystadenoma
- d. Dysgerminoma

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**A young girl, 23 years old is presented with complaint of abdominal pain, menorrhagia and 18 weeks size mass arising from hypogastrium. The most likely diagnosis is:**

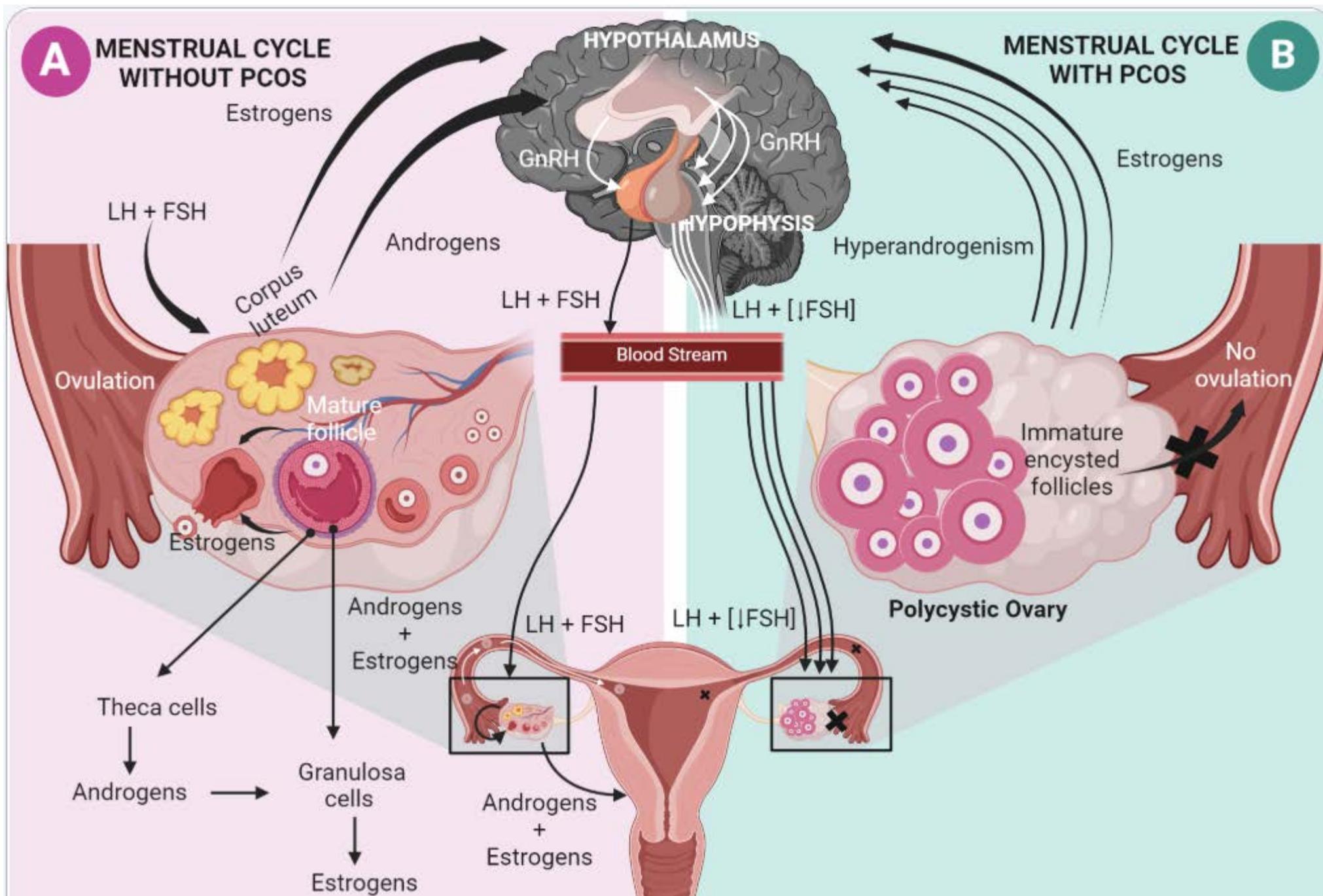
- a) Endometriosis.
- b) Pelvic inflammatory disease.
- c) Ovarian cyst.
- d) Fibroid uterus.
- e) Mesenteric cyst.

