Abnormal Uterine Bleeding Case Studies

Case Study 1

Abigail, a 24-year-old female, presents to your office complaining that her menstrual cycles have become a problem. They are now lasting 6-7 days instead of 3-4, and come every 30 days instead of every 26 days. She has no pain, cramping, or vaginal discharge. She has never missed a menstrual cycle. She has not been sexually active for over 6 months.

Her past medical history is remarkable only for severe reflux disease for which she takes daily prilosec.

Q1: The information you want most from her is:

A. How many tampons/pads she uses in a 24-hour period
B. Whether or not she is passing clots
C. Whether or not she is missing work or avoiding social activities because of her menses
D. If she has a family history of fibroids
E. If she has a family history of PCOS

Q2: The most useful set of laboratory tests to order for evaluating Abigail would be:

A. CBC, testosterone level, and Von Willebrand’s screen
B. Ferritin, TSH, pregnancy test
C. VonWillebrand’s screen, ferritin
D. Urine pregnancy test, prolactin, and TSH
E. Ferritin, prolactin, urine pregnancy test

Discussion Points

• Tampon and pad counts are not reliable indicators of actual blood loss
• Questions to ascertain the impact of the bleeding include:
  – Does the bleeding interfere with her sex life?
  – Does she have to leave work or class due to heavy bleeding?
  – Are there things she doesn’t due because of her periods?
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Discussion Points

- Check hemoglobin/hematocrit for anemia and ferritin for iron deficiency
- Rule out pregnancy with a urine test
- Von Willebrand disease is the most common coagulation disorder causing menorrhagia; not usually checked unless there are other signs of bleeding or in an adolescent
- Remember hypothyroidism presents with heavy menses and should always be ruled out

Case Study 1, continued

All laboratory tests return normal. You find out that Abigail is missing work 1-2 days per month and is avoiding social activities during the first three days of her period. She adamantly refuses to consider combination hormonal contraception.

Q3: The best alternative strategy for managing her cycles includes:

A. Reassurance
B. Iron supplementation
C. Tylenol during her menstrual cycles
D. Daily ibuprofen from the beginning of her menstrual cycle through the end of her menses
E. Contraception containing progesterone only

Discussion Points

- The appropriate management depends on the patient’s medical history, risks, and personal choices
- If contraception is desired, either combination contraception or progesterone-only contraception would be indicated
- If she is unable to take estrogen (i.e., clotting risk), a progesterone-only contraception is appropriate
- If a woman does not desire contraception, or doesn’t want to take any hormones, NSAIDs alone may be enough
Case Study 2

Olivia, a 51-year-old female, presents to you with complaints of heavy menstrual bleeding. She complains of 6 weeks of “bleeding all the time”. She cannot be more specific about her menstrual bleeding pattern. She is fatigued. On further questioning, she endorses increased sweating, palpitations, and insomnia.

Q4. Labs that would be most helpful include:

A. TSH, ferritin, and FSH
B. Urine pregnancy test, ferritin, and TSH
C. FSH and urine pregnancy test
D. FSH, LH and estradiol
E. FSH, LH, and TSH

Discussion Points

- Any woman with a history of abnormal menses should have a urine pregnancy test
- Check ferritin for iron deficiency and as a means to quantify the bleeding
- Check TSH for hypothyroidism
- In the perimenopause (which would be the case with this woman), the FSH and estradiol levels fluctuate from month to month and would not offer any information beyond the clinical scenario

Q5. You conclude that Olivia is perimenopausal. Which of the following would make you MOST likely to recommend that she undergo an endometrial aspirate to rule out endometrial carcinoma as an etiology of her erratic bleeding?

