Abnormal Genital Tract Bleeding in Women

Kim Anne Lockart, WHCNP

Definitions

Menorrhagia- Heavy menstrual bleeding (HMB) of a pad or tampon soaked in less than 2 hours

Metrorrhagia- Irregular or prolonged bleeding usually between menses (<24 days or > 38 days). More common to use abnormal uterine bleeding or dysfunctional bleeding.

Menometrorrhagia- Excessive uterine bleeding during and between menses

Look for the pattern
Is this recurrent or frequent?
One time occurrence?
Have her keep a menstrual chart on paper or App

Definitions

Secondary Amenorrhea- No menstrual bleeding for 6 or more months

Oligomenorrhea- Infrequent menstrual bleeding

Irregular menstrual bleeding- Variable pattern of bleeding; skipping or frequent bleeding

Postmenopausal bleeding- Any bleeding that occurs more than one year after stopping menses

Primary Amenorrhea: No menses by age 16 with normal development or by age 13 without secondary sexual characteristics

Look for the pattern
Is this recurrent or frequent?
One time occurrence?
Have her keep a menstrual chart on paper or App

Definitions

Postcoital bleeding- Bleeding occurring only after sex; may be related to cervix or vagina as well as uterine

Anovulatory bleeding- Bleeding not related to cycles and usually not ovulating. Diagnosis of exclusion

Abnormal Uterine bleeding (AUB)/Dysfunctional uterine Bleeding (DUB)- abnormal quantity, duration or frequency

AUB and DUB are used interchangeably and are less specific or descriptive

Anovulatory bleeding is a common cause of irregular, prolonged or heavy bleeding
PALM-COEIN

**AUB Causes**

- Polyps
- Adenomyosis
- Leiomyomas
- Malignancy/Hyperplasia
- Coagulopathy
- Ovulatory Dysfunction
- Endometrial
- Iatrogenic
- Not Yet Classified

*The FIGO recommendations on terminologies and definitions for normal and abnormal uterine bleeding.*


**Hypothalamic-Pituitary-Ovarian Axis**

- Hypothalamus
- Pituitary
- Ovary

**Menstrual Cycle**

- Follicular phase
- Luteal phase

**History**

A detailed history can direct your differential.

Underlying health problems like thyroid disorder may cause menstrual or uterine bleeding changes.

Determine the source of the bleeding.

Look for associated symptoms.

**Infertility; Pregnancy History**

- General History
  - Age
  - Personal or Family History of Thyroid disorder
  - Personal or Family History of Bleeding Disorder
  - Medications
  - Recent Trauma
  - Changes in Bowel or Bladder Function
  - Gallstones
  - Basal Level
  - Mood changes
Menstrual History

Frequency of Bleeding; breakthrough, regular, irregular

Duration; days heavy out of total

Volume of Bleeding (Pad or Tampon soaked every _ hours)
  - Heavy is a soaked pad in < 2 hours or > 8 soaked pads in a day

Change in pattern over what period of time?

Has this happened previously?

Associated symptoms such as pain

Sexually Active? Risk of Pregnancy? Risk of Infection?

Associated symptoms
  - Pain-abdominal or back and severity
  - How well controlled?
  - Medication or other self-treatment?
  - Pelvic pressure
  - Dyspareunia
  - Vaginal discharge
  - Dysmenorrhea
  - Changes in Bowel or Bladder Function
  - Galactorrhea or Breast changes
  - Headaches
  - Mood changes

Physical Exam

Vital Signs

Thyroid enlargement or nodules

Breast exam if symptoms

Abdominal palpation for tenderness or mass

Symptoms of Anemia?

Physical Exam

Pelvic Exam:
  - Identify potential site(s) for bleeding at vulva, vagina, cervix, urethra, anus or perineum
  - Mass, laceration, ulceration, vaginal or cervical discharge, foreign body or friable area
  - Cervical polyp
  - Prolapsed fibroid
  - Size and contour of the uterus
  - Tenderness or pain with palpation or movement
  - Pelvic or adnexal mass
  - Presence and volume of bleeding or clots

Other physical findings

- Uterine malformations
- Exam limited by body habitus

Lab Tests

HCG- ALWAYS exclude pregnancy

CBC with differential

Endocrine Testing as indicated by history or exam:
  - Thyroid function
  - Prolactin
  - FSH/LH
  - Testosterone Free and Total
  - Estradiol (if amenorrhea)

Coagulation testing if a bleeding disorder is suspected

Wet Mount and STD testing if infection suspected

Endometrial Biopsy (proliferative, dysynchronous, hyperplasia with/without atypia)

Pap smear if not recent or visible cervical lesion

A positive pregnancy test with pelvic pain is always an ectopic to be ruled out.

Hyperprolactinemia can be related to a pituitary tumor, medication or excessive breast stimulation. Most accurate if AM draw.

Bleeding disorders should be ruled out if positive history or physical findings.

Consider Cushing Syndrome or Adrenal Hyperplasia if symptomatic.
**Imaging and Evaluation**

**Pelvic Ultrasound**
- Best imaging for uterine fibroids, ovarian cysts, evaluation of the myometrium for adenomyosis and evaluation of the endometrium.

**Saline Infusion Sonography (SIS)**
- Infusion of saline into the endometrial cavity to better identify polyps and changes in the endometrium.