**A 43 year old, lecturer has come to you with complaints of heavy but regular menstrual bleeding with flooding and clots. There is no anatomical reason for heavy flow. The most effective remedy for reducing her menstrual flow is:**

- a) Tranexemic acid.
- b) Dilatation and Curettage.
- c) Depomedroxy progesterone acetate.
- d) Misoprostol.
- e) Ergometrine maleate.

## 6.Amenorrhea

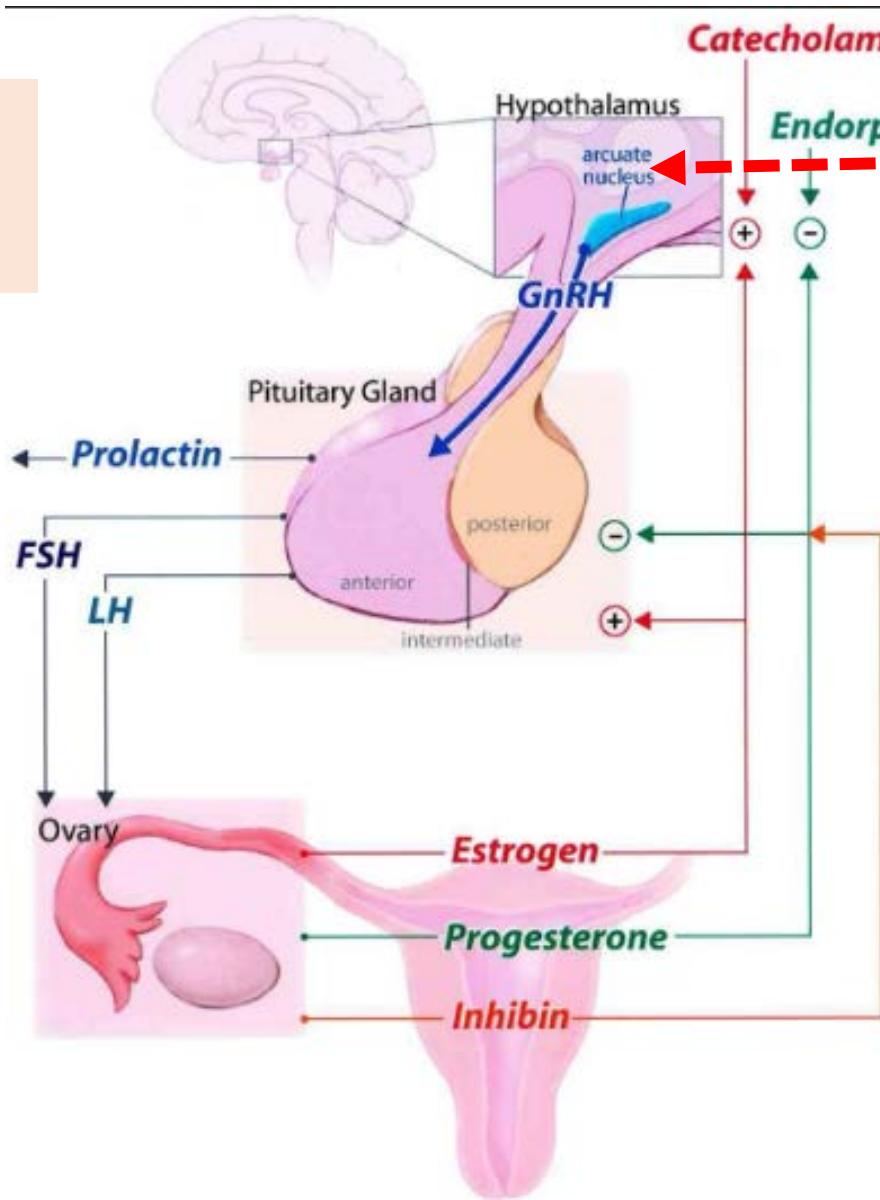
เข้าใจยากมาก ระดับ แพทย์ประจำบ้าน  
แต่ ข้อสอบNL จะออก ไม่ยาก



