Educational Topic 54: Endometrial Hyperplasia and Carcinoma

Rationale: Endometrial carcinoma is the most common gynecologic malignancy. Early recognition and proper evaluation of endometrial hyperplasia and cancer can reduce morbidity and mortality.

Intended Learning Outcomes:

A student should be able to:

- List the risk factors for endometrial hyperplasia/cancer
- Describe the symptoms and physical findings with endometrial hyperplasia/cancer
- Outline the causes, diagnosis and management of postmenopausal bleeding

TEACHING CASE

CASE: A 56 year-old nulligravid woman presents to the clinic with complaints of intermittent vaginal bleeding. She went through menopause 2 years ago and had no vaginal bleeding until 6 months ago when she had a three day episode of light bleeding. Since that time, she has had another 3 such episodes. Past medical history is remarkable for well-controlled hypertension, depression and “borderline” diabetes which is poorly controlled with diet alone. She never used oral contraceptives but was unable to become pregnant. She has had a laparoscopic cholecystectomy. She takes lisinopril and sertraline. Her family history is non-contributory. On examination, she has normal vital signs, and weighs 247 pounds. Her heart, lung and abdominal exams are normal. On pelvic examination, she has normal external genitalia, vagina and cervix. The bimanual exam is difficult secondary to the patient’s habitus, but the uterus feels slightly enlarged and no adnexal masses are palpable.

COMPETENCY-BASED DISCUSSION & KEY TEACHING POINTS:
Competencies addressed:

- Patient Care
- Medical Knowledge
- Systems-Based Practice
1. What is your differential diagnosis for this patient?
   - The most common causes of post-menopausal bleeding are atrophy of the endometrium (60-80%), hormone therapy (15 – 25%), endometrial cancer (10 – 15%), polyps (2- 12%), and hyperplasia (5 – 10%).
   - Postmenopausal bleeding or discharge accounts for the presenting symptom in 80-90% of women with endometrial cancer.

2. What is the etiology of endometrial cancer?
   - Excess of endogenous or exogenous estrogen unopposed by progesterone leading initially to endometrial hyperplasia
   - Continued unopposed estrogen can lead to the development of complex hyperplasia with atypia, and ultimately endometrial carcinoma

3. What risk factors does this patient have for endometrial carcinoma?
   - Obesity
   - Nulliparity
   - Late age at menopause, early menarche, and history of irregular menstruation often related to anovulatory cycles
   - "Metabolic Syndrome": Diabetes, hypertension and history of gallbladder disease
   - Other risk factors, that this patient does not have, include the use of menopausal estrogens and tamoxifen, and a family history of genetically-linked cancers such as hereditary colon cancer and ovarian cancer (Lynch Syndrome or HNPCC – hereditary nonpolyposis colorectal cancer), and estrogen-secreting ovarian tumors (granulosa cell tumor)

4. What are the next steps in the diagnostic work-up of this patient?
   - Any history of vaginal bleeding requires a thorough history, physical/pelvic examination, and assessment of the endometrium. This is ideally done via office endometrial sampling as part of the initial work-up.
   - The use of pelvic transvaginal ultrasound (specifically saline infusion sonography) can provide useful information as to the presence of any structural changes (polyps, myomas, endometrial thickening), and for which a diagnosis of endometrial cancer would be less likely if the endometrial thickness is < 5 mm.
   - If the office endometrial biopsy is negative, and the endometrium is 5mm or greater, a further evaluation is warranted.

5. An office endometrial biopsy revealed endometrial adenocarcinoma. How would you manage this patient?
   - Endometrial cancer is best managed by a gynecologic oncologist. Pre-operative work-up would include a complete physical exam and CXR as staging is primarily surgical
   - Intra-operatively, staging procedures would include: TAH/BSO, with possible lymph node dissection
   - Post-operatively, adjuvant therapy may include radiation (external pelvic/aortic, vaginal brachytherapy), chemotherapy, or hormonal therapy
   - Non-surgical management is sometimes chosen by nulliparous women who desire future fertility, and by women with significant major co-morbidities for which surgery is not an option. These treatment strategies may include use of high dose progestins.
REFERENCES

