

Abnormal uterine bleeding

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Objectives

- Definition
- Causes
- Approach
- management

Definition

History

- A 26 years old G0P0 present to the office with a menstrual period every 3-4 months. Her periods are heavy and lasting for 7-9 days. Her BMI is 40. She complains of severe acne since puberty. Recently she was diagnosed with diabetes mellitus type 2 and there is No palpable masses in abdomen or genitourinary exams.

- **What are the initial lab test should be order ?**

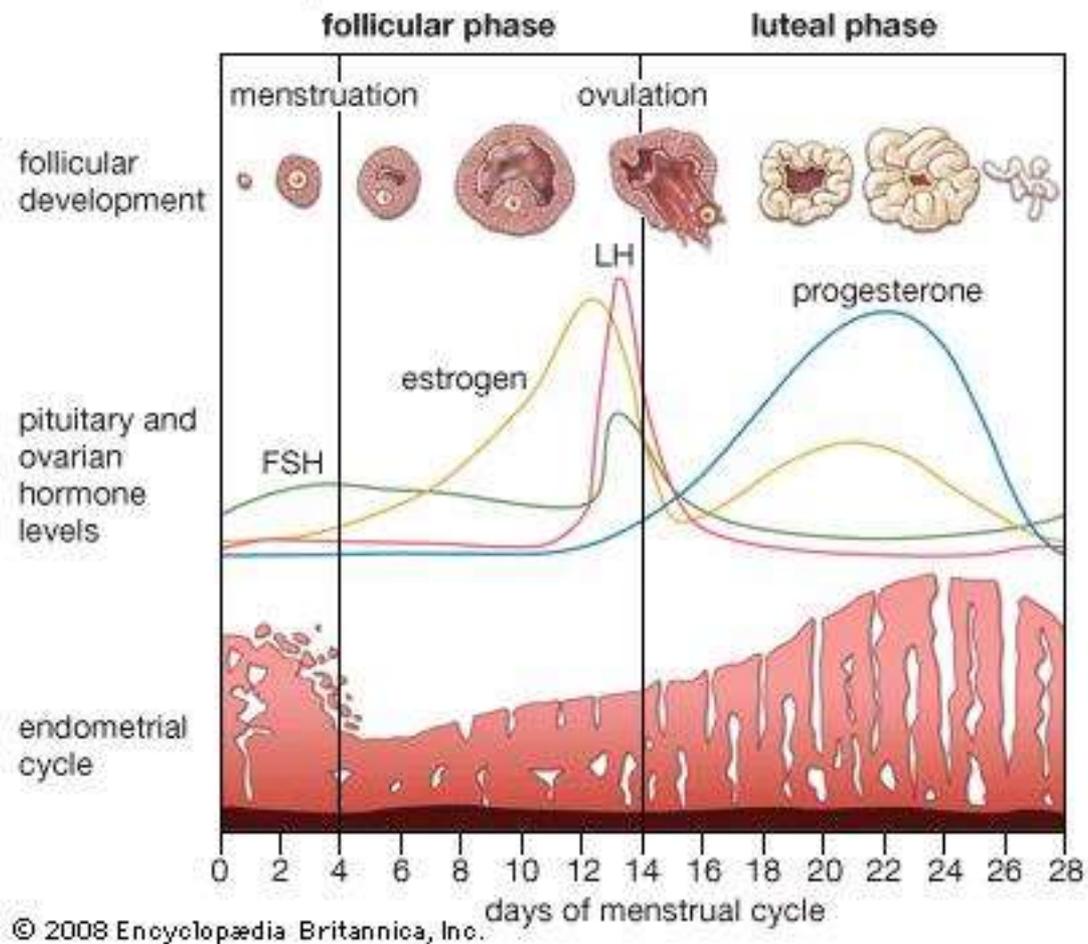
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Definition

- Polymenorrhea ?
- Menorrhagia ?
- Oligomenorrhea ?
- Metrorrhagia ?
- Menometrorrhagia ?
- Dysfunctional Uterine bleeding ?

The menstrual cycle



- The **follicular phase**

first-half of the menstrual cycle and is the source of the **variation** in cycle length.

