Abnormal Uterine Bleeding

Temple Family Medicine Review
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FIGO Classification System

Abnormal Uterine Bleeding
- Heavy Menstrual Bleeding (AUB/HMB)
- Intermenstrual Bleeding (AUB/IMB)

PALM: Structural Causes
- Polyp (AUB-P)
- Adenomyosis (AUB-A)
- Leiomyoma (AUB-L)
- Malignancy and hyperplasia (AUB-M)

COEIN: Nonstructural causes
- Coagulopathy (AUB-C)
- Ovarian dysfunction (AUB-O)
- Endometrial (AUB-E)
- Iatrogenic (AUB-I)
- Not yet classified (AUB-N)

(ACOG #128, 2012; Munro et al, 2012)
AUB/HMB (Heavy Menstrual Bleeding) with Normal Ovulatory Function

Key Concept:
Risk for progression to hyperplasia or cancer <1%

Etiologies

- Nonstructural
  - Coagulopathy (AUB-C)
  - Endometrial factors (AUB-E)
  - Iatrogenic (AUB-I)
  - Hypothyroidism (AUB-E)

- Structural abnormalities
  - Polyps (AUB-P)
  - Fibroids (AUB-L)
  - Adenomyosis (AUB-A)
AUB/HMB With Normal Ovulation: Evaluation

Key Concept
Consider etiologies of coagulopathy in younger women or structural abnormalities in older women when determining evaluation.

Initial labs
- Pregnancy test
- CBC; consider ferritin
- TSH

Imaging if indicated
- TVUS versus SIS

AUB/Intermenstrual Bleeding (IMB)
Due to Ovulatory Dysfunction  (AUB-O)

Key Concept:
Anovulation increases risk for endometrial hyperplasia and cancer

- Etiologies
  - Physiologic
    - Adolescence and perimenopause
    - Pregnancy and lactation
  - Pathologic
    - Hyperandrogenic states (PCOS, etc)
    - Hypo- or hyperthyroidism
    - Hyperprolactinemia

Key Concept:
Effect of chronic unopposed estrogen secretion

- Medications
  - Older antipsychotics
  - Antiepileptics
  - Antidepressants

(Morrell et al, 2008; ACOG #136, 2013)
(Sweet, et al, 2012; Am Fam Physician, 85:35-43.)
Case One

A 17-year-old woman complains of heavy periods since onset of menarche.

- Menarche at age 13
- Menstrual cycles every 26–31 days

What else do you want to know?
Disorders of Hemostasis: Who to Evaluate

Heavy menstrual bleeding since menarche (AUB-C)

One of the following:
- Postpartum hemorrhage
- Surgery-related bleeding complication
- Bleeding associated with dental work

Two or more of the following:
- Easy bruising one–two times/month
- Recurrent gum bleeding with brushing or flossing
- Epistaxis one–two times/month
- Family history of bleeding symptoms

• Testing
  • CBC. Evaluate further if normal
  • Consider testing for von Willebrand factor, ristocetin cofactor, and/or hematology consultation
Case Two

Obese 38-year-old c/o progressively heavy regular periods

- Deliveries uncomplicated
- S/P BTL
- PMHx: uncontrolled DM, HTN, nonsmoker
- No family history of cancer
- OCPs ineffective

- AUB/HMB Heavy Menstrual Bleeding
- Ovulatory or anovulatory?
Structural Disorders

Consider in women (age 30-44) who progressively develop HMB with regular pattern

**Etiologies**
- Polyps: AUB-P
- Adenomyosis: AUB-A
- Leiomyoma: AUB-L
- Imaging options for diagnosing intracavitary lesions

**Diagnosis**
- Transvaginal ultrasound (TVUS)
  - 60%–92% sensitivity and 62%–93% specificity
- Saline infused sonohysterography (SIS)
  - SIS 88%–99% sensitivity and 72%–95% specificity
Transvaginal Ultrasound (TVUS)

Endometrial mass: visualized in both longitudinal and transverse views
Saline Infused Sonohysterography (SIS)
Hormonal Therapies: LNG-IUS

Levonorgestrel-releasing intrauterine system (Mirena®)

- 79%–97% reduction in bleeding
- 20%–44% amenorrhea after first year

Patient satisfaction = surgical ablation or hysterectomy

Only FDA approved contraceptive for Heavy Menstrual Bleeding
Hormonal Therapies: Cyclic

Progestin x 21/30 days
*(shorter course ineffective)*

- Helps stop menorrhagia in short run
- Mirena more effective long term
- Lethaby, Cochrane Database Rev. 2015;CD002126

