Obstetrics & Gynecology
TEAM

Abnormal Uterine Bleeding

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◆very important ◆mentioned by doctor ◆team notes ◆not important

Normal menstrual cycle:

To say this is a normal cycle you need to ask about these parameters: 1) Duration of the flow 2) Amount of the blood loss "In clinical setting it is a descriptive variable either heavy or light" 3) Pattern "Regular vs. Irregular" It is normally 29 days +/- a week.

The average adult menstrual cycle lasts 28 to 35 days

The first day of menses represents the first day of the cycle (day 1)

Approximately 14 to 21 days in the follicular phase

14 days in the luteal phase (Fixed)

How to know when the ovulation will happen?

You need to have some basic info about the patient menstrual cycle: 1-LMP 2-Pattern of the cycle 3-Expexted date of the next cycle. Then, you subtract 14 days from the expected date. Let's take an example of a woman whose LMP is August 20th. Her cycles are regular with 40 days. Assuming that August and September are 30 days long. Her expected date for the next cycle is October 1st, and the patient will ovulate on 16th of September.

Some Definitions and Facts

-**Abnormal uterine bleeding:** change in the frequency of menses, the duration of flow (>7days), and the amount of blood loss (>80ml). Present in ~10-20% of women >30 y. old

-**Menorrhagia:** heavy or prolonged, but regular bleeding

-**Metrorrhagia:** irregular (and heavy) bleeding, intermenstrual bleeding, spotting, or breakthrough bleeding

-**Menometrorrhagia:** prolonged bleeding at irregular intervals

-**Polymenorrhea:** menstrual interval <21 days

-**Oligomenorrhea:** menstrual interval >35 days

-**Dysfunctional Uterine Bleeding:** excessive uterine bleeding with no demonstrable organic cause (idiopathic); most often endocrinologic in origin

History (Every point is important)

1-Suggestive Symptoms of Heavy Bleeding

-Pads (# of pads/day, using maxi size, using 2 together)

-Presence of clots, socking clothes and /or bed

-Symptoms of anemia

2-Bleeding Pattern

-Regular or not

-Postcoital bleeding

-Intermenstrual bleeding

3-Other Symptoms

-Dysmenorrhea

-Chronic abdominal pain

-Symptoms of hyperandrogenism, hyperprolactenemia , hypothyrodism

4-Past Medical History

-Bleeding tendency

-Medication history

Examination

-**Vital signs** (are important to know if the patient is stable)

-Weight, height and BMI

-General exam: signs of anemia, hairsuitesm

-Abdominal exam (masses, scars and tenderness)

-Pelvic exam: masses, uterine size, tenderness

-Pap smear, endometrial biopsy

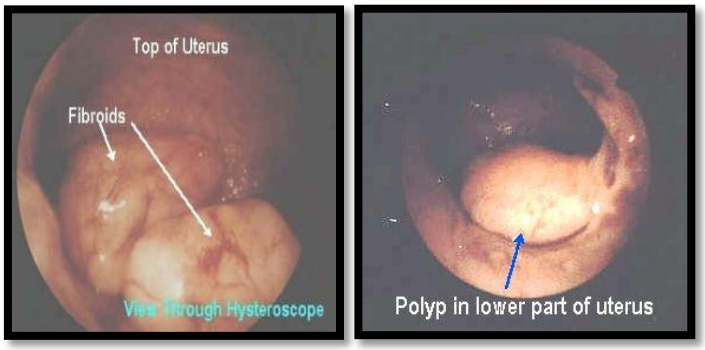
Systemic Causes of AUB

-Disorders of blood coagulation:
- Von Willebrand disease **(adolescence)**
- Prothrombin deficiency
- Carriers of hemophilia
- Factor XI deficiency
- Platelet deficiency (leukemia, severe sepsis, ITP, hypersplenism)

-**Hypothyroidism**, rarely hyperthyroidism
-Renal failure
-Cirrhosis (hypoprothrombopenia, decreased clotting factors)

Reproductive Tract Disease

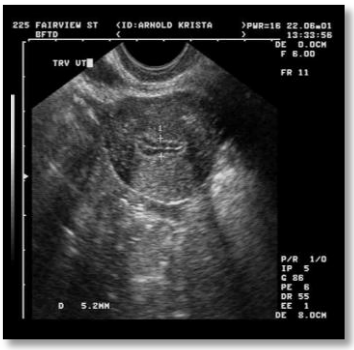
-Anatomic uterine abnormalities: sub mucous myomas (fibroids), endometrial polyps "You really need to read about uterine fibroids and polyps, the doctor mentioned that we will get a separate lecture about them"



