

Updates in Abnormal Uterine Bleeding



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OBJECTIVES

- Define abnormal uterine bleeding (AUB), using current terminology
- Classify causes of AUB based on PALM-COEIN classification
- Describe the key initial evaluation steps for AUB
- Identify three clinical management approaches to AUB

Case 1

The medical assistant tells you a 34 year old woman is on the phone calling because she is having a heavier period than normal. The MA wants to know whether you want to see her.



Screening

- How much is she bleeding?
- How long does it take to saturate a pad or tampon?
- Any dizziness?

Office visit

- The patient comes into the office.
- She does not remember the date of her last period but thinks the current period may be a bit late. It began normally that morning and now in the afternoon she is saturating over one pad/hour and has been doing so for 6 hours.

Next steps

- Physical exam—what do you look for?
- Labs—what do you order?

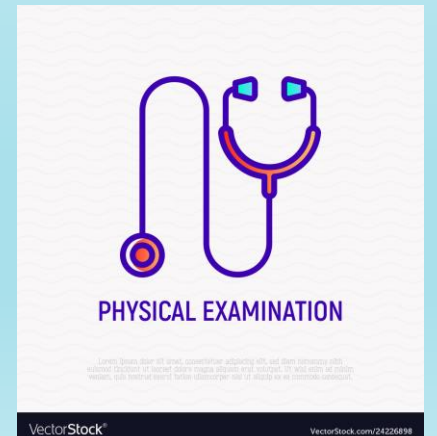
Discussion: History

- Regular/irregular cycles (if a woman says “irregular,” find out what she means)
- Note range of cycles, e.g. every 3-6 months
- Quantitate heaviness: how often do you need to change a pad or tampon? A pad an hour represents EXCESSIVE bleeding
- Duration of bleeding
- Does bleeding interfere in everyday activities?
- Galactorrhea?
- Family history
- Medications

HERSTORY

Physical Exam

- Obesity, hirsutism, acne
- Signs of insulin resistance (acanthosis nigricans)
- Ecchymoses or petechiae
- Thyroid enlargement
- Milky discharge expressible from breasts



Pelvic Exam

- External genitalia/vagina—signs of trauma
- Cervix
 - Friability
 - Solid lesions (prolapsed fibroid, cervical cancer)
- Uterus
 - Uterine enlargement (pregnancy, fibroids)
- Adnexa
 - Mass/tenderness (ectopic)



Case 1: Exam and Results

Normal Exam

Results

Hgb 10/Hct 30

Pregnancy test negative

Diagnosis?

AUB: Definition

- “Menstrual flow outside of normal volume, duration, regularity, or frequency is considered abnormal uterine bleeding (AUB)”- ACOG Practice Bulletin 128 (2012)
- 1/3 of outpatient visits to the gynecologist are for AUB, and it accounts for more than 70% of all gynecologic consults in the perimenopausal and postmenopausal years

Definition

- Normal menstrual flow is up to 7 days
- Normal menstrual cycle is between 21 days and 35 days **from Day 1 to Day 1**

Terminology

- **Heavy menstrual bleeding** (menorrhagia): menstrual blood loss greater than 80 mL (based on patient's perception)
- **Intermenstrual bleeding** (metrorrhagia): Bleeding between periods
- **Polymenorrhea**: Bleeding that occurs more often than every 21 days
- **Oligomenorrhea**: Bleeding that occurs less frequently than every 35 days

Case 1

Diagnosis & Treatment

- Heavy menstrual bleeding
- Treatment :
 - OCP taper w/ monophasic pills followed by cyclic OCPs (if no contraindications such as hypertension, smoking, migraine with aura, lupus)
 - Medroxyprogesterone acetate (Provera) 10 mg pills daily

Treatment of
acute
bleeding with
OCPs

OCPs using cascade method

- Monophasic pill
- Give at least 2 packages (2 months supply)

Treatment of acute bleeding with OCPs

1

- TID for 3 days (9 pills)

2

- BID for 3 days (6 pills)

3

- Then Daily (6 pills)

Treatment of acute bleeding with OCPs

4

- DISCARD week of placebo pills and immediately begin next package: 1QD

5

- Consider continuing pills in usual monthly fashion, or offer Seasonale-equivalent (one period

Mechanism of Action

- Estrogens:
 - Cause rapid growth of the endometrium
 - Heal denuded/raw epithelium
 - Stimulate capillary clotting
 - Initially -
 - *High dosage of estrogen*
 - Once bleeding improved then D/C -
 - *Taper estrogen & add P₄*

Case 2

- A 49 year old G2P2 presents with a year of excessively heavy periods. She is on anti-hypertensives with well-controlled blood pressures. She sometimes saturates through her clothes at her work in a retail store, which clearly interferes in her normal functioning.



- What other information do you want to know?
- What do you look for on exam?
- What labs do you order?
- What treatment do you offer her?