# Puberty: Genetic influence & environmental factors

Hearing, Visual, smelling, taste, Tactile, emotion

1. Inhibitory nt  
:GABA, opioid,  
melatonin

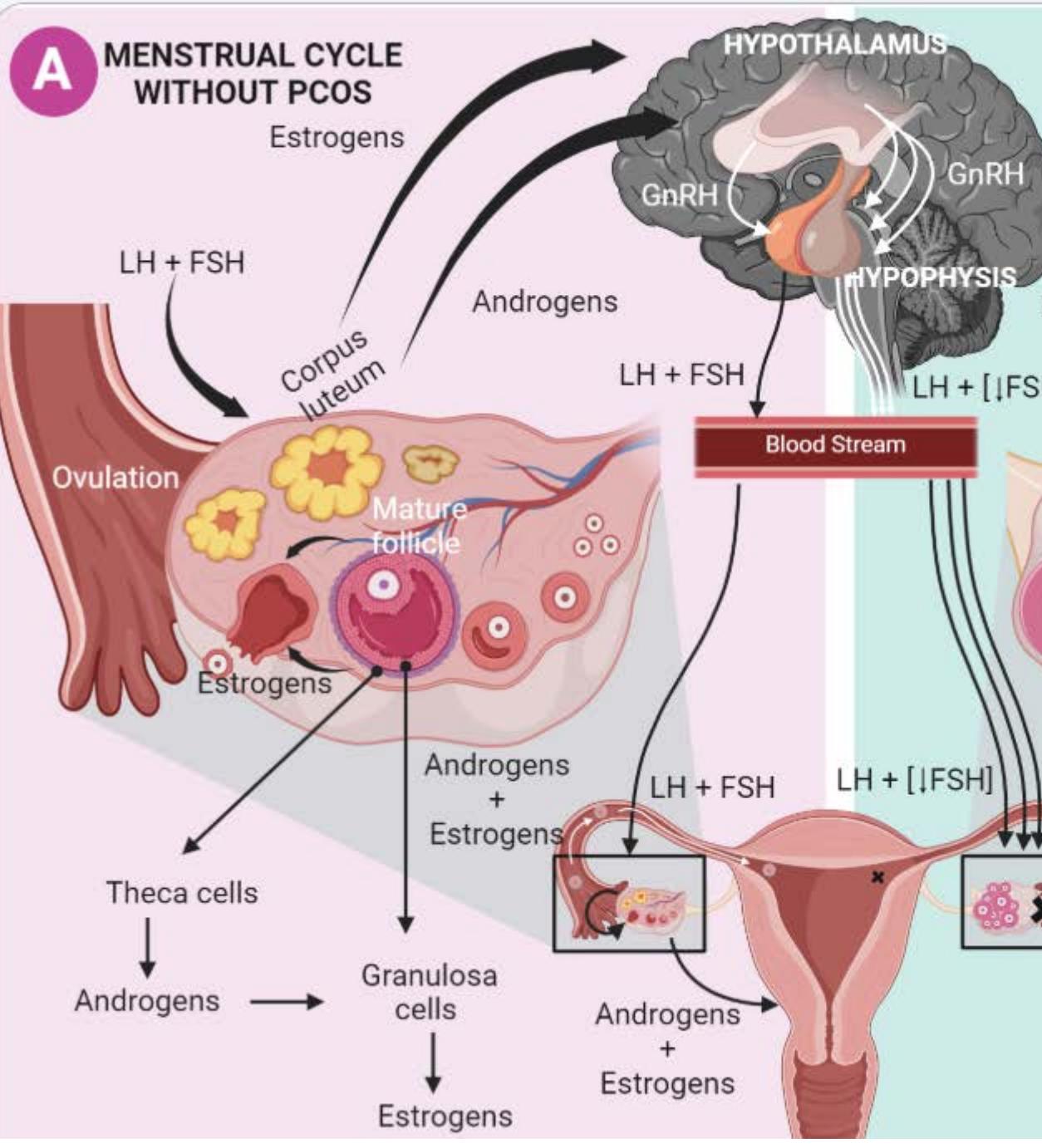


switches on

2. Excite: NE, dop, Glutamate, neuropeptide Y

H: Leptin  
Neurokinin B  
& kisspeptin in KNDy neurons:

