Common Women’s Hematology Cases

Hematology Update

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Objectives

• Discuss cases commonly/typically seen in women’s hematology clinic
Case 1

- A 22 yo woman presents with complaints of fatigue, decreased exercise tolerance, hair loss
  - WBC 5.3 K/mm$^3$
  - Hemoglobin 12.2 g/dL
  - Platelets 400 K/mm$^3$

What do you do next?
Pearl #1

Always check a ferritin in menstruating patients!
Iron deficiency without anemia

- ≥ 20% of menstruating people
- Hgb alone may miss >50% of iron deficiency
- Symptoms
  - Fatigue/decreased productivity
  - “Brain fog”
  - Restless legs
  - Hair loss
Case 2

• A 22 yo woman presents to your clinic for anemia
  – Hemoglobin 10.0 g/dL, MCV 72
  – She reports a history of anemia dating back to age 16
  – She feels her periods are normal

What do you do next?
Pearl #2

Take a (good) menstrual history!
Taking a Menstrual History

- Duration
- Change of protection (heaviest days)
  - Frequency
  - Overnight changes
- “Flooding” and clots
- Iron deficiency
- Regularity (+/- few days)
Normal or Abnormal?

- Average age of menarche: 12.5-12.7 years
- Average age of menopause: 51
- Average cycle length: 28 (21-35) days
- Average duration of menses: 2-7 days
- Median blood loss: 53mL/cycle
Case 2

- A 22 yo woman presents to your clinic for anemia
  - Hemoglobin 10.0 g/dL, MCV 72
  - She changes her pad/tampon q30 minutes
  - She frequently passes clots >1 inch
  - Her ferritin is 6 mcg/L
Pearl #3

Don’t forget to treat HMB!
Hematologic Management of HMB

• **Iron supplementation!**

• Hemostatic agents
  – TXA 1300mg po TID while bleeding

• Hormonal therapy
  – Norethindrone acetate 5 mg daily to TID
  – Cyclic combined pill with estradiol valerate and dienogest (Natazia)
  – Any combined estrogen/progestin pill

• Refer to gynecology
Case 2 – 4 years later

• 26yo with history of HMB returns to clinic
  – Currently 26 weeks pregnant
  – Reports a family hx of VWD
  – OB sent a VWD panel which just resulted:
    • VWF: 188%, VW Activity: 176%, FVIII 200%

How do you interpret these results?
Pregnancy & VWD
Pearl #4

Think about bleeding disorder workup early.
HMB & Bleeding Disorders

• 30% of women will have HMB or AUB
  – ≤ 20% have a bleeding disorder

• ISTH BAT Score can be helpful
Pearl #4 (part 2)

Talk about pregnancy before it happens!
## Pregnancy & VWD

**PPH incidence in known vs. unknown VWD diagnosis.**

<table>
<thead>
<tr>
<th></th>
<th>All deliveries (n = 59)</th>
<th>Known VWD diagnosis (n = 43)</th>
<th>Unknown VWD diagnosis (n = 16)</th>
<th>Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median blood loss, ml (range)</strong></td>
<td>450(200–6000)</td>
<td>450(200–3200)</td>
<td>425(200–6000)</td>
<td></td>
</tr>
<tr>
<td>Primary PPH (&gt;500 ml) %</td>
<td>44.1</td>
<td>37.5</td>
<td>46.5</td>
<td>p = 0.57</td>
</tr>
<tr>
<td>Severe primary PPH (&gt;1000 ml) %</td>
<td>20.3</td>
<td>16.3</td>
<td>31.3</td>
<td>p = 0.28</td>
</tr>
<tr>
<td>Vaginal hematoma</td>
<td>5.1</td>
<td>2.3</td>
<td>12.5</td>
<td>p = 0.18</td>
</tr>
<tr>
<td>Secondary PPH %</td>
<td>11.9</td>
<td>4.7</td>
<td>31.3</td>
<td>p = 0.013</td>
</tr>
<tr>
<td>Blood transfusion %</td>
<td>5.1</td>
<td>-</td>
<td>18.8</td>
<td>p = 0.017</td>
</tr>
</tbody>
</table>
Case 3

