

Mid-Term Examination - D-273 Introduction to Periodontology - spring 2007

Instructions: Select the single best answer for each question. Fill in answers and the last 4 digits of your student number on the computer sheet. Both this examination copy and the computer answer sheet must be turned in. You have until 11:30 am to complete the examination. No questions during the examination to supervising proctors will be answered. Questions #1-33 are worth three points each, and Question #34 is worth one point.

1. Antibodies against subgingival dental plaque bacteria:
 - A. provide the first line of host immune defense in periodontal pockets. *2nd line*
 - B. stimulate mast cells.
 - C. are synthesized by plasma cells.
 - D. all of the above
2. Mast cells in gingival tissues participate in host vascular responses by:
 - A. releasing histamine.
 - B. serving as an opsonin in facilitating bacterial phagocytosis.
 - C. secreting prostaglandins and leukotrienes.
 - D. all of the above
3. In the development and resolution of inflammation in gingival tissues, the stage of inflammation immediately preceding (before) the stage where new fibrous connective tissues surrounds and contains area of inflammation is which of the following?
 - A. increased vascular permeability 3
 - B. initiation of repair 4
 - C. neutralization of the initiating factor 4
 - D. a sublethal injury 1
4. The role of NADPH oxidase at cell surfaces of "primed" neutrophils in periodontal pockets is to:
 - A. facilitate opsonization of dental plaque bacteria.
 - B. help generate reactive oxygen species cidal to bacteria.
 - C. permit secretion of lysozyme from primary (azurophilic) granules.
 - D. none of the above
5. Severe early-onset forms of periodontitis are associated with:
 - A. diapedesis of neutrophils across host endothelium membranes.
 - B. absence of CD18 neutrophil adhesion molecules.
 - C. immune clearance of dental plaque biofilms.
 - D. exposure of sialic acid residues of host epithelial cells.
6. Late bacterial colonizers of dental plaque biofilms:
 - A. are predominately gram-positive bacteria.
 - B. bind directly to proline-rich proteins in dental pellicle. *bind gram+*
 - C. attach to negatively-charged phosphate groups on hydroxyapatite tooth surfaces. *pellicle formation*
 - D. coaggregate to surfaces of pellicle-attached microorganisms.
7. The color of visually evident dental plaque may appear as which of the following?
 - A. brown
 - B. white
 - C. black
 - D. all of the above

Subgingival plaque biofilm bacteria in closest proximity to tooth root surfaces are:

- A. predominately gram-positive.
- B. predominately gram-negative.
- C. equally gram-positive and gram-negative.
- D. late colonizers.

9. Which of the following are is (are) present as anti-bacterial components in saliva?

- A. lysozyme.
- B. defensins
- C. secretory IgA
- D. all of the above

10. Rapidly progressive necrosis of gingival tissues in a person with good oral hygiene is most likely associated with which of the following?

- A. pregnancy
- B. leukemia
- C. HIV infection
- D. Vitamin C deficiency

11. Which of the following causes of non-plaque-induced gingival lesions has a high patient mortality rate?

- A. pemphigoid
- B. lichen planus
- C. drug-induced lichenoid reaction
- D. pemphigus vulgaris

12. Gingival recession caused by repeated fingernail scratching is a type of:

- A. foreign body reaction
- B. iatrogenic traumatic lesion
- C. factitious traumatic lesion
- D. none of the above

13. Drug-induced lichenoid reaction lesions on gingival tissues may be caused by:

- A. steroidal medications
- B. antimalarial agents
- C. anti-acne drugs
- D. all of the above

14. Which form of lupus erythematosus exclusively affects mucocutaneous tissues and causes desquamative gingival lesions?

- A. The systemic form.
- B. The subacute systemic form.
- C. The discoid form.
- D. none of the above

15. Which of the following induces formation of firm, dense, resilient, insensitive fibrous gingival tissue that contain dense collagen bundles with few fibroblasts?