- Pubertal change
- Growth accelerate
  - Thelarche
  - Adrenarche
  - Growth spurt
  - Menarche

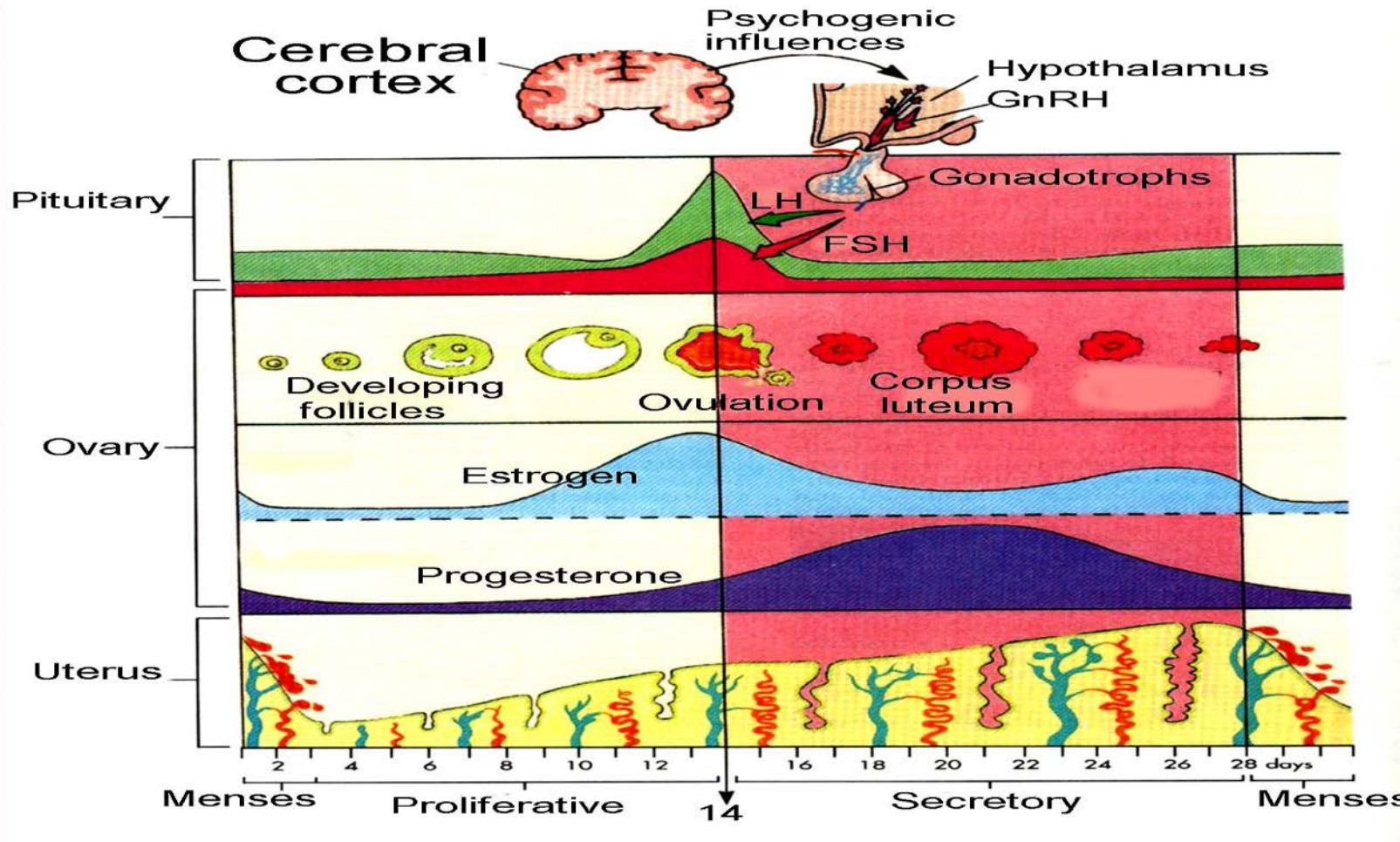
**A**

## Normal ovarian cycle

- Cx mucus change  
**ไข่คุณกำเนิด Cx mucus**  
**ตรวจ LH peak**
- Ovulatory pain: Mid cycle pain
- Basal body T. เพิ่มจาก P
- Premenstrual syndrome

