ABNORMAL UTERINE BLEEDING

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at Fayette County Memorial Hospital

FAYETTE

County Memorial Hospital

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SOME OFF LABEL USE OF MEDICATIONS

WHAT IS ABNORMAL UTERINE BLEEDING?

FIGO MDG(International Federation of Gynecology and Obstetrics Menstrual Disorders Group) introduced new definitions and classifications of abnormal uterine bleeding in 2011. This is intended to replace confusing and nonspecific terms including menorrhagia, menometrorrhagia, metrorrhagia, dysfunctional uterine bleeding, polymenorrhea, oligomenorrhea and uterine hemorrhage.

WHAT IS ABNORMAL UTERINE BLEEDING?

30% of women will have some abnormal uterine bleeding during their reproductive years.

To understand abnormal, we need to know what is normal

THE MENSTRUAL CYCLE.

WHAT IS ABNORMAL UTERINE BLEEDING?

Menstrual cycles are determined to be normal or abnormal based on their length, regularity, duration and volume.

NORMAL MENSTRUAL CYCLES

Length

- 24 to 38 days

Regularity

- Should be the same cycle length within 9 days

Duration

- Should last 8 or less days

Volume

- Should be a normal volume
- 80 ml blood loss

THE OVARIAN CYCLE.

WHAT IS ABNORMAL UTERINE BLEEDING?

Cycle length abnormalities

- Frequent menstrual cycles are less than 24 days
- Infrequent are more than 38 days
  - A term previously known as oligomenorrhea
- Secondary amenorrhea
  - No menses for 3 months if previously regular periods
  - No menses for 6 months if previously irregular periods
- Primary amenorrhea
  - No periods by age 15

WHAT IS ABNORMAL UTERINE BLEEDING?

Duration abnormalities

- Prolonged bleeding is more than 8 days of menses

Regularity abnormalities

- Irregular periods if greater than 7 to 9 days variation (some say +/- 4 days)

Volume abnormalities

- Heavy flow is subjective to the patient who states that their period interferes with their life

WHAT IS ABNORMAL UTERINE BLEEDING?

Intermenstrual bleeding (bleeding between periods) IMB

- Random
- Cyclic
  - Early cycle
  - Midcycle
  - Late cycle

Unscheduled bleeding on hormone medication (breakthrough bleeding)

WHAT IS ABNORMAL UTERINE BLEEDING?

Acute AUB

- Uterine bleeding that requires immediate intervention to prevent further blood loss

Chronic AUB

- Abnormal frequency, regularity, duration or volume of menses that has been present for the majority of the past 6 months or longer

OVARIAN ACTIVITY

PALM-COEIN

PALM-COEIN

P=polyp

A= adenomyosis

L=leiomyoma

M=malignancy and hyperplasia

C=coagulopathy

O=ovulatory dysfunction

E=endometrial

I=iatrogenic

N=not otherwise classified

PALM

Anatomical causes of bleeding

- Polyps
- Adenomyosis
- Leiomyoma
- Malignancy

ENDOMETRIAL POLYPS

P=POLYP
ENDOCERVICAL POLYPS
ENDOMETRIAL POLYPS

ENDOMETRIAL POLYPS

DIAGNOSIS

Visualization on exam

Ultrasound

Hysteroscopy

TREATMENT

Removal

- Polypectomy
- Dilation and Curettage (D&C)
- Myosure or similar hysteroscopic surgery

ADENOMYOSIS

A=ADENOMYOSIS
ENDOMETRIOSIS OF THE MYOMETRIUM
BOGGY UTERUS

ADENOMYOSIS

DIAGNOSIS

No way to make the diagnosis without pathology

High index of suspicion

Exam

US/ MRI

TREATMENT

Hysterectomy

Other options to preserve uterus

- Levonorgestrel IUD
- Birth control pills
- Progesterone
- Leuprolide or GnRH agonist
- Endometrial ablation
- Uterine Artery Embolization (UAE)

LEIOMYOMA

L = LEIOMYOMA

FIBROID

LEIOMYOMA

DIAGNOSIS

Exam

US/MRI

TREATMENT

Hormonal therapy

- Contraceptives
- IUD
- Progesterone
- GnRH agonists

Surgery

- UAE
- Myomectomy
- Endometrial ablation
- Hysterectomy

MALIGNANCY

M=MALIGNANCY
ENDOMETRIAL CARCINOMA
CERVICAL CARCINOMA
VULVAR/VAGINAL CARCINOMA
ATYPICAL ENDOMETRIAL HYPERPLASIA

UTERINE CANCER

- Exogenous estrogen/ estrogen agonists
  - unopposed estrogen
  - hormone therapy
  - tamoxifen
- Endogenous estrogen
  - obesity
  - chronic anovulation
  - estrogen secreting tumors
- Family history
  - BRCA
  - Lynch syndrome
- Infertility
- Hypertension and Diabetes

ENDOMETRIAL CARCINOMA AND ATYPICAL ENDOMETRIAL HYPERPLASIA

DIAGNOSIS

Exam

US

Endometrial biopsy

- In office
- Dilation and Curettage

TREATMENT

Hysterectomy

Progestin therapy

CERVICAL CARCINOMA

DIAGNOSIS

- Exam
- Pap smear with HPV testing
- Colposcopy with biopsy
- Biopsy

TREATMENT

- Hysterectomy
- Radiation
- Chemotherapy

PALM-COEIN

P=polyp

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COEIN

Non anatomical causes

- Coagulopathy
- Ovulatory Dysfunction
- Endometrial
- Iatrogenic
- Not Otherwise Classified

