Update on Abnormal Uterine Bleeding

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Defining Abnormal Uterine Bleeding (AUB)

• Normal menstrual cycle
  – Frequency 21-35 days (1st day to 1st day)
  – Fairly regular intervals
  – Blood loss <80 ml (???)
    • Soaks pad or tampon in less than 2 hours AND/OR amount interferes with daily activities (work, stains clothing or bedding, leaving the house)
  – Duration of 5 days
Taking a Gynecologic History

• Menstrual history:
  – 1\textsuperscript{st} and last day over several cycles, number of days of heavy/light menses, intermenstrual or postcoital bleeding, number of episode of bleeding over the past 12 months

• Sexual history:
  – Cervicitis or endometritis/PID

• Contraceptive history:
  – Iatrogenic bleeding (Paraguard-heavy, Mirena/Nexplanon-irregular or absent, OCPs-BTB)

• Family history:
  – Bleeding disorders, colon/gyn malignancy (Lynch/Cowden)
DEFINING AND CODING THE PROBLEM

ICD-10

“AUB” paired with descriptor

• DENOTES PATTERN
  – Heavy menstrual bleeding (HMB)
  – Intermenstrual bleeding (IMB)
  (replaces menorrhagia and metromenorrhagia)

“AUB” with letter qualifier

• DENOTES CAUSE
  – (AUB-P): Polyps
  – (AUB-A): Adenomyosis
  – (AUB-L): Leiomyoma
    • SM or O
  – (AUB-M): Malignancy
Terminology (and DD) Defines Pattern & Etiology

**PALM**
- Polyps
- Adenomyosis
- Leiomyomas
- Malignancy

**COEIN**
- Coagulopathy
- Ovulatory dysfxn
- Endometrial
- Iatrogenic
- Not yet classified
DD by History

- **Fibroids**: heavy, prolonged bleeding
- **Polyps**: irregular/intermenstrual bleeding, Tamoxifen use, Lynch/Cowden, endometrial cells on Pap smear, obesity
- **Adenomyosis**: heavy, painful bleeding, dysparunia, uterine tenderness, on exam globular, soft uterus enlarged to less than 12 weeks size
- **Malignancy**: irregular, prolonged, sometimes heavy, does not respond to initial treatments, risk factors such as obesity, unopposed estrogen
DD by Hx/Cause

- **Coagulopathy**: family history, present since menarche, bleeding with procedures, not responsive to treatments (20% risk!)
- **Ovulatory dysfunction**: prolonged intervals of no bleeding, cycles length varies by more than 10 days, lack of molima, elevated androgens, hirsuitism
- **Multifactorial**: endometritis related to IUD, fibroids present with anovulatory cycles or malignancy
EVALUATION

- **Labs**: Hgb/Hct, β-HCG, Pap, GC/Chlam, TSH, androgens, E/P
- **Ultrasound**: Abnormal exam, suspect pathology such as polyps/adenomyosis
  - Endometrial stripe only in PMB
- **Endometrial biopsy**:
  - Age greater than 45
  - Inadequate treatment response
  - Risk factors for malignancy or hyperplasia
Additional Tests

• Saline Infusion Sonohysterography (SIS)

![Images of sonohysterography. The uterine wall and saline in the uterine cavity are seen as black or "empty" space. A fibroid (benign tumor) is seen in the uterine cavity in the image on the right.]

Preferably between end of menses and day 8

• Hysteroscopy

![Images of hysteroscopy. Top of Uterus with fibroids and View through hysteroscope.]
Treatment

- **Polyps**: hysteroscopic resection
- **Adenomyosis**: hysterectomy, UAE
  - Hormones may improve in some women with COC continuous use
- **Leiomyomas**: hysteroscopic resection (requires additional imaging), GnRH agonist, UAE, hysterectomy
- **Malignancy**: surgical for cancer, medical high dose progestins for hyperplasia
  - 20% risk of cancer with atypia → surgical recommended
Treatment

• Coagulopathy:
  – treat underlying defect

• Ovulatory dysfunction:
  – stop acute bleeding (estrogen) and prevent recurrence:
    • Hormonal: Mirena/Skyla, Depo Provera, COCs, Nexplanon
    • metformin in PCOS-not recommended as sole treatment
Treatment

• Endometrial:
  – Medical:
    • NSAIDs
      – Decrease in COX/endoperoxides → vasoconstriction of spiral arterioles and contraction of myometrial smooth muscle
    • tranexamic acid (Lysteda) 1300 mg TID for up to 5 days during menses
      – Anti-fibrinolytic: stabilizes fibrin plug by preventing plasmin from binding, lowers tPA level
    • Mirena
      – Pseudodecidualization, glandular atrophy, leukocytic infiltration, decrease glandular to stromal mitosis
  – Surgical:
    • Endometrial ablation: Novasure, Thermachoice
Endometrium and the Brick Wall Analogy

Normal endometrium

Complex hyperplasia *without* atypia

Simple hyperplasia

Complex hyperplasia *with* atypia