- 26yo woman started CHCs for HMB 2 months ago and now has L femoral vein thrombosis.
  - CHCs are stopped
  - Patient is discharged on rivaroxaban

What will happen later this month?
Pearl #5

You don’t have to stop CHCs in anticoagulated patients.
Hormonal Therapy Management

• Discontinuing CHCs → withdrawal bleeding
• Can be worse than prior periods
  – May lead to withholding anticoagulation
  – Could increase risk of recurrent VTE
    • 5-fold increased risk of recurrent VTE with HMB + rivaroxaban
### Table 2. Recurrent VTE during the at-risk period in women with and without concomitant hormonal therapy

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No hormone use</th>
<th>All hormonal therapies</th>
<th>Estrogen-containing therapy</th>
<th>Progestin-only therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Events/patient-years</td>
<td>%/year (95% CI)</td>
<td>Events/patient-years</td>
<td>%/year (95% CI)</td>
</tr>
<tr>
<td>All patients</td>
<td>38/811.0</td>
<td>4.7 (3.3-6.4)</td>
<td>7/187.5</td>
<td>3.7 (1.5-7.7)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;40 years</td>
<td>19/287.7</td>
<td>6.6 (4.0-10.3)</td>
<td>2/107.4</td>
<td>1.9 (0.2-6.7)</td>
</tr>
<tr>
<td>≥40 years</td>
<td>19/523.4</td>
<td>3.6 (2.2-5.7)</td>
<td>5/80.0</td>
<td>6.3 (2.0-14.6)</td>
</tr>
<tr>
<td><strong>Time period after randomization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days 1-30</td>
<td>27/121.0</td>
<td>22.3 (14.7-32.5)</td>
<td>5/28.3</td>
<td>17.7 (5.7-41.2)</td>
</tr>
<tr>
<td>Days 31-90</td>
<td>7/229.9</td>
<td>3.1 (1.2-6.3)</td>
<td>1/56.5</td>
<td>1.8 (0.0-9.9)</td>
</tr>
<tr>
<td>Days 91-180</td>
<td>3/300.1</td>
<td>1.0 (0.2-2.9)</td>
<td>1/73.8</td>
<td>1.4 (0.0-7.6)</td>
</tr>
<tr>
<td>Days 181-end</td>
<td>1/160.0</td>
<td>0.6 (0.0-3.5)</td>
<td>0/28.9</td>
<td>0.0 (0.0-12.8)</td>
</tr>
</tbody>
</table>
Hormonal Therapy Management

• Best to continue CHCs while starting anticoagulation in patients with HMB
• Can transition to an alternative before discontinuing AC
Pearl #5 (Part 2)

Choose (and manage) anticoagulation wisely in menstruating patients.
Choice of Anticoagulant

Proportion of Women Requiring Medical or Surgical Therapy for Uterine Bleeding Within Six Months of Anticoagulant Initiation[9]

Apixaban

Rivaroxaban

Warfarin

= 1 woman treated for HMB

= 1 woman not treated for HMB
Anticoagulation Management

• When starting
  – Don’t forget to repeat CBC + ferritin
  – Education about
    • normal periods
    • risk of HMB on anticoagulation
    • importance of continuous use
    • importance of contraception
Anticoagulation Management

• Follow-up visits
  – changes in periods
  – symptoms of iron deficiency
  – CBC and ferritin check

• Discontinuation visit
  – revisit importance of contraception
  – future pregnancy planning
Questions?
Iron in Pregnancy

• Term pregnancy: 500-800mg maternal iron
• 20% have reserves >500mg
• Ferritin >70 µg/L required
Taking a OB History

- GxPx
  - Term, preterm, abortion, living
- PPH
  - Primary or secondary
- Antepartum bleeding?
- Recurrent loss
- Other complications
  - Preeclampsia, IUGR
  - VTE