The follicular phase begins with the onset of menses and ends in the ovulation of a mature oocyte

- The **luteal phase**

second-half of the cycle and **is more consistent** in length, lasting **12 to 14 days in most individuals**

Definition

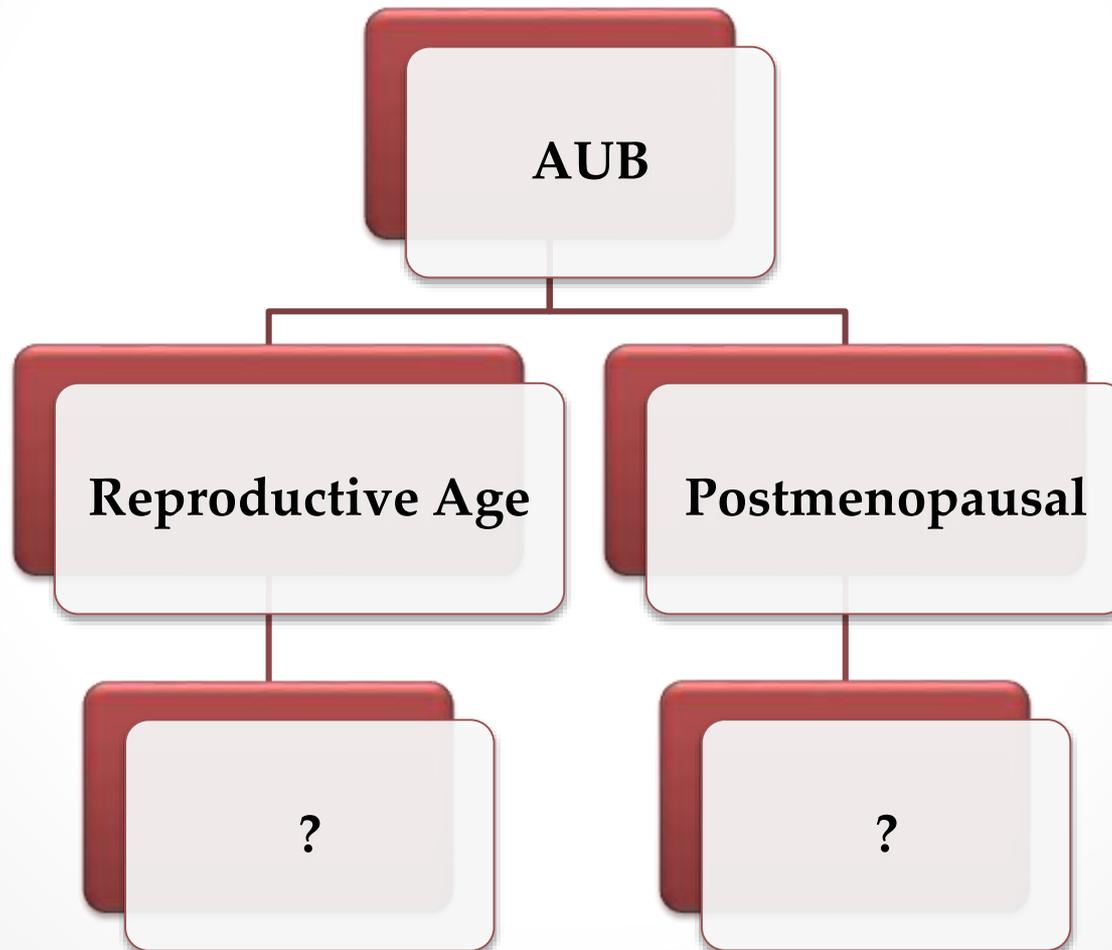
Definition	Interval	Frequency	Amount	Others
Polymenorrhea	Regular	Increase	Normal	< 21 days
Menorrhagia	Regular	Normal	Excessive	>7 days > 80 ml
Oligomenorrhea	Regular	Decrease	Normal	> 35 days
Metrorrhagia	IRregular	Normal	Normal	-----
Menometrorrhagia	IRregular	Normal	Excessive	Combination Meno + Metro

Definition

- Abnormal uterine bleeding :
- Bleeding in > 35 days.
- Bleeding in < 21 days.
- Bleeding is **Unpredictable** or **irregular**.
- Normal menstrual cycle occurs every 28 days ± 7

Causes ?