OCPs—commonly used therapy

- Insufficient evidence to support efficacy for HMB
- Treatment of choice in women with VonWillebrand’s Disease

Larsson et al, 1992; Lethaby et al, 2008; Farquhar et al, 2009;
Non-Hormonal Therapies: NSAIDS

NSAIDS

- Prescription NSAIDs with similar efficacy
- May decrease bleeding by 20%–50%
- Begin first day of menses x 5 days or until menses ceases
  - Ibuprofen: 600-1,200 mg/day
  - Naproxen: 550-1,100 mg/day
  - Mefenamic acid (Ponstel): 1,500 mg/day; $$$
Other Surgical Interventions

**Endometrial ablation**
- Initial costs < hysterectomy
  - Recurrence rate as high as 33%
  - May be optimal for perimenopausal women hoping to avoid hysterectomy
- Effect on future pregnancies understudied

**Hysterectomy**
- Satisfaction >95% but with occasional post-op morbidity/mortality
- May induce earlier menopause by up to 3-5 years
- 38% of women < 40 have unsupported pathology at time of surgery; 38% of women were not offered other options
AUB-O (Anovulation): Evaluation

Key Concept:
Consider tissue sampling, based on risk for endometrial hyperplasia or cancer

Examination:  Obesity, hirsuitism, signs of systemic disease

Past History:  PCOS, history of absent or irregular periods (unopposed estrogen secretion)

Initial labs
- Pregnancy test
- TSH
- Prolactin

Endometrial biopsy with Pipelle if indicated

(ACOG#136, 2013)
Endometrial Biopsy (EMB): Indications

- ≤ 45 years with AUB-O and risks for hyperplasia and cancer
  - No menses > 1 year
  - Obesity
  - PCOS
  - Nulliparity/infertility
  - Hypertension
  - Tamoxifen therapy
  - Family history of colon cancer (Lynch Syndrome)
  - History of irregular menses/AUB-O

- > 45 years with AUB-O without risk factors
  - Atypical glandular cells on Pap smear
AUB-O: Treatment

Goals
- Break pattern of unopposed estrogen.
- Regulate cycles and reduce flow.

Treat
- Adolescents and women ≤ 45 years without additional risk factors: treat empirically
- Women with risk but confirmed normal tissue on EMB
- Use of Mirena results in 96% regression rate for hyperplasia
Endometrial Hyperplasia: Management

Hyperplasia without atypia
- 5% may progress to cancer
- Treatment: progestins
- Reassess with EMB 3–6 mos

Hyperplasia with atypia
- 30% progress to cancer; 42.3% have concomitant cancer
- Refer to gynecology or gyn-oncology

Endometrial adenocarcinoma
- Refer to gynecology or gyn-oncology
Case Four

57-yr-old c/o vaginal spotting

- Post menopausal x 5 yrs
- Past Med Hx: irregular menstrual cycles tx with OCPs, smoker
- Family Hx: father with colon cancer
- Review risk factors for uterine cancer
Postmenopausal Uterine Bleeding

Key Concept:
Postmenopausal bleeding may be a sign of endometrial cancer and needs to be evaluated by TVUS or EMB

• Etiologies
  • Atrophy of uterine lining
  • First 6 months of HRT
  • Polyps or uterine fibroids
  • Hyperplasia
  • Endometrial cancer 10%

vanHanegem, 2011
## Evaluation: Postmenopausal Bleeding

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<th>EMB</th>
<th>TVUS</th>
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| 95% sensitive, 99.5% specific for detecting carcinoma | • Endometrial lining ≤ 4mm  
• 95% sensitive and 47% specific for carcinoma |
| Less successful than in premenopausal women            |                                           |

(van Hanegem et al, 2011; Dijkhuizen et al, 2000)
Transvaginal Ultrasound (TVUS)

8 yrs postmenopausal: normal endometrium

Postmenopausal bleeding: thickened endometrium. EMB: hyperplasia with atypia
Summary of Key Concepts

• **Ovulatory AUB**
  - Low risk for progression to hyperplasia or cancer
  - Consider etiologies of coagulopathy or structural abnormalities
  - For non-structural etiologies, strongly consider LNG-IUS

• **AUB-O**
  - Anovulation increases risk for endometrial hyperplasia and cancer
  - Perform endometrial biopsy at risk
  - Treat with progestin based therapy

• **Postmenopausal Bleeding**
  - May be a sign of endometrial cancer and needs to be evaluated by TVUS or endometrial biopsy