A Diagnostic Approach to Abnormal Uterine Bleeding (AUB)

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NO DISCLOSURES

Objectives
Diagnostic Approach to AUB

- Define Key Terms
- Epidemiology
- Classification
- Age- based differential diagnoses
- Diagnostic Modalities
- Treatment

AUB: Key Terms

- Metrorrhagia
  - Intermenstrual bleeding
- Menorrhagia
  - Heavy bleeding
- Polymenorrhea
  - Bleeding more often than every 21 days
- Oligomenorrhea
  - Bleeding occurs less frequently than every 35 days
- Amenorrhea
  - Cessation of bleeding for 6 mos or more in non-menopausal women

AUB: Epidemiology

- Occurs in 9 to 14% (menarche → menopause)
- Accounts for 19.1% of gynecological complaints
- 25% of all gyn surgeries

AUB Classification System: PALM- COEIN Etiologies

PALM: Structural

- Polyp
- Adenomyosis
- Leiomyoma
- Malignancy/hyperplasia

COEIN: Nonstructural

- Coagulopathy
- Ovulatory dysfunction
- Endometrial
- Iatrogenic
- Not yet classified

AUB: Age-Based DDX

13-18

- Normal physiology
- Hormonal contraception
- Pregnancy
- Pelvic infection
- Coagulopathy
  - 19% of hospitalized
- Tumor

19-39

- Pregnancy
- Structural
- Anovulatory cycles
- Hormonal contraception
- Endometrial hyperplasia

40-menopause

- Normal
- Endometrial hyperplasia/CA
- Endometrial atrophy
- Leiomyoma

AUB: Diagnostic Approach

- Anovulatory
  - Irregular or infrequent bleeding
  - Amenorrhea, oligomenorrhea, metrorrhagia
- Ovulatory
  - Regular bleeding but excessive volume or lasts >7 days

AUB: Diagnostic Approach Anovulatory Bleeding

- Can be normal physiology at extremes of reproductive years
  - 2-3 years following menarche
  - Up to 8 years prior to menopause
- In reproductive years: disturbance on hypothalamic-pituitary axis
- 6-10% of anovulatory AUB is from PCOS
- **Hypo**/hyperthyroid
  - Subclinical hyperthyroid
- Uncontrolled DM
- Hyperprolactinemia
- Risk factor for endometrial CA
  - 10-20% diagnosed in premenopausal women

AUB: Diagnostic Approach Anovulatory Bleeding

- PE
  - Obesity, hirsutism, acanthosis nigricans → PCOS
  - Pelvic: external, speculum, bimanual
- HCG
- TSH
- Prolactin
- Endometrial Biopsy
  - <45 if unopposed estrogen (i.e. obesity, PCOS)
  - 45 or greater with suspected anovulatory bleeding
  - Women unresponsive to medical therapy

AUB: Diagnostic Approach Ovulatory Bleeding

- Bleeding disorder
  - 20% of an age with menorrhagia
  - Adolescents specifically vWD
  - Women with: (heme)
    - Heavy bleeding since menarche
    - 1 or more of the following:
      - PPH, surgery-related bleeding, dental work
    - 2 or more of the following:
      - Bruising 1-2x/mo, epistaxis 1-2x/mo, frequent gum bleed, fam hx
- Ultrasound for polyps or leiomyoma
  - TVUS
  - Sonohysterography- superior for detection of intracavitary lesions
  - Hysteroscopy

AUB: Treatment Anovulatory Bleeding

Adolescent/woman with no risk factors for endometrial CA

- OCPs
  - Ethinyl estradiol 35mcg or higher
- Cyclic progestin
  - Medroxyprogesterone acetate 10mg Q day 10-14 days/mo

Adolescent/woman with risk factors for endometrial CA after EMB

- Normal endometrium
  - OCPs vs cyclic progestin
- Hyperplasia without atypia
  - Cyclic progestins
  - Megesterol 40mg
  - Levonorgestrel IUD
    - Repeat EMB in 3-6 mo
    - Refer to GYN if hyperplasia persists
- Hyperplasia w/ atypia
  - Refer to gyn
- Adenocarcinoma
  - Refer to gyn/onc

AUB: Treatment Ovulatory Bleeding

- Levonorgestrel IUD (FDA approved)
- Medroxyprogesterone acetate 10mg Q day 21 days/mo
- Tranexamic acid 650mg tabs, 2 tabs PO TID
  - Antifibrinolytic that prevents activation of plasminogen
  - FDA approved
- NSAIDs (take day 1-5 or until menses ceases)
  - Ibuprofen 600-1,200mg/day
  - Naproxen sodium 550-1,100mg/day
  - Mefenic acid 1,500mg/day

AUB: ACOG Level A

- Sonohysterography is superior to TVUS in detection intracavitary
- Adolescents with menorrhagia + positive screen for bleeding d/o:
  - CBC, PT/PTT (BT not indicated)

AUB: ACOG Level B

- Consider testing for chlamydia, especially if high risk
- Hypo/hyperthyroidism are associated with AUB
  - TSH is reasonable and inexpensive

AUB: ACOG Level C

- EMB first line in women over 45
- PALM-COEIN established to standardize AUB description
- TVUS initial imaging modality
- MRI may be helpful with myomas (large uterus, multiple)
  - Weigh cost vs benefit
- Persistent bleeding with benign path requires further testing
  - nonfocal endometrial pathology
  - structural path
    - Polyp
    - leiomyoma

References

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