Results

Results

- Hgb 11.0/Hct 33
- US shows three fibroids, measuring 3, 4, and 5 cm

Terminology/ Classification

- 2011: International Federation of Gynecology and Obstetrics (FIGO) introduced a new classification system, now also supported by ACOG
- Abnormal uterine bleeding (AUB), replaces term dysfunctional uterine bleeding
- With the additional classification of PALM–COEIN
- Based on pattern and causes

PALM- COEIN

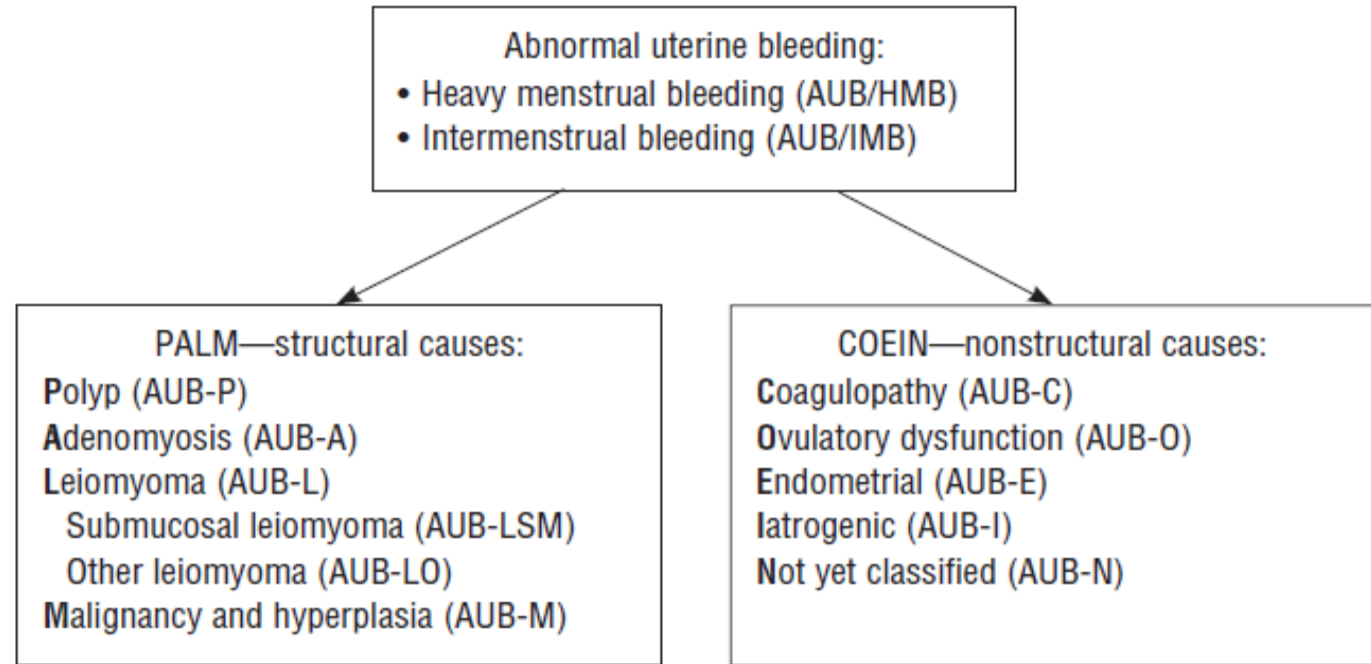
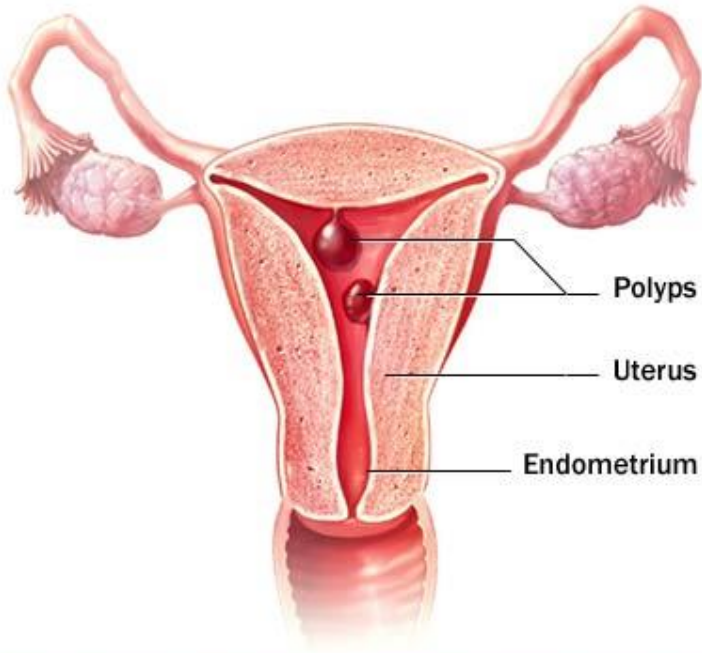


Fig. 1. Basic PALM–COEIN classification system for the causes of abnormal uterine bleeding in nonpregnant reproductive-aged women. This system, approved by the International Federation of Gynecology and Obstetrics, uses the term “abnormal uterine bleeding” paired with terms that describe associated bleeding patterns (“heavy menstrual bleeding” or “intermenstrual bleeding”), a qualifying letter (or letters) to indicate its etiology (or etiologies), or both. Abbreviation: AUB indicates abnormal uterine bleeding. (Data from Munro MG, Critchley HO, Broder MS, Fraser IS. FIGO classification system [PALM-COEIN] for causes of abnormal uterine bleeding in nongravid women of reproductive age. FIGO Working Group on Menstrual Disorders. *Int J Gynaecol Obstet* 2011;113:3–13. [PubMed] [Full Text]) ←

