Vaginal Bleeding

Summary from Rosen's By Alex Cohen

Epidemiology

- About 5% of women aged 30-45 will see a physician for vaginal bleeding annually
- Menorrhagia secondary to anovulation is seen in 10-15% of all gynecologic patients
- About 10% of postmenopausal bleeding is due to endometrial cancer
- Approximately 20% of pregnant patients have vaginal bleeding before the 20th week
- There is vaginal bleeding in 50-80% of ectopic pregnancies
- Vaginal bleeding after 20 weeks occurs in about 4% of pregnancies
    - 30% due to abruption placentae and 20% due to placenta previa

Pathophysiology

- Nonpregnant patients ⚧ Ovulatory, anovulatory, or nonuterine
    - Ovulatory: Single episode of spotting between regular menses
    - Anovulatory: Overgrowth of the endometrium due to estrogens stimulation without progesterone which results in persistent proliferative endometrium
    - Nonuterine: Lesions of the vulva, vagina or cervix as well as uterine tumors, adnexal masses, and urethral, rectal and anal disorders

Differential Diagnosis

- Vaginitis
- Anovulation
- Genital trauma/Foreign body
- Pregnancy
- Ectopic pregnancy
- Exogenous hormone use
- Coagulopathy
- Uterine leiomyoma
- Cervical and endometrial polyps
- Thyroid dysfunction
- Endometrial cancer
- Atrophic vaginitis
- Vulvar, vaginal, cervical tumors
- PCOS/Hemorrhagic cysts
- Urethral furuncles/Infected urethral diverticula
- Rectovaginal fistula

Signs and Symptoms

- The volume, duration, and timing of bleeding must be ascertained
    - Associated symptoms of n/v, abdominal pain, breast tenderness, urinary frequency, and history of trauma are also key
- Must perform vital signs, abdominal and pelvic exams, and in pregnant patients fetal heart tones and fundal height
    - Fetal heart tones below 100 indicate fetal distress
    - After 20 weeks, must perform ultrasound BEFORE pelvic exam
- Beta-HCG is reported as positive when concentration is greater than 20mIU/ml in urine or 10mIU/ml in serum

Work-up

- Most important factor is to determine pregnancy status
    - If pregnant, then obtain bedside transabdominal or transvaginal ultrasound followed by pelvic exam and quantitative B-HCG
    - If not pregnant, perform pelvic exam followed by coagulation studies
- Be sure to also inspect urethra, perineum, and rectoanal areas
- Obtain cultures on speculum exam of the cervix

Empiric Management

- All patients should be resuscitated with oxygen, IV crystalloids, and blood as needed
- Pregnant patients:
    - If viable, consider emergent cesarean section in the OR
    - If non-viable, consider D&C

    - Postpartum hemorrhage can be controlled with Pitocin
    - If bleeding is persistent and life threatening, hysterectomy can be performed
- Non-pregnant:
    - NSAIDs are the mainstay of treatment
    - Unstable patients can be treated with conjugated estrogen 25mg, repeated every 4-6 hours
        - Can use pediatric Foley inserted into cervical os to tamponade if the above is unsuccessful

Disposition

- Patients with persistent symptomatic bleeding, especially with persistent hypotension and low hematocrit should be admitted
- Stable vaginal bleeding can be discharged with close follow-up
- In preadolescents, always rule out abuse before discharge