Chapter

4

Effect of Menopause on Body Tissues

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1. Older skin is predominantly adversely affected by all the following factors except:
   - **A.** Chronological aging
   - **B.** Vitamin E therapy
   - **C.** Estrogen deficiency
   - **D.** Photoaging
2. All of the following skin changes are in sequence to menopause except:
   - **A.** Hyperpigmentation
   - **B.** Increase in sebaceous gland secration
   - **C.** Loss of elasticity
   - **D.** Diminished blood supply
3. The strongest predictor of coronary heart disease in a woman is:
   - **A.** ↑LDL cholesterol
   - **B.** ↓VLDL cholesterol
   - **C.** ↓CRP levels
   - **D.** ↓HDL cholesterol
4. Possible explanation for dry eye syndrome of menopause is:
   - **A.** Lack of estrogen
   - **B.** Fall of systemic androgen levels
   - **C.** Erratic levels of estrogen
   - **D.** None of the above
5. Osteoporosis is a skeletal disease characterized by:
   - **A.** Deterioration of microarchitecture of bone
   - **B.** Low bone mass
   - **C.** Increased bone fragility
   - **D.** All of the above
6. Osteoporosis is also called:
   - **A.** Silent epidemic
   - **B.** Osteopesia
   - **C.** Osteogesia
   - **D.** All of above
7. Bone loss per year in postmenopausal osteoporosis (rapid loosers Type 1) is:
   - **A.** 1.6%
   - **B.** 1.2%
   - **C.** 6.0%
   - **D.** 3.5%
8. The Potential for primary prevention of Alzheimer's disease by estrogen therapy is applicable in which stage of menopause?
   - **A.** Very early in the post menopause
   - **B.** After 5 years
   - **C.** After 10 years
   - **D.** After 20 years
9. Stage +2 as per STRAW classification denotes:
   - **A.** Early reproductive period
   - **B.** Early menopausal transition
   - **C.** Late postmenopause
   - **D.** Late reproductive period

D. Newborn ovary Homobox gene [NOBOX 7q25](early folliculogenesis)
E. All of the above

8. All of the following gene perturbations are associated with premature ovarian insufficiency except:
A. ER and gene polymorphism
B. FMR – 1 permutation on X chromosome
C. INHA 769
D. PGRMC – 1

9. Which of the following studies are currently being used to reveal loci not predicted by candidate genes for studying gene perturbations for premature menopause:
A. SWAN
B. MWS
C. GWAS
D. NHS

10. Which of the following poly glandular autoimmune diseases can be found in some women with premature ovarian insufficiency:
A. Autoimmune hypothyroidism
B. Diabetes mellitus
C. Adrenal insufficiency
D. All of the above

11. All of the following are secondary causes of ovarian insufficiency except:
A. Chemotherapy and radiotherapy
B. Bilateral oophorectomy
C. Uterine artery embolization
D. FMR 1 premutations

12. All of the following are primary causes of premature ovarian insufficiency except:
A. Chromosome abnormalities
B. Uterine artery embolization
C. Enzyme deficiencies
D. Autoimmune diseases

13. Diagnostic usefulness of which of the following investigation is not proven for routine use to investigate the cases of premature ovarian insufficiency:
A. AMH
B. Inhibin – B
C. Ovarian biopsy
D. Chromosomal analysis for women younger than 30 years

14. Which of the following investigations are indicated in cases of premature ovarian insufficiency:
A. Hormone analysis including: FSH, LH, estradiol, AMH, inhibin–B, prolactin
B. Autoimmune screen for poly endocrinopathies
C. Pelvic and breast ultrasound
D. All of the above
E. None of the above

15. Which of the following is only an optional investigation in patients with premature ovarian insufficiency:
A. Screen for autoimmune polyendocrinopathies
B. Pelvic and breast ultrasound
C. Dual X-ray absorptiometry
D. Chromosome analysis for women younger than 30 years

16. All of the following are true for therapeutic options of premature ovarian insufficiency except:
A. They need higher doses of estrogens compared to women over 40 years old.
B. The aim is to achieve the typical mean serum estradiol levels of approximately 400 mg/ml.
C. Recommended estrogen doses are 17 β estradiol 2 mg/ml or 1.25 mg conjugated quine estrogen or transdermal estradiol 75–100 μg/day or μgm ethinylestradiol.
D. Micronized progesterone can be administered as cyclic regimen or as a continuous regimen of 100 mg per day.