**หงุดหงิด ขาดสามารถ ตึงหน้าอก  
ท้องอืด กินของเปลก**

- Corpus luteal cyst
- Menstruation/  
dysmenorrhea



ระดูปกติบ่งถึงความปกติ  
ของการทำงานเชื่อมโยง  
ของ

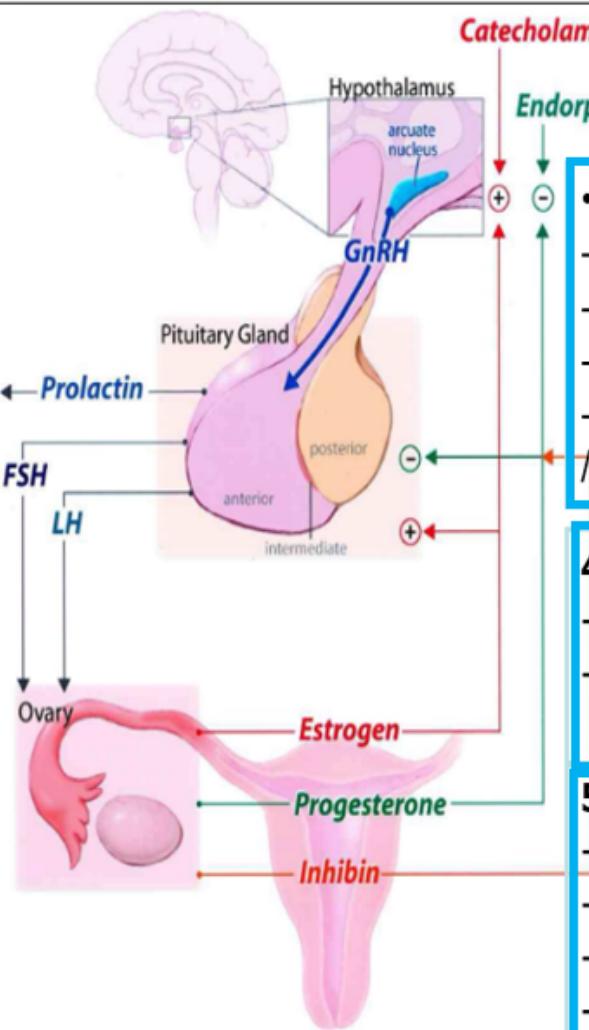
1. Hypothalamus
2. Pituitary
3. Ovary
4. Uterus
5. Metabolic / endocrine
6. Outflow tract

**A 25 years old school teacher Para 1 wants to use oral contraceptive pills for contraception. She is asking about the mode of action of oral contraceptive pills. The mechanism of action of oral contraceptive pills is:**

- a) Inhibiting ovulation by suppression of serum FSH.
- b) Inducing endometrial atrophy.
- c) Increasing cervical mucous hostility.
- d) Inducing endometritis.
- e) Inhibiting prolactin.

## Anatomy & Physiology Men:

- 1CNS- hypothalamus
- 2 anterior pituitary
- 3.ovary
- 4Uterus



## Pathology:

**1CNS- hypothalamus:**  
nutrition, Stress, exercise, hormone , tumor

## •Hx ที่ต้องซัก

ปวดหัว อาเจียน เดินเซ อ่อนแรง รับกลืนลดลง นน.ลด Stress exercise drugs

- Anosmia : **kallmann syndrome**

- Stress, exercise, anorexia nervosa
- Drugs: contraceptive, Antipsychotic...

## 2pituitary: tumor

(most lactotroph:PRL)  
Sheehan's syn

## •Hx ที่ต้องซัก

ดาวม้า น้ำนมไหล กระดุนหัวนม อาการhypothyroid

- Sheehan's synd:** ตกเลือดหลังคลอด ไม่มีนมให้ลูกกิน

- ปวดหัว ดาวม้า น้ำนมไหล: **prolactinoma**
- Lactation amenorrhea:** ให้นมบุตร

## •3 ovary:

- BSO/Radiation/chemo
- POF
- menopause
- H-producing; thecoma
- /Sertoli –Leydig ...