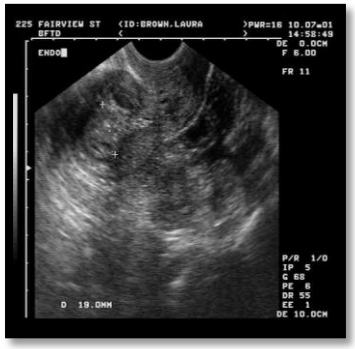
-Adenomyosis "It is simply endometrial tissue growing inside the muscular layer of the uterus" "you should differentiate it from endometriosis, which is endometrial tissue outside the uterus"
-Premalignant lesions: endometrial hyperplasia
-Malignancies: endometrial, cervical, vaginal, vulvar & oviductal Ca, estrogen-producing ovarian tumors (granulosa-theca cell)
-Infection of the upper genital tract endometritis "mainly postpartum"
-Cervical lesions: erosions, polyps, cervicitis (may cause esp. postcoital spotting)
-Traumatic vaginal lesions
-Severe vaginal infections
-Foreign bodies
-Oral and injectable steroids, tranquilizers, antiseizure medications
-Other drugs with estrogenic activity: digoxin, marijuana, ginseng

Investigations

-**CBC** "To know if the patient is anemic"
-Beta HCG "In a sexually active woman, you have to rule out pregnancy"
-**TSH** "Esp. Hypothyroidism"
-Prolactin "Usually it causes amenorrhea, however it may also causes AUB"
-Coagulation studies (Women with systemic disease)
-Von Willebrand disease (Adolescent girls)
-**U/S** is a very important test in Gynecology (uterine size, endometrial thickness, fibroids, polyps)



TV U/S showing the endometrial thickness



This is a Uterine Fibroid

-Day 21, Progesterone, (Luteal phase serum progesterone)
-Daily basal temp
"The goal of both of these tests is to know if ovulation has happened or not"
-Premenstrual sampling of the endometrium (office biopsy, D&C, hysteroscopic biopsy)
Indications for endometrial biopsy in AUB:
1-Every post menopausal woman who is bleeding
2-Women who are older than 40 with Irregular bleeding
3-Women who are younger than 40 but who have high risk for endometrial cancer (ex. PCOS)
-Hysteroscopy (remember: D&C misses the diagnosis in 10-25% of women; ~25% of women with presumptive Dx of DUB have uterine lesions on hysteroscopy)

Dysfunctional Uterine Bleeding

-Diagnosis of exclusion
-Caused alterations in prostaglandin synthesis
-Ovulatory (in up to 10%)
Short or inadequate corpus luteal phase
Often results in menorrhagia and intermenstrual bleeding (BTB)

-Anovulatory "more common, an example is PCOS"
Secondary to alterations in neuroendocrine function
Hypoestrogenic state or chronic unopposed estrogen

Treatment Modalities

-Treatment of DUB

Medical treatment
1-Hormonal Estrogens, Progestins (systemic or Progesterone releasing IUCD) Combined OCs
2-NSAIDs (esp. in ovulatory DUB)
3-Antifibrinolytic agents "Are agents given also in trauma and Post Partum Hemorrhage"
4-Low-dose danazol
5-GnRH agonists
Surgical
1-D & C
2-Endometrial ablation
3-Hysterectomy

-Treatment of uterine fibroid

Medical-same as DUB
UAE uterine artery embolization
Surgical
1-Myomectomy (laparoscopy hysteroscopy or laparotomy)
2-Hysterectomy

Always remember

1-Stabelize the patient first
2-Get IV access
3-Blood group and x-match
4-Treat anemia

Cases "Answers are from doctor"

Case # 1:

14 years old female presents with "heavy periods" never been sexually active generally healthy?

A-What is your DDx?

Von Willebrand disease -DUB

B-What is your treatment?

In the case of DUB, since the patient is young and still her body is adapting to cycles, you reassure the patient.

Case # 2:

38 years old woman with a history of heavy, infrequent (two per year), menses since menarche at age 12

- Spontaneous pulmonary embolism six years ago
  - O/E - Wt. = 150 kg. Ht. = 145 cm
  - Hirsutism involving upper lip, chin, midline chest and abdomen - negative speculum exam, bimanual limited by BMI.

A-What is your DDx?

PCOS-Hypothyroidism

B-What is your most likely diagnosis?

Most likely it is PCOS (High BMI, Hirsutism)

Case # 3:

48 years old obese pt. with oligomenorrhagia---> presents with 6 wk. history of constant bleeding --> now very heavy

- O/E ; Wt = 150kg, vitals stable, pelvic ; non-contributory except bleeding + + +
- Hgb =7, MCV=85

A-What is your most likely diagnosis?

Uterine Fibroids

B-Outline your immediate investigations and treatment

Order CBC, Hormonal Profile, and you might do a biopsy. The treatment is the same as mentioned in the lecture.

Case # 4:

43 years old lady known type2 DM and uterine fibroid presented with heavy regular vaginal bleeding.

A-What is your management?

You start with the medical options; however you have to inform the patient about all available treatments for fibroids.

B- Which investigation you need to do?

U/S

C-Do u need to do endometrial biopsy?

No, since the patient is having a regular bleeding and has a low chance of cancer