**Hysteroscopy**
- Direct visualization of endometrial cavity for removal of polyps, biopsy and curettage.

**MRI**
- Evaluation of tumors especially with abnormal vascularity.

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**Sites of Bleeding**

**Vulvar lesions** (Herpes, atrophic changes, fissures, ulcerations)

**Vaginal lesions or infections** (Bartholin cyst, trauma or laceration, BV, Trichomoniasis)

**Cervical lesions or infections** (cervicitis, STDs, polyp, fibroid prolapse, cancer)

**Uterine (endometrial polyps, fibroids, endometrial cancer, pregnancy)**

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**Bleeding disorders**

- Von Willebrand disorder
- Immune thrombocytopenia
- Platelet function defect

**Other Causes**

- Disease States: leukemia, liver or renal disease
- Medications: anticoagulants, prescription and nonprescription drugs that impact coagulation or platelet function, and chemotherapeutic agents

**Is there a non-GYN cause of the bleeding?**

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**Bleeding in Adolescents**

- **Amenorrhea**
  - Primary: no menses by age 16
  - Secondary: amenorrhea after onset of menses

- **Irregular Menstrual Bleeding**
  - Anovulatory cycles-common in 1st 12-18 months after menarche
  - Polycystic ovarian syndrome
  - Hypothyroidism
  - Hyperprolactinemia
  - Eating disorders
  - Bleeding related to infection-STI or vulvulinerine
  - Stress
  - Exogenous hormones: OCPs, Nexplanon, progestin IUDs

**Is there normal maturation?**

- Tanner staging
- Changes in Weight
- Risks for STI?
- Pregnancy?
### Bleeding in Adolescents

<table>
<thead>
<tr>
<th>Excessive Menstrual Bleeding</th>
<th>Most common reason is anovulation in up to 50% of cycles. Late menarche is associated with longer period of irregular menses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding disorders</td>
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<tr>
<td>Endocrine disorders</td>
<td></td>
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<tr>
<td>Structural lesions or uterine abnormalities</td>
<td></td>
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<tr>
<td>Intermenstrual Bleeding</td>
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<tr>
<td>Exogenous hormones</td>
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<tr>
<td>Irregular use of birth control</td>
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<tr>
<td>Ectropian</td>
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<td>Cervicitis</td>
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### Bleeding in Reproductive Age Women

<table>
<thead>
<tr>
<th>Pregnancy/Miscarriage</th>
<th>Premenopausal or Postmenopausal?</th>
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</thead>
<tbody>
<tr>
<td>Ovarian dysfunction</td>
<td>Acute or Chronic?</td>
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<tr>
<td>Structural Abnormalities</td>
<td>Precipitating Factors?</td>
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<tr>
<td>Fibroids</td>
<td>Excess abdominal adipose tissue can produce extra estrogen through aromatization</td>
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<tr>
<td>Polyps of cervix or endometrium</td>
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<tr>
<td>Adenomyosis</td>
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<tr>
<td>Uterine Anomalies</td>
<td></td>
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<tr>
<td>Endogenous or Exogenous Hormones</td>
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<tr>
<td>Overweight</td>
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<td>Breakthrough bleeding r/t birth-control</td>
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### Bleeding in Peri & Postmenopausal Women

<table>
<thead>
<tr>
<th>Hormonal fluctuations in perimenopause</th>
<th>Endometrial cancer and Hyperplasia with atypia occurs in 5-10% of postmenopausal bleeding. Always should be ruled out</th>
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</thead>
<tbody>
<tr>
<td>Atrophic changes of the vulva, vagina and uterus</td>
<td>Hyperplasia with or without atypia</td>
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<tr>
<td>Infection or Trauma</td>
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<tr>
<td>Endometrial cancer or hyperplasia</td>
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</table>
Bleeding in Peri & Postmenopausal Women

- Post cancer treatment or radiation
- Adjacent disease
- Fistula from bowel or bladder
- Bleeding from bladder/urethra
- Stimulation from hormone replacement
- Anticoagulant therapy

Unopposed Estrogen?

Management of Bleeding

**Medication**

- Progestins or micronized progesterones
  - Acute-use for 10 days to stop bleeding
  - Recurrent-cyclic for 12-25 days each month
- Birth control pills
  - 35 mcg pills 2-4 x per day decreasing by 1 pill a day
  - High dose estrogens (Premarin x 24 hours) to mature disordered endometrium
- Provera 10-20 mg qd to bid
- Norethindrone 5 mg qd to bid
- Prometrium 100-200 mg at hs
- Megestrol 20-60 mg bid (Pregnancy Category X)
- IV Premarin at ER or Premarin 2.5 mg po 4 x a day for 24 hours

**Non-Medication management**

- Referral for D & C
- Endometrial ablation
- Hysterectomy

Tranexamic acid (antifibrinolytic agent) 1 to 1.5 gm 3-4 x day for 48 hrs

Progestin IUD – Mirena; Liletta

Estrogen vaginal cream for atrophic vagina or cervix with bleeding

Osphena is a SERM that treats vaginal atrophy

For minor bleeding

- Ibuprofen 800 mg 3 x day for 3-5 days
- Naproxen 500 mg bid for 3-5 days

NSAIDs are an antiprostaglandin
When Do I Refer to GYN?

- Non-responsive to conservative management
- Progressive worsening or severe bleeding especially with pain
- Pelvic pain
- Abnormal uterine imaging
- Complex Medical Problems
- Anything you don’t feel comfortable evaluating or treating yourself

Refer to Hematology if Von Willebrand Disorder

When do I send her to the ER?

- Bleeding more than a pad an hour for 2 hours
- Severe pelvic pain
- Suspected ectopic pregnancy

Feel free to call

Kim Anne Lockart, WHCNP
928-606-1289
Kim.anne@q.com

North Country Healthcare
928-213-6125

References

- Dysfunctional Uterine Bleeding in Emergency Medicine Author: Amir Estephan, MD; Chief Editor: Jeter (Jay) Pritchard Taylor, III, MD. Medscape.com; November 7, 2015
- American College of Obstetrics and Gynecology Clinical Guidelines