Restarting the Menopause Discussion: From Confusion to Clarity  
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Overview: The purpose of this presentation is to describe and identify the serious health issues of menopause, effectively counsel women on treatment or management of vasomotor symptoms (via non-hormonal and hormonal options), describe and identify common symptoms experienced by women with vulvar vaginal atrophy, develop a step-wise management plan for treatment of vulvar vaginal atrophy, and identify sexual problems at midlife and effectively counsel women about treatment options.

Dr. Kamel is an active member of the Northern American Menopause Society and her areas of special interest include preventative health care strategies for women of all ages, with a specialized focus on menopause, one health/densitometry, and cardiovascular health.

Menopausal Symptoms and Signs:
Classic Symptoms
- Change in menstrual cycle pattern
- Vasomotor symptoms (including night sweats)
- Vulvovaginal symptoms, dyspareunia

Other symptoms sometimes associated with menopause
- Sleep disturbances besides night sweats
- Cognitive concerns (memory, concentration)
- Psychological symptoms (depression, anxiety, moodiness)

Hot Flashes: Vasomotor Symptoms most commonly manifest themselves in the form of hot flashes. Hot flashes are recurrent, transient episodes of flushing accompanied by a sensation of warmth to intense heat on the upper body and face. Approximately 75% of perimenopausal women in the United States experience hot flashes and is severe for up to 15% of these women. While the persistence of hot flashes varies in frequency and intensity, they may be more severe for women who smoke.
Factors Contributing to Hot Flashes:

- Warm environment, hot drinks, spicy food, stress, higher BMI, cigarette smoking, alcohol
- SERMs, SSRIs, and aromatase inhibitors
- Disease conditions including thyroid disease, infection, leukemia, pancreatic tumors, autoimmune disorders, and anxiety

Treatment options for hot flashes range from lifestyle changes to hormone therapies. Some simple lifestyle choices, such as healthy eating, regular exercise, avoidance of hot flash triggers, and employing relaxation techniques will abate hot flash symptoms for many women. Alternatively, Estrogen Therapy with or without progestogen is the most effective treatment of menopause-related vasomotor symptoms.

Sleep Disturbances: Peri- and postmenopausal women have been found to sleep less, have more frequent insomnia, and are more likely to use prescription sleeping aids. The cause of such sleep disturbances may be attributed to a myriad of factors including general aging effects, sleep-related disorders, stress, or ovarian hormone changes. Treating sleep disturbances with either behavioral or drug therapies depend on the severity of the sleep disturbance, the context of the sleep problem, and the severity of daytime ramifications.

Cognitive Changes During Menopause: There is evidence that psychomotor speed, and to a lesser extent, verbal memory can decline slightly in perimenopause, yet any transient issue with cognition appears to resolve after menopause. While evidence is mixed on the effect of hormone therapy on cognition at the time of menopause, certain forms of progesins, particularly medroxy-progesterone acetate, can lead to decline in memory. The WHI Memory Study reported an increase in dementia with hormone therapy use at ages 65-79, and therefore hormone therapy is not yet recommended at any age for preventing or treating cognitive aging or dementia.

Despite the research reflecting negative cognition consequences with the use of hormone therapy, hormone therapy may have a positive effect on verbal memory. Hormone therapy may have a significant neuroprotective effect after early surgical menopause and may protect semantic memory and global cognition. More research needs to be done in this area, to better understand the links between hormone therapy and cognition.