## •Hx ที่ต้องซัก

โรคประจำ ผ่าตัดร้อนวูบวาบ .คลำก้อนในท้อง hirsutism acne virilization

## •Natural menopause

- Surgical/radiation/Chemotherapy(ชั่วคราว)
  - **PCOS**
  - **anovulation**
  - **Premature ovarian failure(POF)**

## 4 Uterus

- Preg
- non preg
- synerchia, TAH

## •Hx ที่ต้องซัก

-preg คลื่นไส อาเจียน คัดเต้านม -ตั้งครรภ์ บุบมดลูก

## •Pregnancy : UPT

- Uterine synechiae(Asherman syn):** หลังคลอด รกรค้างต้องขุดคลูก มีนมให้ลูกกิน แต่ ไม่มีระดูแม้จะเลิกให้นมบุตรแล้ว

## 5 metabolic/endocrine

- Hyperthyroid
- Hypothyroid
- DM
- Hyperandrogen:PCOS, tumor, สร้าง androgen

## •Hx ที่ต้องซัก

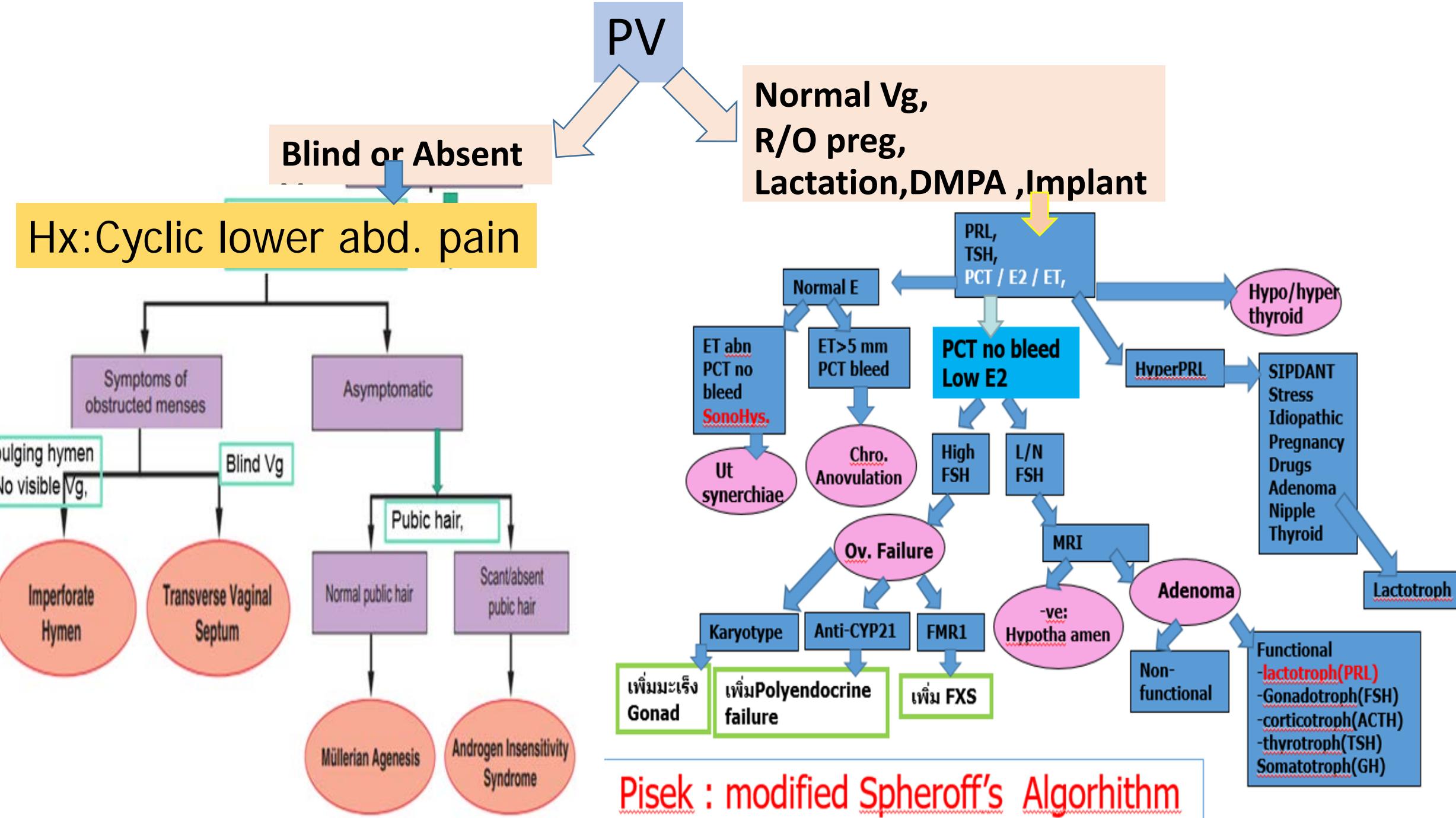
อาการhyper/hypo ไข้ เสียงหัว ระดู

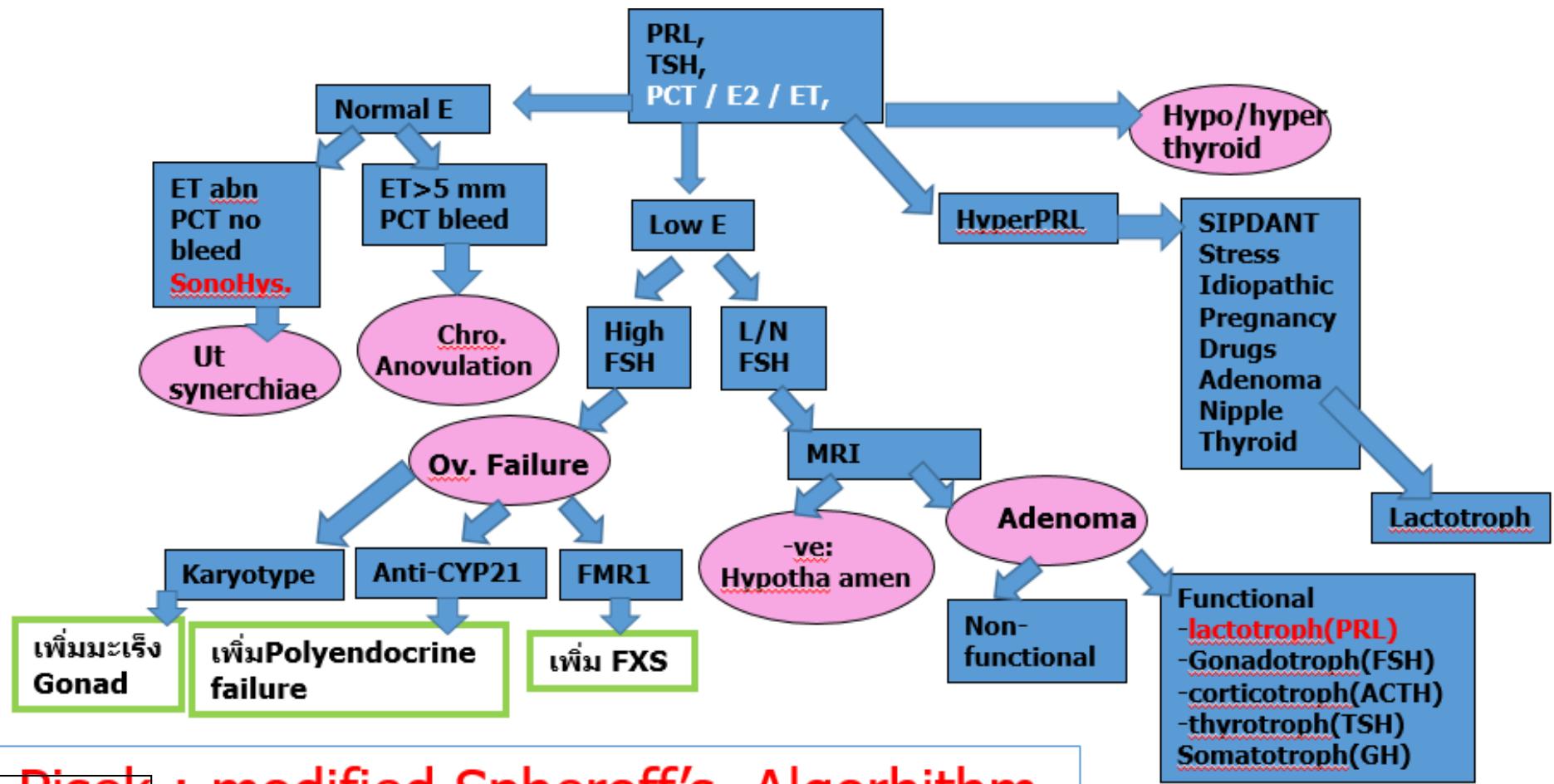
## •Hyper/hyperthyroid

- DM
- Some Chronic diseases

## 6 Vg:

•**Imperforate hymen:** 1amenorrhea ,cyclic lower abd pain, pelvic mass





## Pisek : modified Spheroff's Algorhithm

AutoImmune(AI) adrenocortical insuff:

- strongest association with POF;
- **Ab to steroid-producing cells** & L infiltrate in the ovaries (AI oophoritis).
- **POF** อาจนำ adrenal insufficiency หลายปี,
