Heavy Menstrual Bleeding in the Adolescent

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March 15, 2017

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Objectives

- Understand the definition of AUB
- Define how to use FIGO Classification of AUB
- Evaluation and treatment of adults with AUB
- Differences in Adolescent diagnoses, testing, treatment

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Disclosures

- none

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Case 1

- 14 year old referred for heavy, irregular periods.
- Mom says periods come every two weeks, and interfere with her swim team practices.
- Pt with cramping and pain during bleeding.

What history do you want from her?
What is your evaluation?
What treatment?

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Case 2

- 17 year old with regular periods, but has spotting for a week after her period, and foul smelling vaginal discharge.

What history do you want from her?
What is your evaluation?
What treatment?

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Case 3

- 16 year old with regular, heavy periods with significant pain.
- Pt states that she misses 2-3 days of school each month.
- Motrin, alleve, Tylenol not helpful

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Case 4

- 4 yo with spotting for 1 month
- Mom finds yellow discharge on pants that smells funny
- No pain

Abnormal Uterine Bleeding (AUB)

- 1/3 of complaints in women of reproductive age
- Refers to quantity, duration or schedule: What is normal?
- Anovulation common in first few years after menarche
- Differs from anovulation in adults in character
- Must rule out pregnancy
- LOCAH
- Other illnesses may affect menses
- Midcycle spotting

FIGO PALM-COEIN

Abnormal Uterine Bleeding
- Heavy Menstrual Bleeding
- Intermenstrual bleeding

PALM: Structural Causes
- **P**olyp
- **A**denomyosis
- **L**eiomyoma
- Submucosal Myoma
- Other Myoma
- **M**alignancy and Hyperplasia

COEIN: Nonstructural Causes
- **C**oagulopathy
- **O**vulatory dysfunction
- **E**ndometrial
- **I**atrogenic
- **N**ot yet classified

Differential Diagnosis of AUB in Adolescent

- Anovulatory bleeding
- Pregnancy
- Infection: PID, cervicitis, vaginitis
- Bleeding disorders: thrombocytopenia, leukemia, aplastic anemia, hyupersplenism, chemo
- Clotting disorders: vWD, platelet dysfunction, liver dysfunction
- Endocrine: thyroid, adrenal, prolactinemia, PCOS, ovarian failure
- Vaginal abnormalities: carcinoma or sarcoma, laceration
- Cervical problems: cervicitis, polyp, hemangioma, carcinoma or sarcoma
- Uterine problems: submucous myoma, congenital anomalies, polyp, carcinoma, use of IUD, BTB on OCPs, midcycle spotting
- Ovarian problems: cysts, tumors
- Endometriosis
- Trauma
- Foreign body
- Systemic diseases: DM, Renal, SLE
- Medications: OCPs,anticoagulants, platelet inhibitors, androgens, spironolactone, antipsychotics

Is it coming from the uterus?

- Cervix
  - Rule out infection
- Vagina
  - Trauma
  - Foreign body
- Vulva
  - Trauma
  - Infection
- Rectum

Anovulation in the Adolescent

- Avg age of menarche: 12
- 2-3 years to get to a regular pattern
- Immature HPO
  - Relative elevation of FSH to LH
  - Poor feedback of estrogen on FSH
  - Increased estrogenic response leads to thicker endometrium
  - Incomplete luteinization

Treatment, General

- Based on findings
- Polyp: surgical
- Anovulation: medical
- Leiomyoma: medical, surgical
- AVM: interventional radiology
- Bleeding problem: medical

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Adolescents are not little adults…

- Immature HPO
- Less likely to be polyps or fibroids
- Presentation of structural problems
- More likely to be hematologic 1:20 to 1:1000 with hgb <10
- Foreign body- tampon, toilet paper
  - Assess for foul smelling odor
  - Vaginoscopy
- Abuse
- STDs: may not be forthcoming about activity

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Differences in History

- Bleeding diary
- Type of bleeding: brown, red, spotting
- Other symptoms such as acne, hirsuitism, virilization, cushingoid
- Evaluate for exercise and eating disorders
- Interview with and without adult
- Never fail to rule out pregnancy and STDs
- STD screen if symptoms of AUB and always if 15-25 yo
- Get a birth history and early pediatric history

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Exam differences

- Do you really need to use a speculum?
- No bimanual usually/ can do rectal exam of single digit exam
- Abdominal ultrasound only unless sexually active
- Frog leg patient on table
- Assess fat distribution, tanner staging, acanthosis nigricans, thyroid, breast exam, petechial or bruises,

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Testing

- Abdominal Ultrasound
- If heavy bleeding, hgb
- If heavy bleeding since menarche, and hgb less than 10 or history of transfusion assess for coagulopathy
- Thyroid, prolactin, diabetes screen
- Total testosterone and DHEAS, 17OHP if clinical hyperandrogenism

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Treatment for Mild DUB

- Longer bleeding or cycle shortened for >2 months
- Flow moderate, normal hemoglobin
- Antiprostoglandins: motrin, naproixen, mefanamic acid during menses

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Treatment of Moderate DUB

- Moderately prolonged or frequent menses
- Flow moderate to heavy
- Mild anemia
- OCPs, provera or progestin
- OCPs best at helping to stop bleeding
  - 30-35mcg pills
  - For more severe bleeding can take Q6 h for 2-4 days, then TID x 3d, BID x 2 weeks
- Aygestin 5mg daily if contraindications to estrogen

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Severe DUB

- Prolonged, heavy, severely anemic hgb<9
- Clotting studies
- Can use 30 or 50 mcg pill every 4 hours until bleeding slows, Q 6 h x 1d, 8hx2d then BID to complete 21 days of hormones
- Continue only active pills until anemia resolves: iron and folate
- May need to hospitalize
- IV estrogen 25 mg IV q 4h for 2-3 doses
- If EE contraindicated then can give aygesin 5-10 mg Q 4h
- Rarely need surgery

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Treatment Differences

- **Progesterone should not be used in girls unless they have attained at least Tanner Stage 2 breast development to prevent tubular breast formation**
- Adult medicines are not always approved for kids
- Dosing
- Drug interactions:
  - Antiepileptics may increase metabolism of drugs
- Risk of unintended pregnancy if on them, if not on medicine

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Unique Treatment Options for Adolescents

- Dysmenorrhea
  - Mefenamic Acid (Ponstel)
    - Age 14 and up
    - 500mg at onset of bleeding then 250mg every 6 h prn, not to exceed 1 week
    - NSAID
- Heavy Bleeding
  - Tranexamic Acid (Lysteda)
    - Age 12 and up
    - 1300mg TID up to 5 days during menstruation
    - Antifibrinolytic agent/lysine analog
    - Do not use with E or P as increases thrombotic potential

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Thank you!

- Questions?
- nbudrys1@hfhs.org

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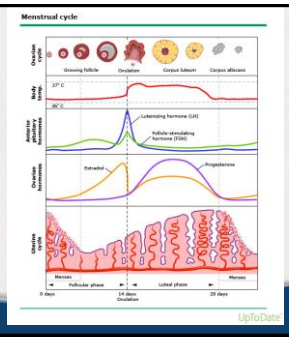

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