PALM-COEIN

P:	Polyp
A:	Adenomyosis
L:	Leiomyoma
M:	Malignancy/hyperplasia
C:	Coagulopathy
O:	Ovulatory dysfunction
E:	Endometrial
I:	Iatrogenic
N:	Not yet classified

Polyps



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Usually focal benign hyperplastic process within endometrium

- May be found with other types of hyperplasia & CA
- Less than 5% with malignant changes**

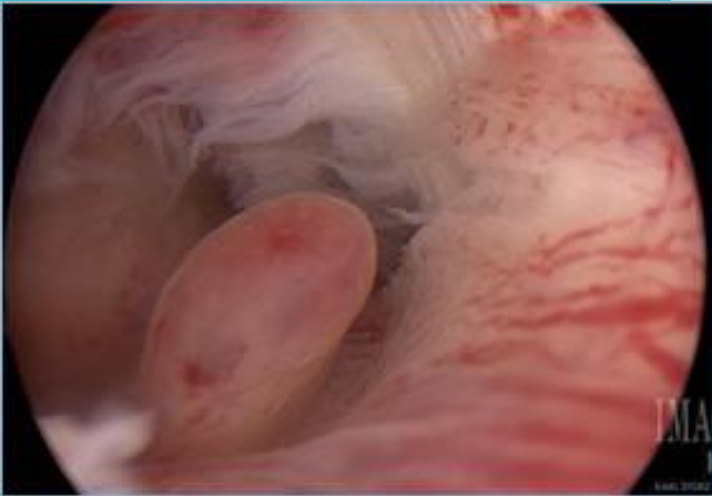
Age range:

- Any post-pubertal patient
- Most common in perimenopausal/newly postmenopausal

Other factors:

- Obesity
- Genetic predisposition (?)

Polyps



Exam/Imaging

Often WNL/
inconclusive

Sonohysterogram

Diagnostic
Procedures

EMB

H-Scope/D&C

Treatment

Polypectomy

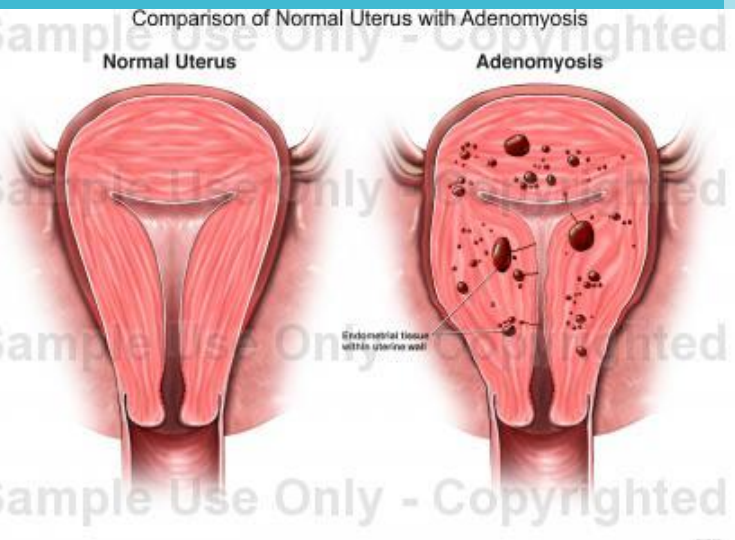
Adenomyosis

Definition:

- Islands of endometrium growing into myometrium

Symptoms

- Dysmenorrhea
- Intermenstrual/ Heavy/ Frequent Menstrual bleeding



Adenomyosis



Pelvic exam:

- “Boggy”, tender uterus
- +/- symmetrically enlarged uterus

Pelvic US:

- +/- symmetrically enlarged uterus

Diagnosis:

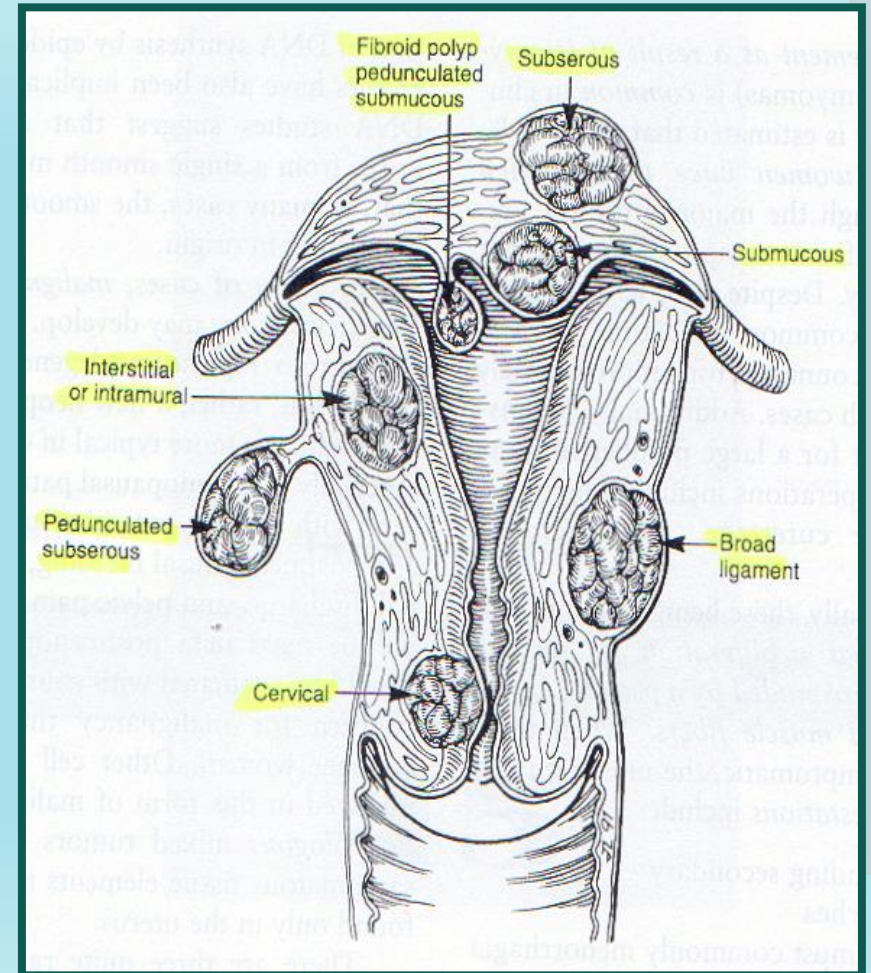
- Clinical dx of exclusion
- Definitive by histology (after hysterectomy)

