

Week 25 Quiz

Questions - 26

Q.1) Yellow dots may be seen in androgenetic alopecia in women. Which region of the scalp are they especially common in?

- A. ☐ frontal scalp
- B. ☐ mid-scalp
- C. ☐ vertex
- D. ☐ occipital scalp

Q.2) What proportion of white women over 70 years of age show evidence of female pattern hair loss?

- A. ☐ 5%-10%
- B. ☐ 15%-20%
- C. ☐ 25-30%
- D. ☐ 40-60%

Q.3) What proportion of Asian women over 70 years of age show evidence of female pattern hair loss?

- A. ☐ 5%-10%
- B. ☐ 15%-20%
- C. ☐ 25-30%
- D. ☐ 40-60%

Q.4) What is the first sign of puberty in girls?

- A. ☐ growth spurt

- B. ☐ breast buds
- C. ☐ menstruation (menarche)
- D. ☐ none of the above

Q.5) How long (on average) after development of breast buds does it generally take before the time of the very first menstrual cycle (menarche)?

- A. ☐ 1 months
- B. ☐ 3 months
- C. ☐ 6 months
- D. ☐ 2 years

Q.6) Which of the following parameters or entities get smaller (are reduced) in regions of the scalp affected by androgenetic alopecia?

- A. ☐ duration of anagen phase
- B. ☐ terminal to vellus hair ratio
- C. ☐ size of the dermal papillae
- D. ☐ all of the above get smaller in regions of the scalp affected by androgenetic alopecia

Q.7) The androgen receptor gene (AR) has an important role in males and also an important role in women. Variation of the AR gene is estimated to contribute to what proportion of the heritability of AGA in men?

- A. ☐ 10 %
- B. ☐ 20 %
- C. ☐ 40 %
- D. ☐ 90 %

Q.8) Dermal papilla cells are known to release growth factors and molecules that can both STIMULATE hairs to grow and INHIBIT hairs. Which of the following are growth STIMULATORY factors? Choose all that apply! There could be more than one!

- A. ☐ vascular endothelial growth factor (VEGF)
- B. ☐ Transforming growth factor-beta 2 (TGF- β 2)
- C. ☐ Dickkopf 1 (DKK-1)
- D. ☐ Insulin-like growth factor 1 (IGF-1)

Q.9) Dermal papilla cells are known to release growth factors and molecules that can both STIMULATE hairs to grow and INHIBIT hairs. Which of the following are growth inhibitory factors? Choose all that apply - there could be more than 1 !

- A. ☐ Vascular endothelial growth factor (VEGF)
- B. ☐ Transforming growth factor-beta 2 (TGF- β 2)
- C. ☐ Dickkopf 1 (DKK-1)
- D. ☐ Insulin-like growth factor 1 (IGF-1)

Q.10) It is well known that in biopsies of patients with AGA that hair follicles have mild chronic inflammation and surrounding fibrosis. What might this do hair follicle stem cells?

- A. ☐ Inflammation and fibrosis might enhance the survival of hair follicle stem cells
- B. ☐ Inflammation and fibrosis might reduce the survival of hair follicle stem cells
- C. ☐ Inflammation and fibrosis might trigger DNA damage in hair follicle stem cells
- D. ☐ none of the above.

Q.11) Which of the following are sometimes part of the clinical presentation of androgenetic alopecia in women?

- A. ☐ reduction in the density in the mid-scalp
- B. ☐ excessive hair shedding
- C. ☐ a feeling that hair doesn't want to grow
- D. ☐ all of the above

Q.12) Which of the following statements about the bulge region of hair follicles is accurate?

- A. ☐ Keratin 91 (KRT91) is a marker of bulge stem cells
- B. ☐ Increased binding between the bulge region and the arrector pili muscle is hypothesized to facilitate miniaturization
- C. ☐ Scarring alopecia destroys hair follicle stem cells in the bulge region
- D. ☐ all of the above

Q.13) In the course of balding, dermal papilla cells secrete a protein called DKK1 (dickkopf 1). This protein is known to be an inhibitor of what important pathway in hair follicles?

- A. ☐ JAK pathway (janus kinase)
- B. ☐ Wnt pathway

- C. ☐ 5 alpha reductase pathway
- D. ☐ TNF alpha pathway (tumor necrosis factor alpha)

Q.14) Which of the following statements about precocious puberty is correct?

