UNIT 4: REPRODUCTIVE ENDOCRINOLOGY, INFERTILITY & RELATED TOPICS

Educational Topic 47: Menopause

Rationale: Women may spend much of their lives in the postmenopausal years. Physicians should understand the physical and emotional changes caused by menopause.

Intended Learning Outcomes:

A student should be able to:

- Define menopause and describe changes in the hypothalamic-pituitary-ovarian axis associated with perimenopause/menopause
- Describe symptoms and physical exam findings related to perimenopause/menopause
- Discuss management options for patients with perimenopause/menopausal symptoms
- Counsel patients regarding the menopausal transition
- Discuss long-term changes associated with menopause

TEACHING CASE

CASE: A 53-year-old, G3P3 woman, whose last menstrual period was 4 months ago presents to the office with hot flushes, emotional lability, and insomnia. She experiences hot flushes 2-3 times per day and occasionally at night. She has been having trouble sleeping and is extremely fatigued. Since age 14, her periods have been regular until 2 years ago, when they began to space out to every 2-3 months. She is sexually active and recently has noted some dyspareunia. The patient rarely exercises. She smokes 2 packs of cigarettes a day and drinks alcohol socially. She recently started taking a soy supplement. She does not have any pertinent gynecological, medical or surgical history. Her family history is significant for her mother sustaining a hip fracture at age 60 and a sister with breast cancer and high cholesterol. On examination, she has normal vital signs. She is 5’4” tall and weighs 123 lbs. On pelvic examination, she has decreased vaginal rugae and a pale, small cervix. No masses or tenderness are palpated on bimanual exam.

COMPETENCY-BASED DISCUSSION & KEY TEACHING POINTS:

Competencies addressed:
- Patient Care
- Medical Knowledge
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice
1. What are the symptoms of perimenopause and menopause?
   - Hypoestrogenism is the basis for the common changes of menopause.
   - The common signs and symptoms of menopause include amenorrhea (of 12 months duration), hot flashes, memory changes, sleep difficulty, decreased libido, dyspareunia, urinary symptoms, breast changes.

2. How do you make the diagnosis of menopause?
   - Menopause is the permanent cessation of menses and usually occurs between the ages of 50 and 55, with an average of 50-52 years.
   - The definition of menopause is the absence of menses for 12 consecutive months. It is, therefore, a retrospective diagnosis.
   - Perimenopausal symptoms usually begin 3 to 5 years before amenorrhea or postmenopausal levels of hormones.

3. What are the patient’s risk factors for osteoporosis?
   - This patient’s risk factors include menopause, family history of osteoporosis, cigarette smoking, and sedentary lifestyle.
   - Additional risk factors for discussion include age at menopause or oophorectomy, white or Asian origin, small body frame or low BMI, high risk for osteoporosis related fracture per FRAX tool, vitamin D3 deficiency, poor calcium intake, alcohol and caffeine intake, and corticosteroid use.

4. How do you diagnose and treat atrophic vaginitis?
   - Patients commonly have vaginal dryness, vulvar irritation, pruritus, and dyspareunia. Associated urinary symptoms may be present.
   - Examination shows vulvar erythema. Excoriation may be present. Loss of vaginal rugae, a pale vaginal mucosa, with patches of erythema and even superficial blood vessels are consistent with atrophy.
   - The pale or yellow discharge has a pH of 5.5 or higher.
   - Basal cells replace superficial vaginal epithelial cells and can be seen on a saline wet prep or Pap test.
   - Treatment is topical estrogen (allow 4 to 6 weeks for symptomatic relief).

5. How do you counsel a patient regarding estrogen and alternative therapies?
   - Risks and benefits of therapy should be reviewed (WHI and other studies).
   - Contraindications should be discussed.
   - Treatment options for menopausal symptoms and osteoporosis should be outlined.
   - Bio-identical (compounded) hormones do not have an inherent advantage over standard therapies and may vary in their potencies.
   - Micronized progesterone and estradiol are bio-identical by definition.
   - Any patient on systemic HT with an intact uterus needs a progestogen.
   - Transdermal estrogen administration is preferable due to a beneficial effect on lipid balance and thromboembolism risk.
   - Lifestyle modifications including smoking cessation should be stressed.
   - The importance of evaluating any postmenopausal bleeding should be discussed.
   - Acknowledge frequent use of complementary and alternative treatments.
   - SSRI antidepressants can be used as an alternative in women who are not candidates for HT.
Various herbal supplements have been used for treatment of hot flashes, though they have not been shown to be as effective as HT in placebo-controlled studies and concerns about safety have also been raised.

6. What laboratory and diagnostic tests would you order for this patient?

- Laboratory and diagnostic tests should focus on the patient’s history and symptoms, as well as preventive screening. For example, a TSH and lipid panel is appropriate given her fatigue and family history.
- General health maintenance/screening test guidelines (i.e. colonoscopy at age 50, bone density at age 65, etc.) should be discussed. Tests include a mammogram, bone density (given patient’s smoking and family history of fracture), colonoscopy.
- Discuss new cervical cytology screening recommendations.

REFERENCES