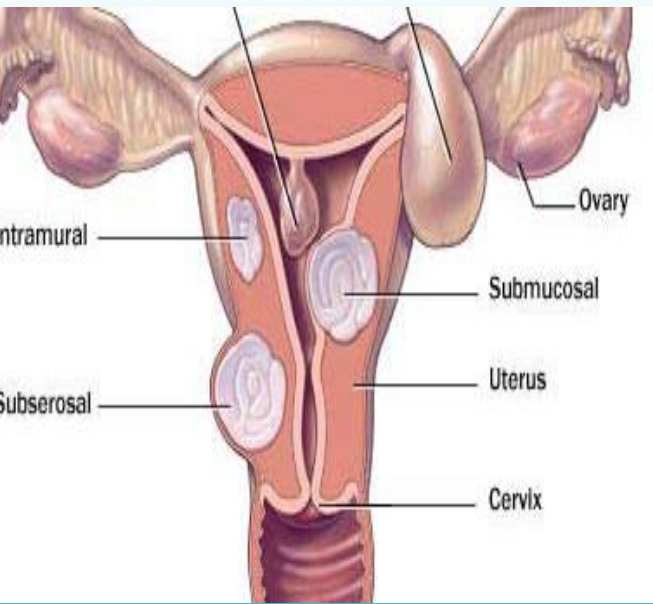
Treatment

- OCPs
- Depo Lupron
- Hysterectomy

Leiomyoma

Benign overgrowth of myometrium





Leiomyoma

Symptoms

Irregular Bleeding

Pain

Dysmenorrhea

Bulk symptoms

Heavy menses

Passage of clots

Pelvic heaviness or fullness

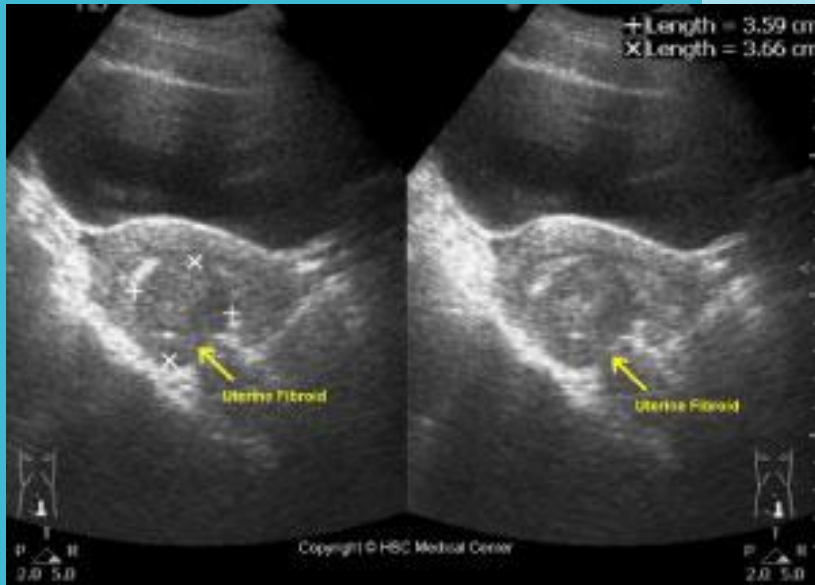
Urinary or bowel symptoms

Case 2 Discussion

Treatment options

- Progesterone- PO, Depo Provera
- LNG- IUD
- Depo-Lupron (leuprolide): causes a temporary menopause and can be used for up to 9 months
- Uterine artery embolization
- Hysterectomy

Leiomyoma



Evaluation:

Pelvic Exam/Sono

- Irregularly enlarged uterus

Treatment:

GnRH Agonist (up to 9 months)

Myomectomy

Uterine Artery Embolization

Hysterectomy

Coagulopathy

Inherited

Von Willebrand's
Disease

Acquired

Herbal remedies
(ginseng, ginkgo,
motherwort)

Anticoagulants
(Coumadin,
Heparin, Aspirin)

Coagulopathy

Box 1. Clinical Screening for an Underlying Disorder of Hemostasis in the Patient With Excessive Menstrual Bleeding

Initial screening for an underlying disorder of hemostasis in patients with excessive menstrual bleeding should be structured by medical history (positive screen comprises any of the following): *

Heavy menstrual bleeding since menarche

One of the following:

Postpartum hemorrhage

Surgery-related bleeding

Bleeding associated with dental work

Two or more of the following symptoms:

Bruising one to two times per month

Epistaxis one to two times per month

Frequent gum bleeding

Family history of bleeding symptoms

*Patients with a positive screen should be considered for further evaluation, including consultation with a hematologist and testing of von Willebrand factor and ristocetin cofactor.