Causes



Reproductive Age causes

Reproductive Age causes

A.Organic

Anatomical

Pregnancy problem

Malignancy

Structural

Foreign bodies

Endometriosis



Reproductive Age causes

B. Systemic

Von willebrand disease
Prothrombin Deficiency
Leukemia
Hypothyroidism

C. Iatrogenic

Anticoagulation medication



D. Dysfunctional Uterine Bleeding:

Types:

1. Ovulatory:

- After Adolescence and before perimenopausal years
- usually **Menorrhagia**
- Due to abnormal Hemostasis due to any causes.
- Dx by EMB

2. Anovulatory:

- Due to continues Estrogen production Without Corpus luteum formation or progesterone production
- Irregular menses With Unpredictable bleeding

Dx by Exclusion

Dysfunctional Uterine Bleeding

- Anovulatory may Present in

- 1.PCOs

- 2.Obesity

- 3.adolescents

- 4.Perimenopause



Approach to Diagnose

Anatomical

Pregnancy

Most common

Anatomic lesion

Regular Menses
with
Bleeding between

Hormonal

DUB Anovulation.

Irregular menses
With
Unpredictable bleeding

Endometrial
hyperplasia

Less common

Summary

Hx PEx Invs.	Dx	Rx
Beta HCG ?	Pregnancy	Tx the complication
Unpredictable bleeding	Hormonal (No Progesterone)	Progesterone
Bleeding Normalized ? TSH - PRL	Anovulation	Progesterone trail
Bleeding between periods ?	Anatomical	Hysteroscopy
Abdominal biopsy	Hyperplasia No Atypia	Progesterone
	Hyperplasia with Atypia	Trans abdominal Hysterectomy

Postmenopausal Age causes

A 55-year-old female with LMP 5 years ago presents with a chief complaint of vaginal spotting.

She reports painful intercourse and burning in the vagina. Her spotting is not related to sexual activity. She denies any medical conditions and is not on any medications.

Pelvic exam reveals a dry vagina

- What is the most likely diagnosis for this patient?
- Bleeding due to atrophy

Postmenopausal bleeding is defined as bleeding that occurs after 1 year of amenorrhea.

- Vaginal bleeding after the menopause, In women who are not taking HRT

- **INCIDENCE**

4 to 11

The incidence of bleeding decreasing over time

Frequency of spontaneously occurring postmenopausal bleeding in the general population.

ETIOLOGY

- It is usually related to an intrauterine source, **but** sometimes arise from the cervix, vagina, vulva, or fallopian tubes and also may involve nongynecologic sites, such as the urethra, bladder, and rectum/bowel.

<95%

Atrophy

Polyps

Endometrial
hyperplasia

Endometrial
cancer

Hormonal
effect

Endometrial Biopsy Results in Women With Abnormal Uterine Bleeding

>5%

Leiomyomata
uteri

Utrine
sarcoma

Cervical
cancer

Post radiation

- **Vaginal, endometrial atrophy**
- It is most common cause
- It is due to ↓ production of estrogen which will cause degeneration of endometrium and vagina.
- This results in microerosions of the surface epithelium and a subsequent chronic inflammatory reaction (chronic endometritis), which is prone to light bleeding or spotting.

Classic vaginal findings:

- A pale, dry vaginal epithelium

- **Endometrial hyperplasia**

- Endogenous estrogen production from ovarian or adrenal tumors
- exogenous estrogen therapy
- Obesity

HISTORY

When did the bleeding start?

What is the nature of the bleeding?

Were there precipitating factors, such as trauma?

History of bleeding in relation to sexual activity.

Foul smelling discharge ?

Are there any associated symptoms such as dyspareunia, fever, weight loss, abdominal pain or changes in bladder or bowel function .



HISTORY

- Number of children and age of menarche?
- When was your last period?
- Last pap smear?

- past medical history.
- Chronic diseases: DM-HTN
- Medications: HRT(tamoxifen)-anticoagulants
- Family history of bleeding, gynecologic cancer, breast cancer.

physical examination

- **General examination**
- Unstable vital sign
- BMI
- Pallor

- Abdominal examination
- Assess the size, contour, and tenderness of the uterus

- Vaginal examination

- Inspection

lesions, lacerations, discharge, or foreign bodies.