COAGULOPATHY

C = COAGULOPATHY

COAGULOPATHY

DIAGNOSIS

Labs

- CBC
- PT/PTT

FURTHER INFORMATION

15-24% of patients with HMB (heavy menstrual bleeding) have a bleeding disorder

- Most common is von Willebrand disease
- Thrombocytopenia
- Platelet function defect

Especially need to consider if heavy prolonged bleeding begins with menarche

Family history is important

Don't forget to check medication list

History of other bleeding-nose bleeds, easy bruising

OVULATORY DYSFUNCTION

O=OVULATORY DYSFUNCTION

OVARIAN (OVULATORY DYSFUNCTION)

DIAGNOSIS AND TREATMENT

Lab

Correct underlying problem

Cycling with progestin

MORE INFORMATION

Often no identifiable cause

Perimenopausal

Can be related to stress, weight loss/gain, excessive exercise

Factors effecting HPO axis

- PCOS
- Thyroid
- Prolactin

HPO

Hypothalamus Pituitary Ovary Axis

ENDOMETRIAL

E=ENDOMETRIAL

ENDOMETRIAL

DIAGNOSIS OF EXCLUSION

No testing available

TREATMENT

Hormone therapy

IUD

Endometrial ablation

Hysterectomy

IATROGENIC

I=IATROGENIC

IATROGENIC

MEDICAL DEVICES OR MEDICATIONS	TREATMENT
IUD	Remove the IUD
Hormones	Change medications
Hormone related therapy ▪ GnRH ▪ Aromatase inhibitor ▪ SERM	Adjust therapy
Anticoagulant	
Medications that interfere with ovulation ▪ Antipsychotics ▪ antidepressants	

NOT OTHERWISE CLASSIFIED

N=NOT OTHERWISE CLASSIFIED

NOT OTHERWISE CLASSIFIED

Infection

- Endometritis
- Pelvic Inflammatory Disease

Gestational Trophoblastic Disease (Molar Pregnancy)

EVALUATION

EVALUATION OF ABNORMAL UTERINE BLEEDING

1. Is the bleeding from the uterus?
2. Is the bleeding postmenopausal?
3. Is the patient pregnant?

EVALUATION OF ABNORMAL UTERINE BLEEDING

1. **Take a history including**
   1. Menstrual history
   2. Symptoms related to bleeding
   3. Medical, surgical and gynecological history
   4. Medications
   5. Risk factors for endometrial carcinoma
   6. Family history of bleeding disorders
2. **Physical exam**
   1. Vital signs
   2. Speculum and bimanual exam
3. **Labs**
   1. HCG
   2. Hgb/Hct

FURTHER EVALUATION

1. Pelvic Ultrasound
2. Additional labs
3. Endometrial biopsy
4. Cervical evaluation

SECONDARY AMENORRHEA

SECONDARY AMENORRHEA: ETIOLOGIES

Endocrine

- Hypothyroid
- Cushing's disease
- Adrenal tumor
- Ovarian testosterone producing tumor

Hypothalamic-Pituitary

- Hypothalamic dysfunction
- Low body fat
- Eating disorder
- Pituitary tumor
- Sheehan’s syndrome

Ovarian

- PCOS
- Premature ovarian failure
- oophorectomy

Uterine

- Asherman’s syndrome
- hysterectomy

CAUSES OF SECONDARY AMENORRHEA

Pregnancy

- #1 cause

Ovarian

- 40%
  - 30% PCOS
  - 10% POI

Hypothalamic

- 35%
  - Functional hypothalamic amenorrhea

Pituitary

- 17%
  - 13% hyperprolactinemia
  - 1.5% empty sella
  - 1.5% Sheehan's syndrome
  - 1% Cushing's disease

Uterus

- 7%
  - Asherman's syndrome

Other

- `1%
  - Ovarian tumors, adrenal tumors, hypothyroidism,

FUNCTIONAL HYPOTHALAMIC AMENORRHEA

Female athlete triad

- Amenorrhea
- Eating disorder
- Bone loss
- Ballet, gymnastics, running especially

Weight loss

Stress

Low BMI

Excessive exercise

Nutritional disorders

- Celiac disease

Severe illness

CYNTHIA'S QUICK AND EASY SECONDARY AMENORRHEA WORK UP

Pregnancy test negative

Exam normal? Obese? Thin?

History-birth control? Meds?

Labs: TSH, testosterone, prolactin

TSH abnormal-treat

Testosterone elevated-PCOS

- If testosterone >150 do US ovaries
- Treat PCOS with birth control pill

All normal? Progesterone withdrawl.

- Bled-great-now what?
- No bleeding? Now what?

Premature ovarian failure

- FSH, estradiol level

Functional hypothalamic amenorrhea (GnRH deficiency)

ACUTE AUB

TREATMENT OPTIONS

ACUTE ABNORMAL UTERINE BLEEDING

Patient with prolonged or heavy bleeding that needs to be stopped due to anemia and/or life impact.

Treatment options (ACOG Committee Opinion 557):

- conjugated equine estrogen 25mg IV every 4-6 hours for 24 hours
- combined oral contraceptives 35mcg monophasic pill tid X7 days
- medroxyprogesterone acetate 20mg tid X7 days
- tranexamic acid 1.3 g orally tid for 5 days

ACUTE ABNORMAL UTERINE BLEEDING

Cynthia's protocol

Norethindrone acetate 5mg every 4 hours until bleeding stops and then for 24 hours and then taper down. Rx for #40 and taper by doing every 6 hours for 3 days and then every 8 hours for 3 days and then every 12 hours for 3 days and then daily until medication is gone. If they have breakthrough bleeding increase to the previous dose. Don't start taper until no bleeding for 24 hours.

Will usually have a period after finishing taper because now you have done progesterone withdrawl.

CASES?

Anyone?

What are some patients that you have had concerns with evaluation?