Reprinted from Kouides PA, Conard J, Peyvandi F, Lukes A, Kadir R. Hemostasis and menstruation: appropriate investigation for underlying disorders of hemostasis in women with excessive menstrual bleeding. *Fertil Steril* 2005;84(5):1345–51.

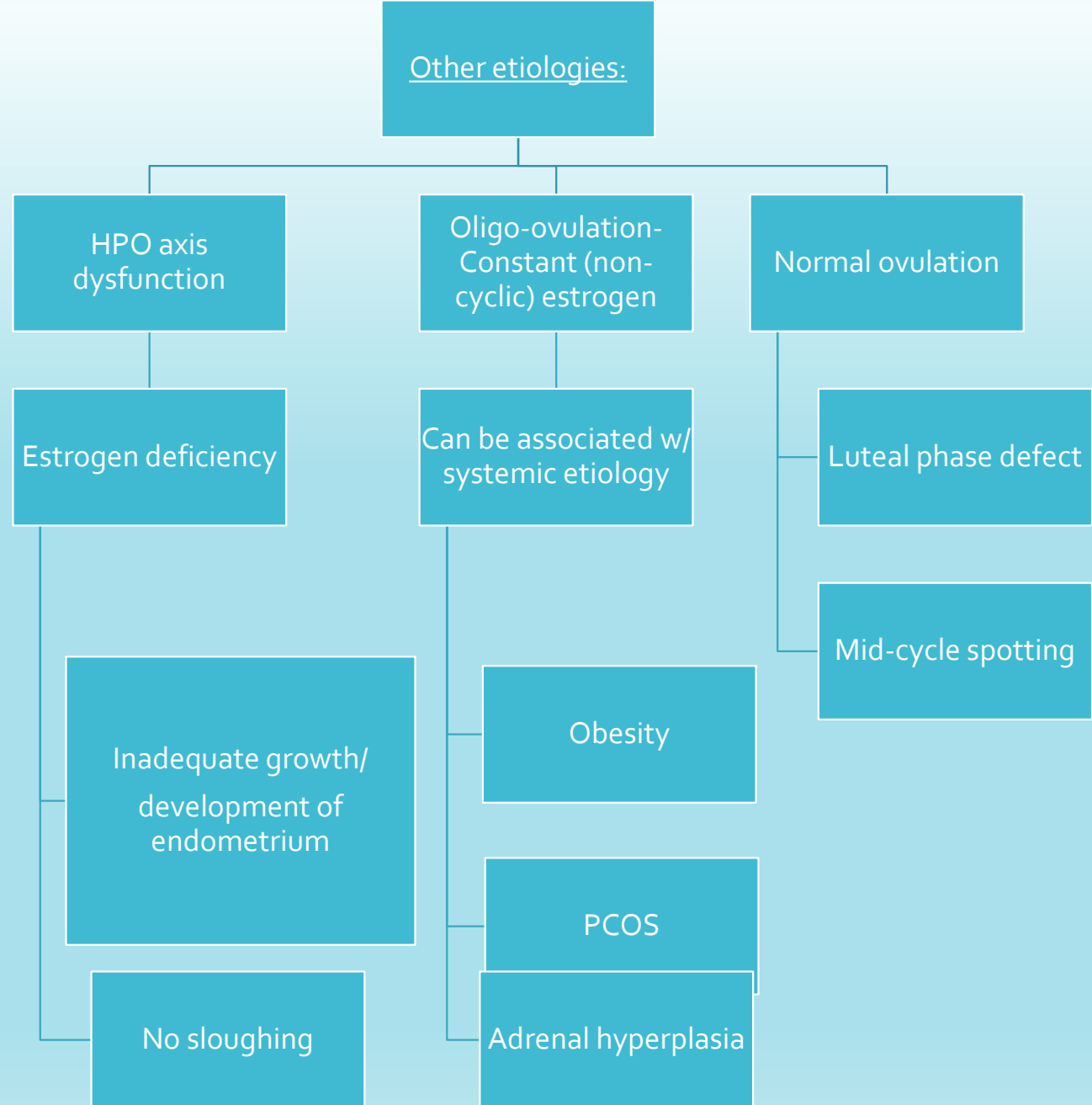
Ovulatory Dysfunction

Endometrial

- Estrogen Predominance
 - Estrone produced by adipose tissue
 - Lack of corpus luteum formation (low progesterone)
 - Unopposed estradiol stimulates endometrium
 - Continuous proliferation
 - Amenorrhea (no switch to luteal phase)
 - Outgrows blood supply, necrosis, sloughing irregularly
 - Menometrorrhagia

Ovulatory Dysfunction

Endometrial



Ovulatory Dysfunction

Causes

- Endocrine Disorders
- Hyper/Hypothyroidism
- Hyperprolactinemia
- Diabetes Mellitus
- Polycystic Ovarian Syndrome (PCOS)

Iatrogenic NOS

Causes:

- OCPs
- HRT
- IUD
- Other Meds (i.e. Psychotropic)

Case 3

- 45 year old G0 presents with a 3 month history of spotting at unpredictable times between periods
- Occasional postcoital spotting
- Last Pap smear was 6 years before



- What tests do you order?