- A. ☐ Precocious puberty refers to the onset of puberty before age 8 in girls and 9 in boys
- B. ☐ Most girls with precocious puberty are healthy and in most cases there is no underlying pathology (like a brain tumor, injury, or genetic syndrome)
- C. ☐ For most boys with precocious puberty there is some sort of underlying pathology.
- D. ☐ all of the above

Q.15) Puberty is best defined as a time in life when something unique happens to the hypothalamic-pituitary-gonadal (HPG) axis. What happens ?

- A. ☐ It awakens
- B. ☐ It shuts off
- C. ☐ The axis awakens the adrenal gland and stimulates adrenal androgens
- D. ☐ none of the above.

Q.16) The Patient Health Questionnaire (PHQ-9) is a multipurpose instrument for screening, diagnosing and monitoring the severity of depression. What score cut off would denote "severe major depression"? (Please look this answer up if you are not sure and do not guess! This is an easy question - but you might need to look up the answer. EVERYONE should get this right!! Please use your internet!)

- A. ☐ 5 or more
- B. ☐ 10 or more
- C. ☐ 15 or more
- D. ☐ 20 or more

Q.17) What is the first sign of puberty in males?

- A. ☐ Growth spurt
- B. ☐ Growth of underarm hair
- C. ☐ Increase in the size of the testicles
- D. ☐ Growth of pubic hair

Q.18) Which of the following situations would lead to an increase in sex hormone binding globulin levels?

- A. ☐ hypothyroidism
- B. ☐ primary ovarian insufficiency
- C. ☐ polycystic ovarian syndrome
- D. ☐ use of carbamazepine (an anti-seizure medication)

Q.19) Judy is 23 and presents to clinic with concerns about her androgenetic alopecia. She also has acne and hirsutism. Her periods are regular and always have been regular. She does not use birth control. Her body mass index is 22. You would like to order blood tests to rule out comorbidities. Which of the following blood tests is least helpful (and not needed) for Judy?

- A. ☐ ferritin
- B. ☐ testosterone
- C. ☐ DHEAS
- D. ☐ FSH

Q.20) Combined oral contraceptives (COC) contain an estrogen component and and progestin component. How much estrogen and progestin is in the birth control pill called "YAZ"?

- A. ☐ 1.0 mg drospirenone and 0.040 mg ethinyl estradiol
- B. ☐ 2.0 mg drospirenone and 0.020 mg ethinyl estradiol
- C. ☐ 3.0 mg drospirenone and 0.020 mg ethinyl estradiol
- D. ☐ 3.0 mg drospirenone and 0.040 mg ethinyl estradiol

Q.21) Combined estrogen and progestin birth control pills are not suitable for every female patient. Which of the following patient groups should not be prescribed a birth control pill?

- A. ☐ A 32 year old woman who developed a blood clot in the leg following a COVID 19 infection.
- B. ☐ A 23 year old women with mirgraine headaches associated with focal neurological deficit
- C. ☐ A 36 year old woman who smokes 12 cigarettes per day.
- D. ☐ all of the above.

Q.22) Which of the following is not a typical sign of hyperandrogenism?

- A. ☐ hirsutism
- B. ☐ dry skin
- C. ☐ decreased breast size
- D. ☐ deepening of the voice

Q.23) How would you classify this woman's androgenetic hair loss?



- A. ☐ Sinclair scale 1
- B. ☐ Sinclair scale 2
- C. ☐ Sinclair scale 3
- D. ☐ Sinclair scale 4

Q.24) How would you describe this woman's pattern of androgenetic alopecia in a consult letter you will send back to the referring practitioner?



- A. ☐ There is hair loss in the temples and crown consistent with androgenetic alopecia.
- B. ☐ The part is widened and there is a greater degree of hair thinning in the more anterior (frontal) regions of the scalp compared to the crown. The pattern of loss fits the Olsen pattern of hair loss.
- C. ☐ The central part is widened with the mid-scalp affected in a Ludwig 2 pattern. There is mild erythema but no evidence for lichen planopilaris or frontal fibrosing alopecia.
- D. ☐ The part is widened and the patient has approximately 20 % loss of density (SALT 20).

Q.25) Which of the following would be more typical of androgenetic alopecia than chronic telogen effluvium ?

- A. ☐ patient history indicates severe shedding
- B. ☐ patient history indicates abrupt onset
- C. ☐ clinical examination shows widened part
- D. ☐ high hair density before hair loss began

Q.26) This question is not scored.

Would you please answer this question for the EBHF Program.

Was this WEEK 25 quiz useful in helping you solidify important information in your mind ... and challenge your thinking process?