C. Gabapentin
D. Venlafaxine

28. What herbal therapies have been shown to be effective for treating menopausal hot flashes?
A. Phytoestrogens
B. Black cohosh
C. Red clover
D. All of the above

29. Mrs X 49 years old, suffering from severe vaginal dryness. She gives family history of MI to mother at 65 years of age and recently diagnosed breast cancer to her sister. All of the following would be effective treatment regimens for except.
A. 10 mcg intravaginal estrogen ring (replaced every 3 months)
B. Intravaginal 25 mcg estrogen tablet, used daily for 2 weeks and then twice per week
C. Vaginal moisturizer applied daily every 3 days
D. Vaginal lubricant applied prior to intercourse

30. Women who are going through menopause should take:
A. Hormone therapy
B. Estrogen therapy
C. Bioidentical hormone therapy
D. Tailored therapy based on symptoms and medical history

31. The most accurate test to determine if a woman is perimenopausal is:
A. Follicle stimulating hormone (FSH) blood levels
B. Complete blood count
C. S. Progesterone levels
D. None of the above

32. The main metabolite of brain norepinephrine, implicated for hot flushes:
A. MHPG (3 methoxy – 4 hydroxyphenylgycol)
B. POMC (Pro-opiomelanocortin)
C. Opioids
D. Tachykinins

33. In symptomatic women with hot flushes, following would provoke hot flushes:
A. Yohimbine (α 2 adrenergic antagonist)
B. Clonidine (α 2 adrenergic agonist)
C. Reserpine
D. All of the above

34. Regarding estrogen and CAD all are true except:
A. In the presence of atherosclerosis estrogen may not be able to increase the activity of nitric oxide
B. Estrogens though have beneficial effects over lipids, yet short-term improvement in lipids are not able to affect coronary lesions when they are extensive
C. Transdermal estrogen is not preferred in high-risk patients having metabolic syndrome with enhanced CVS risk
D. Oral administration of estrogen increases C-reactive proteins and it may be hazardous in women with CAD

35. More common presentations of CAD in women are:
A. Women presenting at later age than men
B. In women, typical symptoms of angina are less common presentation of CAD
C. Women may present with shoulder or jaw pain, dyspnoea or nausea
D. Suffocating type of chest pain with sweating and dyspnoea
E. All of the above

36. All of the following are risk factors for Alzheimer's disease except:
A. Advancing age
B. Genetic

C. 70 %
D. 80%

27. As per criteria of texture of endometrium, expectant management in postmenopausal bleeding can be offered to patients with (Sheikh et al 2000):
A. Homogenous endometrium which is 6 mm thick or less
B. Heterogenous endometrium which is 6 mm thick or less.
C. Mixed echogenicity of endometrium
D. None of the above

28. Ovarian volume in the 1st menopausal year is:
A. 5+/- 2 ml
B. 3 ml
C. 8.6. +/ - 2.3 ml
D. 4 ml

29. Endometrial atrophy in menopause and appears on the ultrasound as:
A. Irregular, rugged echogenicity
B. Pencil-line, echogenicity
C. Hair-line echogenicity
D. Mixed thick (15 mm) echogenicity

30. All adnexal masses are ovarian in origin—True or False.
A. True
B. False
C. Partly true
D. Partly false

31. Surgical evaluation is warranted in pelvic masses with:
A. Abnormal vascularity > 50 mm in size and rising Ca 125
B. Normal vascularity < 50 mm
C. Normal vascularity < 30 mm
D. None of the above

32. In asymptomatic postmenopausal women if the endometrial thickness is 3 mm then next step would be :
A. TVS every 6 months
B. Routine ultrasound annually
C. Endometrial aspiration
D. Hysteroscopy

33. Factors affecting endometrial thickness on sonography in menopause are:
A. Time since menopause
B. Hormone therapy
C. Tamoxifene therapy for ca breast
D. Any focal lesion
E. All of the above

Answer Key

1. A	7. D	13. D	19. C	25. C	31. A
2. A	8. E	14. C	20. F	26. D	32. B
3. D	9. B	15. C	21. A	27. A	33. E
4. A	10. D	16. A	22. A	28. B	
5. B	11. D	17. B	23. B	29. B	
6. D	12. A	18. D	24. A	30. B	

Explanations

5. **B** POI is a spectrum disorder and is a continuum of impaired ovarian function. We define occult POI as impaired ovarian responsiveness to exogenous or endogenous gonadotropin stimulation despite the presence of regular and predictable ovulatory menstrual cycles. Overt POI refers to the presence of irregular menses, elevated serum gonadotropins, and reduced fertility. Gonadotropins will be fluctuating.
6. **D** FSH is not necessary, AMH also not necessary if fertility is not an issue. Thyroid disorders are more common at this age hence TSH is recommended.