- speculum

vaginal tissues for atrophy (pale - dry vaginal epithelium)and the cervix for polyps

- Pap smear

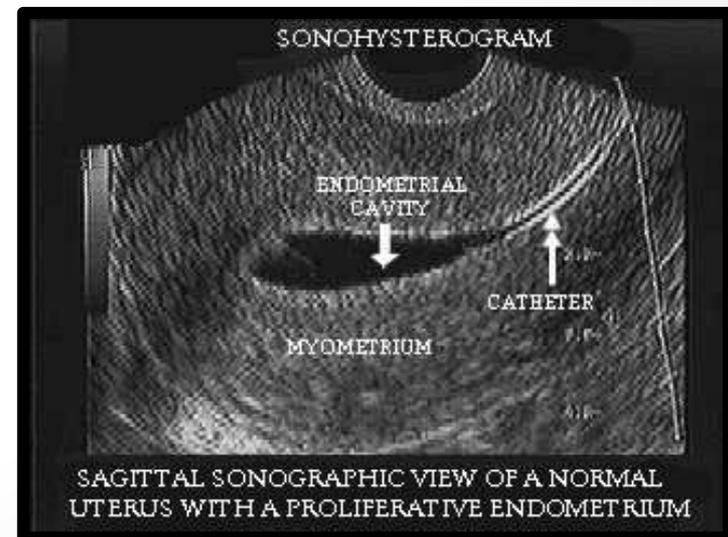
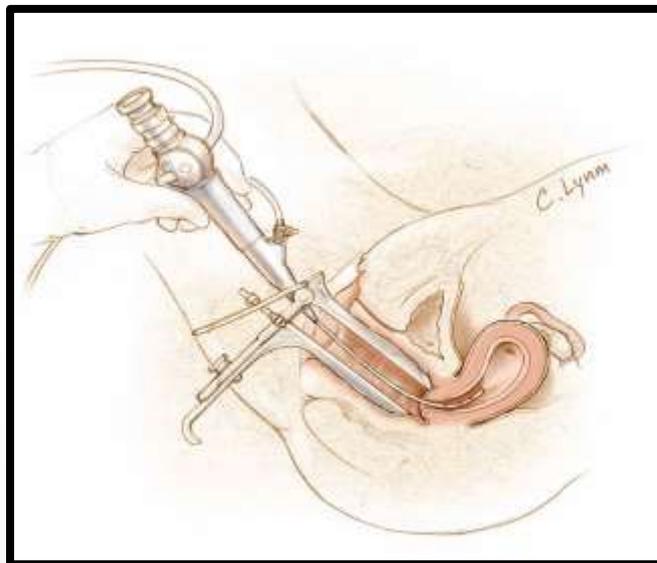
Investigation and management

Investigation

- Initial workup :
 - Complete blood count
 - Blood type and cross match
 - Pregnancy test
- Hematological disorders :
 - Partial thromboplastin time
 - Prothrombin time
 - Activated partial thromboplastin time
 - Fibrinogen

- All women with abnormal hematological disorders test should go for von Willebrand disease :
 - von Willebrand factor antigen
 - Ristocetin cofactor assay
 - Factor VII
- Other test can be done:
 - Thyroid stimulating hormone
 - Serum iron, total iron binding capacity and ferritin
 - Liver function test
 - FSH
 - prolactine

- Procedure can help in diagnosis:
 - **Ultrasound**
 - **Sonohysterography**
 - **Endometrial biopsy** : more than 35 with abnormal bleeding must have it
 - **Hystroscopy**
 - **D&C**



Management

- **Hormonal management** :1st line of medical therapy
 - **Combined contraceptive pills**: work by regulating menstrual period and prevent overgrowth of the endometrium
 - **Estrogen**: work as replacement of endogenous estrogen and inhibit clot formation at capillary
 - **PrGESTRON**: progestin work by regulating menstrual period and prevent overgrowth of the endometrium in addtin to reduction of menstrual blood loss.
 - **IUD**: secret progestin

- Non-hormonal drugs :
 - **NSAID** : decrease blood loss and abdominal contractions by inhibition of prostaglandin
 - **GnRH agonist** : cause decrease of estrogen level
 - **Desmopression** : stimulate the production of von Willebrand factor
 - **Antifibrinolytics** : like tranexamic acid which inhibit the conversion of plasminogen to plasmin

- Indication of surgical management :
 - Sever bleeding
 - Contraindication of medical therapy
 - Not improving by medical therapy
- In addition to these previous condition patient opinion and plan of future pregnancies and risk of malignancy must be accounted

- Options of surgical management :
 - **D&C** : can be done for endometrial polyps , submucosal fibroid and endometrial hyperplasia. In case of DUB s/s treatment
 - **Uterine artery embolization** : obstruct blood supply to fibroid
 - **Endometrial ablation** : thermal or laser. Used for DUB
 - **Hysterectomy** : the definitive treatment

Any
Questions

Thank you



References

Essentials of Obstetrics and Gynecology (Hacker and Moore's) 5th Edition.

First aid for the Obstetrics and Gynecology 3th Edition.

Up-to-date