Results

Results

- Pap is normal/HPV negative
- GC-Chlamydia negative
- US shows a 1 cm endometrial polyp
- Endometrial biopsy shows a fragment of a polyp

Treatment options

- Hysteroscopy/removal of polyp

Case 4

- 56 y.o. woman presents with a history of menopause at age 51, now with 3 months of spotting every few days.
- History of Type 2 diabetes with a Hgb A1c of 10
- BMI 42



- What is she at risk for?
- What tests should be done?

Labs and imaging results and possible treatments

Results

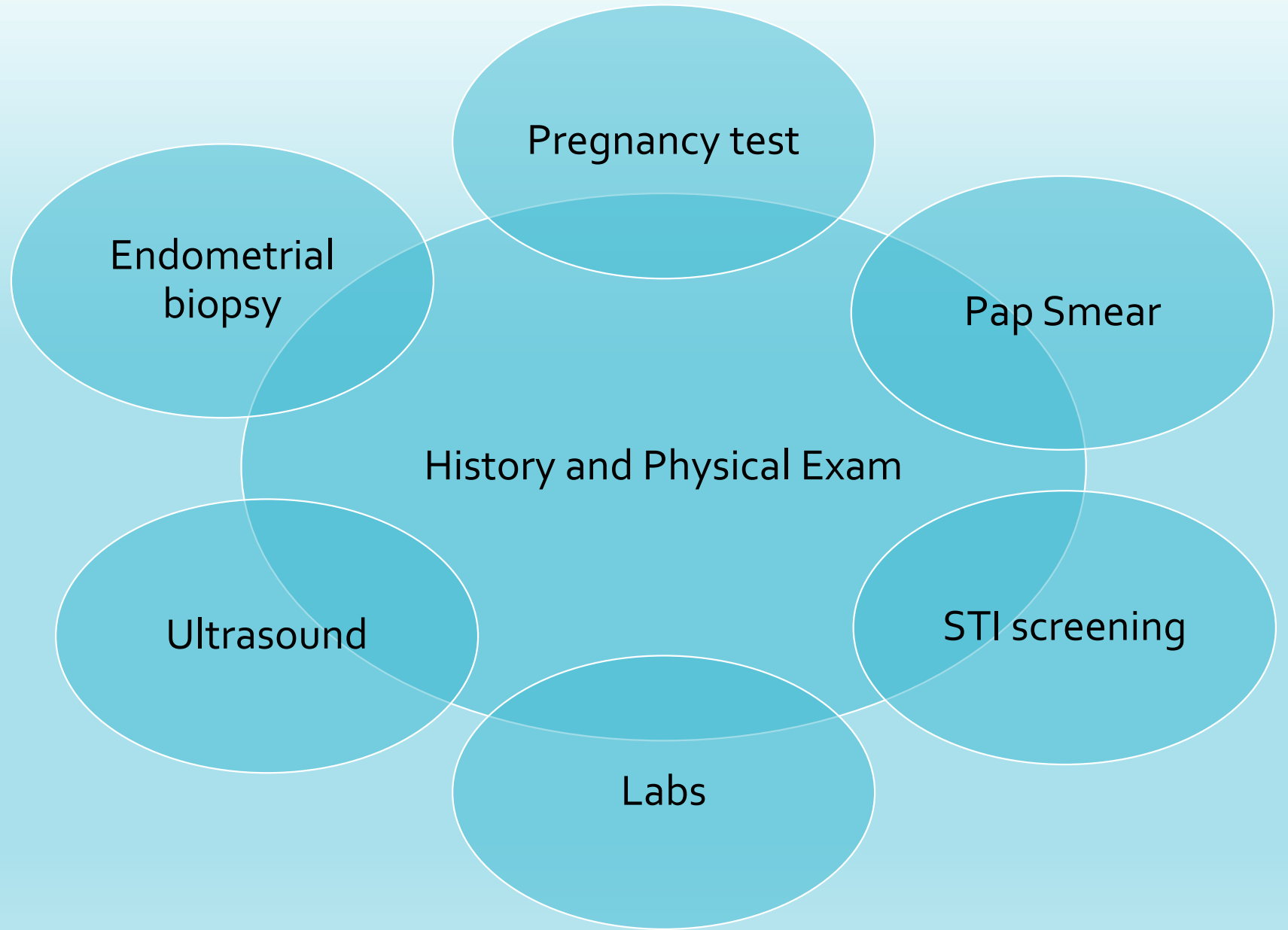
- Ultrasound shows an endometrial stripe of 15 mm (if less than 5 mm, then low likelihood of malignancy)
- EMB shows adenocarcinoma of uterus

Treatment

- Hysterectomy with Gyn Oncology

SUMMARY

Evaluation



Labs

Basic:

- Pregnancy Test
- CBC w/ plt
- TSH

Expanded/follow-up

- Hormones (LH, FSH, DHEA, PRL, progesterone, estradiol),
- coagulation studies
- iron studies
- HgbA1c & random Glucose
- STD screening for cervicitis (chlamydia)

