Chapter 34 – Vaginal Bleeding

Episode Overview:

1) Indicate 12 causes of vaginal bleeding, indicating at which age group each is most common
2) List 6 causes of bleeding in early pregnancy
3) Describe the management of severe third trimester bleeding and post-partum hemorrhage

Wisecracks:

1) List options for managing vaginal bleeding in the non-pregnant patient
2) When would you avoid estrogen products in non-pregnant women with vaginal bleeding

1) List 12 causes of vaginal bleeding, indicating at what age groups each is more common

<table>
<thead>
<tr>
<th>Table 34-2</th>
<th>Differential Diagnoses of Vaginal Bleeding by Age in Descending Order of Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREPUBERTAL</td>
<td>ADOLESCENT</td>
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<tr>
<td>MOST COMMON</td>
<td>Vaginitis</td>
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<tr>
<td></td>
<td>Anovulation</td>
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<td></td>
<td>Genital trauma or foreign bodies</td>
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<td></td>
<td>Coagulopathy (von Willebrand's disease, ITP)</td>
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<tr>
<td>LEAST COMMON</td>
<td>Thyroid dysfunction</td>
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</tbody>
</table>

- **Nonpregnant patients**
  - **Ovulatory**
    - Single episode of spotting in between regular menses
  - **Anovulatory**
    - Causes 90% of DUB
      - Leads to an overgrowth of uterine tissue due to excessive estrogen - due to stress, weight loss, exercise.
      - The H-P-A axis is disrupted.
    - Consider:
      - Fibroids
      - Exogenous hormone use
      - Uterine AVM
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- Non-uterine
  - Need to consider vulva, vault, vagina, forchette, cervix, urethral, rectal, anal, foreign bodies, genital trauma, cervical polyps

- Acute menorrhagia in ADOLESCENTS
  - 20% of cases due to
    - Von-wilbrand’s disease
    - Myeloproliferative disorders (polycythemria vera, CML, thrombocytosis)
    - ITP

- Non uterine causes:
  - Cervix - cancer, polyps, condylomata, OCP use, PID
  - Vagina - lacerations, trauma, tumours,
  - Adnexa - hemorrhagic ovarian cyst, ovarian tumours, PCOS, endometriosis
  - Urinary tract - urethral diverticula, urethral furuncles
  - Anal or rectal causes

2) List 6 causes of bleeding in early pregnancy

- Pregnant patients
  - Before 20 weeks
    - Ectopic
      - Serum BHCG levels
        - False negative rate for
          - Serum < 0.5% (when 10 mIU/mL used)
          - Urine < 1% (when 20 mIU/mL used)
            - Usually 95-100% sensitive and specific for pregnancy
          - The discriminatory level for ectopic pregnancy is 1500-2000 mIU/mL
    - Miscarriage
      - Threatened
      - Inevitable
      - Spontaneous
      - Complete
      - Incomplete
      - Missed
      - Septic
  - Implantation bleeding
  - GI or GU bleeding
  - Trauma
  - Cervical carcinoma
  - Gestational trophoblastic disease
    - Hydatidiform mole or molar pregnancy

3) Describe the management of severe third trimester bleeding and post-partum hemorrhage

Third trimester
  - After 20 weeks
Placental abruption
Placental previa / increta / percreta

Post-partum

- Early
  - Uterine atony
    - Prolonged labour, infection, polyhydramnios, multiparity, induced labour, precipitous labour, magnesium therapy, intrauterine injection
  - Uterine trauma (instrumentation)

- Late
  - Uterine atony
    - Prolonged labour, infection, polyhydramnios, multiparity, induced labour, precipitous labour, magnesium therapy, intrauterine injection
  - Retained foreign body
  - Infection
  - None

WiseCracks:

1) Outline options for managing vaginal bleeding in the non-pregnant patient?

- MOVIE
  - Crystalloids and then RH Negative blood until Rh status known
  - IF blood in abdomen +/- shocky
    - Consult
      - Gen surg
      - Obs gyne
      - Radiology - IR techniques
    - May need hysterectomy, embolization, and determination of other bleeding sources (in trauma - liver, spleen, etc)

- If < 20 weeks pregnant and not unstable:
  - Determine if os if open (use ring locking forceps to see if it is an inevitable miscarriage)
    - Give Rhogam if mother is Rh negative!

NON-pregnant patients

- Treatment:
  - NSAIDS
  - Tranexamic acid 1 g TID x 7 days
  - Premarin (conjugated ESTROGEN) - IV or IM 25 mg and q 6 hrs p.m
    - IF bleeding continues insert foley catheter into cervical os and inflate to tamponade the bleeding
    - Leave in place for 12-24 hrs
  - Birth control pill with at least 35 mcg of estradiol BID until bleeding stops or up to 7 days
2) When would you avoid estrogen products in non-pregnant women with vaginal bleeding?

- Contraindications to estrogen use:
  - Thromboembolic events / strokes
  - Estrogen dependent tumour
  - Active liver disease
  - Pregnancy

3) 7 critical causes of vaginal bleeding NOT to miss!

Critical diagnoses NOT to miss!
1. Ectopic
2. Heterotopic (1:40000 - 1:100 (if on fertility treatment))
3. Miscarriage
4. Placenta previa / accreta
5. Placental abruption
6. Uterine perforation / rupture / trauma
7. Arteriovenous malformation

- MOVIE
- ABCD's and pregnancy test!
- Bedside ultrasound for IUP and free fluid in abdomen
- Then appropriate systemic analysis of possible bleeding causes
  - pregnancy vs. non-pregnancy
  - Anatomic approach

4) BONUS: What’s the incidence of ectopic AND the incidence with an IUD in place? (according to uptodate)

- Ectopic pregnancy in general 2/100 - 2% in GENERAL population
  - But 6-16% among women who come to the ED with first trimester bleeding, and/or pain
- Ectopic pregnancies as a proportion of all pregnancies based on contraceptive method:
  - Mirena IUD 1:2
  - !!(50% of all pregnancies, IF the woman with an IUD gets pregnant)
  - Copper IUD 1:16
  - Pills 0 - 1:20
  - Tubal sterilize opioid receptors in the gut