Cardiovascular Disease: Cardiovascular disease is the second leading cause of death among US women between the ages of 45-64, and is the leading cause of death for women over 65. Shockingly, 64% of women who died suddenly of CVD had no previous symptoms, and CVD claims more female lives than all forms of cancer combined. Factors that lead to CVD prevention include lipid modification, glucose lowering, lifestyle intervention, and blood pressure lowering. Estrogen therapy may reduce CHD and coronary artery calcification risk when initiated in younger and more recently postmenopausal women without a uterus, though currently hormone therapy is not recommended for coronary protection in women of any age.
**Vaginal Symptoms During Menopause:** Symptoms such as vaginal dryness, vulvovaginal irritation/itching, and dyspareunia are experienced by an estimated 10-40% of postmenopausal women. Unlike vasomotor symptoms, which abate over time, vaginal atrophy is typically progressive and unlikely to resolve on its own. Treatments include regular sexual activity, lubricants and moisturizers, and local vaginal estrogen. Hormonal treatment has been proven to restore vaginal blood flow, decrease vaginal pH, and improve the thickness and elasticity of volvovaginal tissue. Ospemifene (Ophena) is the newest option for vaginal atrophy and is a selective estrogen receptor modulator (SERM).

**Sexual Health During Menopause:** Sexual issues generally increase with aging, and sexual complaints peak during midlife (ages 45-64). Decreased estrogen causes a decline in vaginal lubrication and elasticity, while decreased testosterone may contribute to a decline in sexual desire and sensation, two potential causes of sexual dissatisfaction. Many women report disappointment that they no longer desire to initiate sexual activity and voice a sense of loss with their decreased desire, responsiveness, and sexual pleasure. Loss of sexual well-being can lead to depression, dissatisfaction with home life, dissatisfaction with emotional and physical relationships with a sexual partner, and stress, therefore addressing this issue is imperative for patients’ health.

While hormone therapy may not improve sexual desire (unless vaginal dryness, dyspareunia, or bothersome hot flashes are part of the problem, HT will improve sleep (which decreases fatigue), enhances skin sensation, and increases vaginal lubrication and elasticity. Alternatively, testosterone therapy may increase sexual desire, arousal, and orgasm, while also increasing bone mineral density. No testosterone therapy is approved for these purposes in North America, but the research window in this area is open for investigation.

**Hormone Therapy:** Hormone therapy (HT) is the only pharmacologic therapy government approved in the US and Canada for treating menopausal symptoms. HT encompasses both estrogen-alone and estrogen-progestogen therapies

- **Estrogen therapy (ET):** Unopposed estrogen is prescribed both a) systemically for women who do not have a uterus, and b) locally in very low doses for any woman with vaginal symptoms
- **Estrogen-progestogen therapy (EPT):** Progestogen is added to ET to protect women with a uterus against endometrial cancer, which can be caused by estrogen alone
- **Bioidentical hormone therapy (BHT):** Consists of hormone chemically identical or very similar to those made in the body. Available from two sources: 1) FDA-approved and tested; 2) unapproved and untested from compounding pharmacies

**Alternatives to Hormone Therapy:** Non-hormonal prescription drugs (off-label use):
- Antidepressant
  - SSRIs: fluoxetine, paroxetine, escitalopram
  - SNRIs: venlafaxine and desvenlafaxine
- Hypnotic
  - Eszopiclone
- Anticonvulsant
  - Gabapentin
- Antihypertensive
  - Clonidine
- Neuropathic pain drug
  - Pregabalin

Other alternatives to hormone therapy include complementary and alternative medicine such as soy isoflavones, traditional Chinese medicine, and herbs. Furthermore, over-the-counter hormones (dietary supplements) such as topical progesterone and melatonin are used as HT alternatives.

**EPT and Breast Cancer:** Diagnosis of breast cancer increases with EPT use beyond 3-5 years. It is unclear whether EPT risk differs between continuous and sequential progestogen. EPT (and to a lesser extent, ET) increase breast cell proliferation, breast pain, mammographic density, repeat mammograms, and breast biopsies. Increased breast cancer diagnosis declined 3 years post EPT cessation. In a study, breast cancer mortality was higher in women assigned to EPT than in those assigned to a placebo. Women starting EPT shortly after menopause experienced increased breast cancer risk, but those with a gap of time greater than 5 years did not.