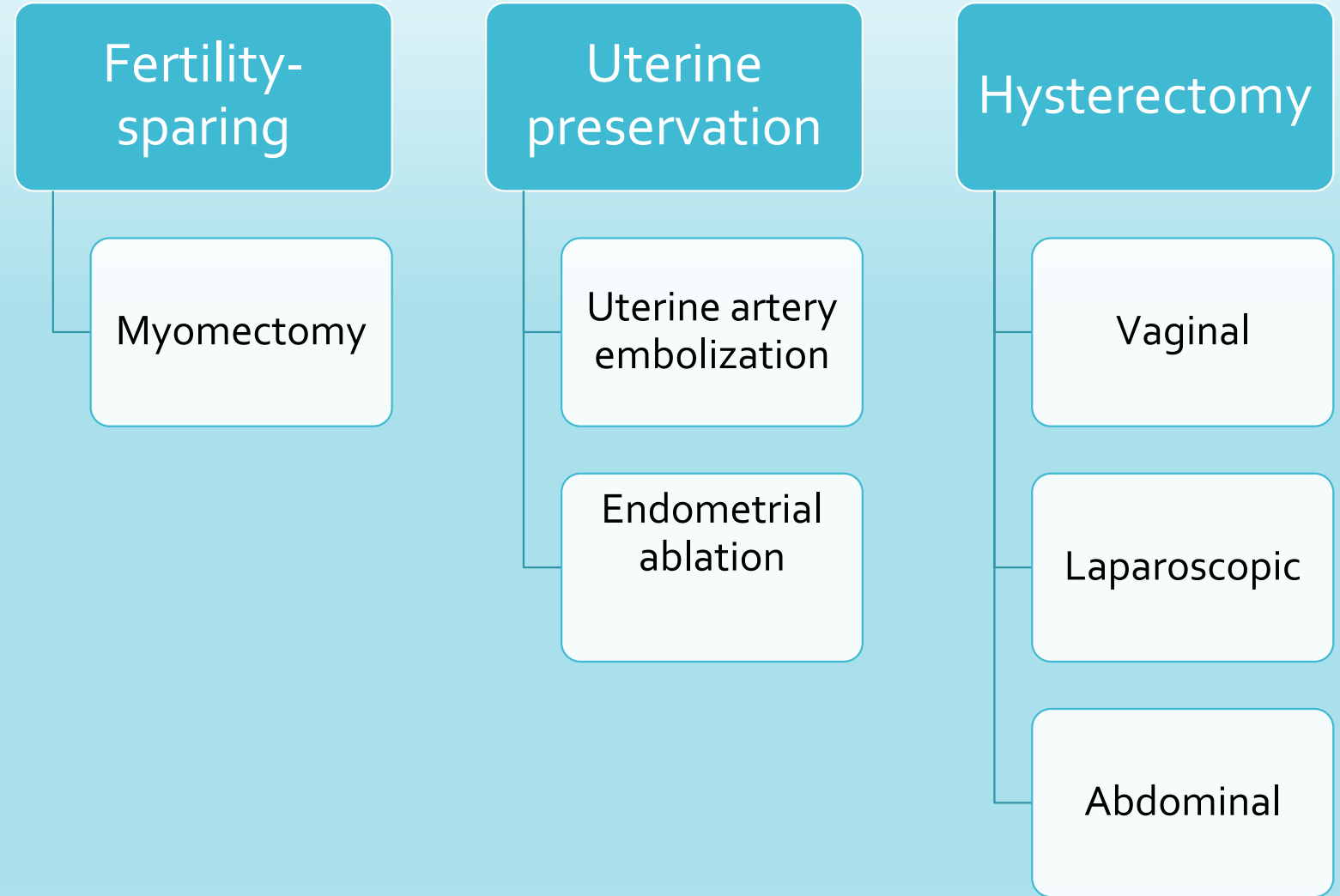
Endometrial biopsy

- Indicated in all women over age 45 with bleeding between periods
- Not indicated for pure menorrhagia unless in preparation for hysterectomy or ablative procedure
- Consider in all ages if risk factors present
 - History of obesity and prolonged episodes of amenorrhea
 - Endometrial cancer has been reported in adolescents