- POF ควรตรวจ anti-adrenal Ab (most 21-OHlase, CYP21), & anti-thyroid Ab (anti-thyroid peroxidase and anti-thyroglobulin Ab).
- **ถ้าพบ anti-adrenal Ab strongly implies AI.**  
POF ต้องผ่ารังสีadrenal insuff.
- **แต่ thyroid autoAb ไม่ได้ prove AI POF**  
เพียงช่อง risk for thyroid disorders.

FMR1(Fragile X Mental Retard.)(Xq27.3)

- most common inherited MR& autism
- Abn. repeat CGG in FMR1 gene
- ปกติมี 30 CGG repeats,
- **Fragile X premutations** FMRP 55–200: → POF
- **Fragile X syndrome(FXS)> 200.**

\*Permutation: 55–200 repeats มี 2 disorders ต่างจาก FXS.

1. fragile X-associated tremor/ataxia synd (FXTAS), neurologic disorder ช>ญ.
2. POF, พบร 15% ในหญิงที่มี premutation

## ເປົ້າຍນເທື່ອນໂຈທຍ NL2

NL2 A 14-year-old girl. She has had progressive cyclic pelvic pain for 6 months. Her growth and development are normal. She has never had menstruation. PE — normal secondary sexual development, uterus 12 weeks size, mild tenderness. What is the most appropriate investigation ?

- A. Vaginal examination
- B. Pelvic ultrasonography
- C. Serum FSH, prolactin
- D. Progesterone challenge test
- E. Chromosome study

Ans. PV : imperforated hymen

