



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

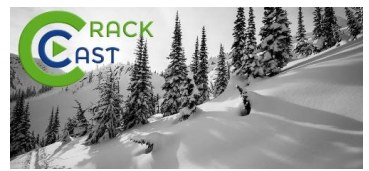
1) List 12 causes of vaginal bleeding, indicating at what age groups each is more common

Table 34-2 Differential Diagnoses of Vaginal Bleeding by Age in Descending Order of Frequency

	PREPUBERTAL	ADOLESCENT	REPRODUCTIVE	PERIMENOPAUSAL	POSTMENOPAUSAL
Most common	Vaginitis	Anovulation	Pregnancy	Anovulation	Endometrial lesions, including cancer (30%)
↓	Anovulation	Pregnancy	Anovulation	Uterine leiomyomas	Exogenous hormone use (30%)
	Genital trauma or foreign bodies	Exogenous hormone use	Exogenous hormone use	Cervical and endometrial polyps	Atrophic vaginitis (30%)
		Coagulopathy (von Willebrand's disease, ITP)	Uterine leiomyomas	Thyroid dysfunction	Other tumor: vulvar, vaginal, cervical (10%)
			Cervical and endometrial polyps		
	Least common		Thyroid dysfunction		

ITP, idiopathic thrombotic purpura.

- 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



- **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-wilibrand's disease
 - Myeloproliferative disorders (polycythemia 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

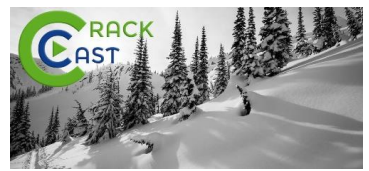
2) List 6 causes of bleeding in early pregnancy

- 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
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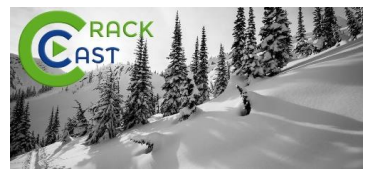
WiseCracks:

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 prn
 - 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
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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