Medical Treatment

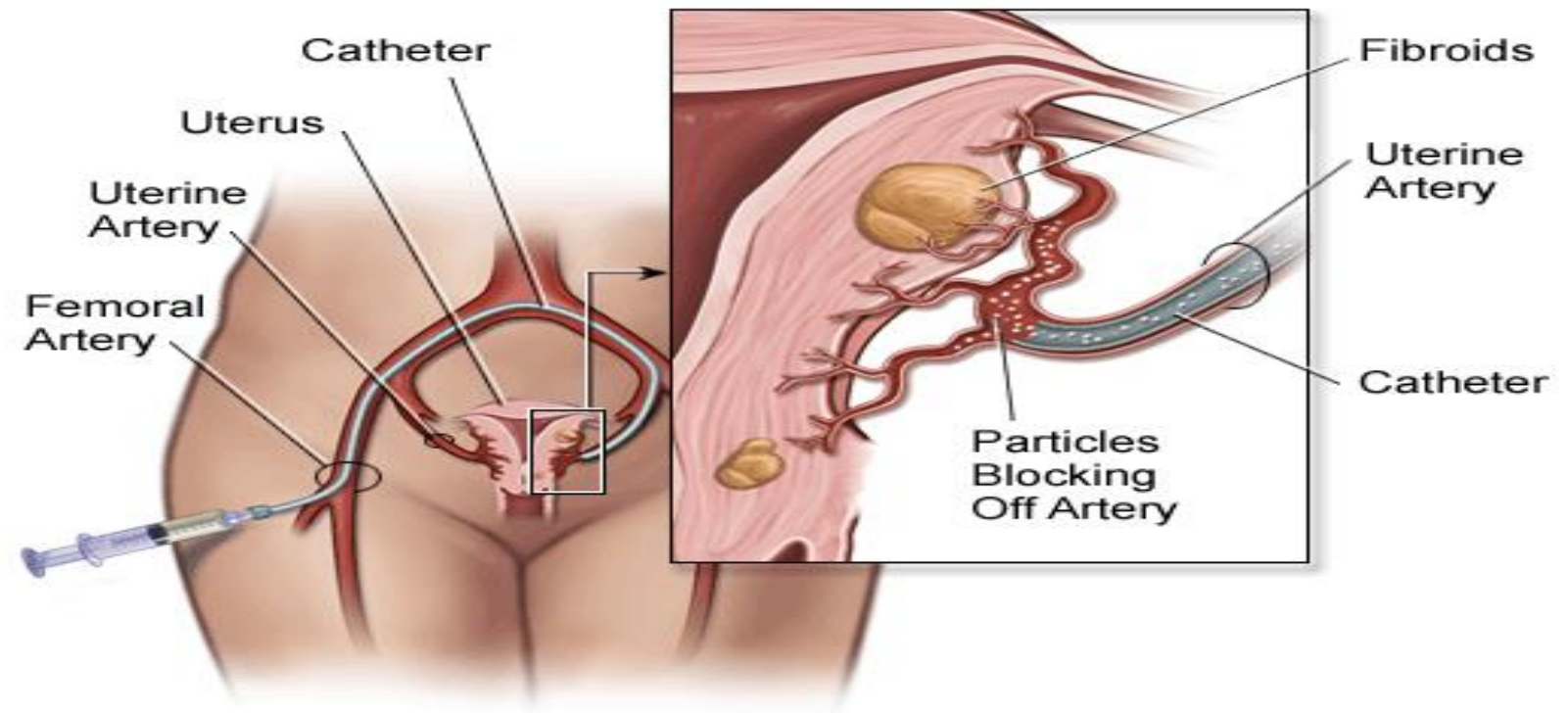
- Combined Oral Contraceptives
- Provera
- Depo-Provera
- Depo-Lupron (GnRH agonist)—creates temporary menopause, can use for 9 months, expensive
- **Progesterone IUD (Mirena)**—5 year duration

Surgical Treatment



UAE Procedure

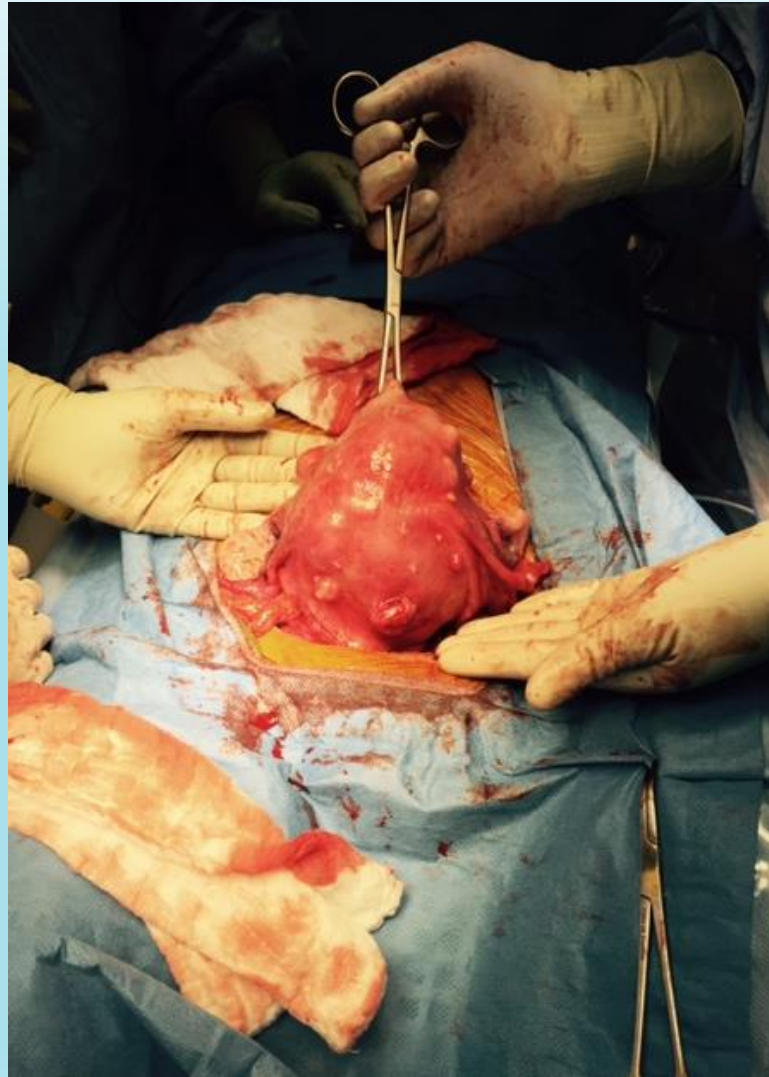
Uterine Artery Embolization Procedure



**Endometrial
Ablation-
Normal cavity**



Hysterectomy



Questions

THANKS

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