13. A 30 years old woman presents with secondary amenorrhea for 3 months. Liver function test and prolactin level are normal. Urine pregnancy test is negative. Thyroid function test and prolactin levels are normal. Progesterone withdrawal test shows no bleeding. Which of the following is the most likely pathophysiology?

- a) high level of GnRH
- b) High level of estrogen
- c) ovarian dysfunction
- d) low level of estrogen
- e) low level of progesterone
- f) high level of LH

ข้อนี้ choice เกิน 5 แสดงว่าจำ麥ลาดเคลื่อน  
จริงๆ จะมี 5 choice  
ข้อนี้เป็นข้อสอบ NL2 บางปี  
ให้ Progesterone และ no bleed อาจเป็น low  
- low E (เสียที่ Ovary or Pitui. Or Hypothalamus)  
step ต่อไปต้อง ตรวจ FSH ถ้าสูงเสียที่ ovary  
ANS D  
แต่ถ้าให้ Progesterone และ bleed =  
**anovulatory problem** (ovarian dysfunction : ยัง  
ทำงานได้ แต่ไม่สมบูรณ์พอที่จะทำให้ไข่ตกได้)

**A young medical student has come to you with complaints of oligomenorrhea, hirsuitism and weight gain, ultrasound reveals bulky ovaries with sub-capsular cysts. Most likely diagnosis is:**

- a) Ovarian cancer.
- b) Cushing's syndrome.
- c) Polycystic ovarian disease.
- d) Diabetes mellitus.
- e) Pelvic inflammatory disease.