A. Her age
B. A long history of oral contraceptive use
C. A history of polycystic ovarian syndrome with anovulatory cycles
D. A history of fibroids
E. The fact that she is obese
Discussion Points

- Late consequences of Polycystic Ovarian Syndrome include endometrial cancer due to anovulatory cycles and prolonged exposure to unopposed estrogen
- Age is certainly a risk factor for endometrial cancer; above 40 increases the risk but in this case is not the MOST worrisome feature
- The same is true for obesity
- Fibroids confer no increased risk; OCP use is actually protective

Q6. Appropriate management for Olivia’s symptoms of abnormal bleeding in the perimenstrual time period include all EXCEPT:

A. Combination hormonal contraception
B. Combination postmenopausal hormone therapy with estradiol and medroxyprogesterone acetate
C. Intermittent medroxyprogesterone acetate
D. Mirena IUD

Discussion Points

- A combined estrogen/progestin contraceptive such as the pill, patch, or intravaginal ring will provide enough hormone to shut down the ovaries and thus control the bleeding by regulating the cycle
- Hormone therapy in a patient who is still intermittently ovulating does not suppress ovarian function; thus HT plus normal cycling may actually make perimenopausal bleeding worse
- Levonorgestrel (Mirena) IUD and intermittent medroxyprogesterone acetate will thin the uterine lining and thus diminish bleeding

Case Study 3

Susan, a 24-year-old female, presents to your office with a longstanding history of irregular menstrual cycles. She can go months at a time without a menstrual cycle and then will bleed for 20 days.

Q7. You are considering a diagnosis of polycystic ovarian syndrome. Which would be most helpful in making the diagnosis?

A. A family history of PCOS
B. The knowledge that her menstrual cycles became regular on combination hormonal contraception
C. A history of infertility
D. A history of acne and hirsutism
E. The fact that she is obese
Q7. You are considering a diagnosis of polycystic ovarian syndrome. Which would be most helpful in making the diagnosis?

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C. A history of infertility
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Diagnosis of PCOS

Rotterdam Criteria: Two of Three (2003)

- Clinical or biochemical evidence of hyperandrogenism (so in this case her acne and hirsutism meet this criteria for diagnosis along with irregular menstrual cycles)
- Oligo-ovulation or anovulation (<9 periods/year)
- Presence of polycystic ovaries on pelvic ultrasound

NOTE: Does NOT include obesity or insulin resistance or family history; everyone will regulate their menstrual cycles on OCPs

Q8. You make a diagnosis of PCOS in Susan based on an elevated serum testosterone level. You recommend:

A. Starting oral contraceptives
B. Starting metformin and oral contraceptives
C. Starting metformin alone
D. Starting spironolactone
E. Mirena IUD

Discussion Points

- Combination contraception is first-line treatment
- Susan needs contraception if she does not desire pregnancy. OCPs provide endometrial protection plus contraception. OCPs also increase SHBG and thus decrease signs of excess androgen.
- Metformin is FDA-approved for type 2 diabetes
  - It has been used off-label to treat the following in PCOS:
    - Oligomenorrhea (combination estrogen-progestin contraceptives are first-line treatment)
    - Obesity
    - Hirsutism - combination estrogen-progestin contraceptives are first-line treatment (2008 Endocrine Society Guidelines)
    - Prevention of type 2 diabetes mellitus (not for women with normal glucose tolerance)

Case Study 3, continued

After regulating her menstrual cycles and managing her hirsutism, you begin thinking about Susan’s overall health and long-term risks of disease. She is about 20 pounds overweight, so first and foremost you recommend weight loss.
Q9. Other recommendations, at a minimum, that you would make include:

A. Fasting lipid profile
B. Fasting lipid profile and a hemoglobin A1C
C. Fasting lipid profile and a sleep study to rule out sleep apnea
D. Fasting lipid profile and a pelvic ultrasound to evaluate endometrial lining thickness
E. Nothing other than weight loss at this time

Discussion Points

• Screen all women with PCOS for the metabolic syndrome and diabetes, which is especially important in this patient since she is overweight
  – Need a fasting lipid profile to screen for the metabolic syndrome
  – Screen for diabetes with either a GTT or a hemoglobin A1C; a fasting glucose alone is not enough
• It’s a good idea to ask about symptoms of sleep apnea even in women with normal BMIs
• No need to check endometrial lining in a woman this young