- A. hereditary gingival fibromatosis
- B. gingival histoplasmosis
- C. lichen planus
- D. hot thermal burns

6. Generalized linear gingival erythema in the presence of oral hygiene is frequently associated with:

- A. an allergic lichenoid reaction.
- B. pemphigus vulgaris
- C. HIV infection
- D. shingles

17. Primary herpetic gingivostomatitis clinically occurs in ^{10%}100% of persons exposed to the herpes simplex virus. Patients with primary herpetic gingivostomatitis develop a fever in addition to painful gingival lesions.

- A. Both statements are true.
- B. The first statement is true, but the second statement is false.
- C. The first statement is false, but the second statement is true.
- D. Both statements are false.

18. Dental plaque-induced gingival diseases may occur on a periodontium with no periodontal attachment loss. Chronic periodontitis usually has its onset in adults.

- A. Both statements are true.
- B. The first statement is true, but the second statement is false.
- C. The first statement is false, but the second statement is true.
- D. Both statements are false.

19. The mucogingival junction is located at the division of:

- A. the attached gingiva and the free gingival margin.
- B. the free gingival margin and the sulcular epithelium
- C. the attached gingiva and the alveolar mucosa
- D. none of the above

20. The free gingival groove:

- A. is a small mucosal tag on the lingual of mandibular canines.
- B. is covered by nonkeratinized stratified squamous epithelium
- C. increases apically with age.
- D. is present in approximately 50% of persons.

21. Melanin pigmentation of gingival tissues is:

- A. influenced by epithelial keratinization.
- B. more predominant in black (African-American) persons.
- C. more pronounced in elderly persons.
- D. all of the above

22. Gingival tissue stippling:

- A. appears as a sign of gingival disease.
- B. occurs on attached gingiva only.
- C. is more predominant on lingual gingival tissue surfaces.
- D. first appears in infants.

23. Rete ridges in the oral epithelium:

- A. permit more rapid cellular turnover from the increased number of basal cells.
- B. allow more surface area for nutritional and oxygen exchange.
- C. interface with the papillary layer of the lamina propria.
- D. all of the above

24. Merkle cells in gingival epithelium are involved in:

- A. melanin production
- B. the host immune response.
- C. keratin formation
- D. tactile reception

25. Which of the following epithelium has the fewest intercellular junctions between cells?

- A. oral epithelium
- B. sulcular epithelium
- C. junctional epithelium
- D. all of the above have the same number of intercellular junctions between cells.

26. The human periodontal ligament is:

- ~~A. thinner in areas of compression.~~
- B. thinner on non-functional teeth.
- C. thinner in areas of tension.
- D. Both answers A and B above

27. The principal fibers of the human periodontal ligament are made of:

- A. Type VII collagen
- B. Type I collagen
- C. Type IV collagen
- D. all of the above

28. Which of the following non-microbial factors increases risk for periodontitis?

- 1. calculus
- 2. overhanging margins on interproximal dental restorations
- 3. epithelial rests of Mallassez
- 4. supragingival tooth stain

- A. all of the above
- B. 1, 3 & 4 only
- C. 1 & 2 only
- D. 1, 3 & 4 only

29. Relative to diabetes mellitus, the occurrence of periodontitis in the United States adult population is:

- A. at a similar level
- B. greater
- C. lower
- D. not known

30. The oral epithelium is anchored to the underlying connective tissue by:

- A. Type I collagen
- B. hemidesmosomes
- C. lamina dura
- D. lamina propria

31. A _____ (select one of answers below to fill in blank) is characterized by an opening or window through thin facial alveolar bone, exposing a tooth root surface, where the adjacent marginal alveolar bone surrounding the tooth is intact.

- A. dehiscence
- B. periosteum
- C. fenestration
- D. hypercementosis

32. Acellular extrinsic fiber cementum is:

- A. devoid of all cells other than fibroblasts and neutrophils.
- B. does not have extrinsic Sharpey's fibers.
- C. produced by cementoblasts alone.
- D. found mostly in the cervical third of tooth roots.

33. Subgingival calculus is:

- A. calcified by saliva
- B. a primary cause of chronic periodontitis.
- C. conducive to microbial growth on and around its surfaces.
- D. removed easily by conventional toothbrushing.

34. Hypersensitivity of tooth surfaces is related to open micro tubules in dentin exposed to the oral cavity.

- A. The statement is true.
- B. The statement is false.