

**Chapter 01: Introduction to Preliminary Diagnosis of Oral Lesions**  
**Ibsen: Oral Pathology for the Dental Hygienist, 8th Edition**

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**MULTIPLE CHOICE**

1. Which vocabulary word is used to describe a segment that is part of the whole?
  - a. Bulla
  - b. Pedunculated
  - c. Lobule
  - d. Macule

ANS: C

A lobule is described as a segment or lobe that is part of a whole. Bulla is a circumscribed, elevated lesion, more than 5 mm in diameter, containing serous fluid and looks like a blister. Pedunculated describes a lesion that is attached by a stemlike or stalklike base, similar to that of a mushroom. Macule is a flat area usually distinguished by a color different from that of surrounding tissue. A freckle is an example of a macule.

REF: Vocabulary, Clinical of Soft Tissue Lesions, page 1      OBJ: 1

2. A lesion with a sessile base is described as
  - a. an ulcer.
  - b. stemlike.
  - c. pedunculated.
  - d. flat and broad.

ANS: D

*Sessile* describes the base of a lesion that is flat and broad. An ulcer is a break in the surface epithelium. A stemlike lesion is referred to as *pedunculated*. A pedunculated lesion is stemlike or stalk-based (similar to a mushroom).

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 1  
OBJ: 1

3. Which condition is *not* diagnosed through clinical appearance?
  - a. Mandibular tori
  - b. Fordyce granules
  - c. Black hairy tongue
  - d. Compound odontoma

ANS: D

The compound odontoma is initially identified radiographically as a radiopaque area in which tooth structure can be identified. No clinical component exists. Mandibular tori are identified clinically as areas of exostosis on the lingual aspects of mandibular premolars. Fordyce granules are yellow clusters of ectopic sebaceous glands diagnosed through clinical appearance. Black hairy tongue is diagnosed clinically. The filiform papillae on the dorsal tongue elongate and become brown or black. Causes include tobacco, alcohol, hydrogen peroxide, chemical rinses, antibiotics, and antacids.

REF: Radiographic Diagnosis, page 9      OBJ: 3

4. Another name for erythema migrans is
- median rhomboid glossitis.
  - geographic tongue.
  - cobblestone tongue.
  - scrotal tongue.

ANS: B

Geographic tongue is another name for erythema migrans. Median rhomboid glossitis, once thought to be developmental but currently research indicates it is associated with a chronic fungal infection from *Candida albicans*. Cobblestone tongue is observed in a patient with Sjogrens syndrome, an autoimmune condition. Scrotal tongue is another name for fissured tongue.

REF: Geographic Tongue, page 24      OBJ: 4

5. This bony hard, radiopaque structure in the midline of the hard palate is diagnosed through clinical diagnosis. It is genetic in origin and inherited in an autosomal dominant manner. You suspect:



- median palatal cyst.
- torus palatinus.
- pleomorphic adenoma.
- incisal canal cyst.

ANS: B

Torus palatinus is radiopaque, developmental, bony hard, and found on the midline of the hard palate. Medial palatal cyst is a rare fissural cyst that appears as a radiolucency in the midline of the hard palate. Pleomorphic adenoma is a benign salivary gland tumor, unilaterally found on the posterior palate and associated with the parotid gland. Incisal canal cyst is usually a heart shaped radiolucency found at the apices of the maxillary centrals.

REF: Torus Palatinus, page 21      OBJ: 3

6. The gray-white opalescent film seen on the buccal mucosa of 85% of black adults is a variant of normal that requires no treatment and is termed
- linea alba.
  - leukoedema.
  - leukoplakia.

d. white sponge nevus.

ANS: B

Leukoedema is a diffuse opalescence most commonly seen on the buccal mucosa in black individuals. Linea alba is a “white line” that extends anteroposteriorly on the buccal mucosa along the occlusal plane. It is most prominent in patients who have a clenching or grinding habit. *Leukoplakia* is a clinical term for a white lesion, the cause of which is unknown. White sponge nevus is a genetic (autosomal dominant) trait. Clinically, it is characterized by a soft white, folded (or *corrugated*) oral mucosa. A thick layer of keratin produces the whitening.

REF: Leukoedema, page 23

OBJ: 3

7. Which condition responds to therapeutic diagnosis?
- Angular cheilitis
  - Amelogenesis imperfecta
  - Leukoplakia
  - Linea alba

ANS: A

Angular cheilitis is associated with *Candida albicans* and responds to treatment with antifungals. Amelogenesis imperfecta is genetic and diagnosed through clinical, historical and radiographic features. Leukoplakia is purely a clinical term to describe a white lesion with unknown cause. Biopsy and microscopic examination are necessary to establish a diagnosis. Linea alba is considered a variant of normal and diagnosis is made through clinical diagnosis.

REF: Therapeutic Diagnosis, page 19

OBJ: 2

8. The gingival enlargement in this patient is caused by a calcium channel blocker. Which one of the following medications is the cause?



- Dilantin
- Nifedipine
- Tetracycline
- Cyclosporine

ANS: B

Nifedipine is a calcium channel blocker that causes gingival enlargement. Dilantin is an anticonvulsant medication used to control seizures and other neurologic conditions that does cause gingival enlargement. Tetracycline is an antibiotic responsible for discoloring teeth. Cyclosporine is an immunosuppressant drug that also causes gingival enlargement, and is used to prevent rejection of organ transplants.

REF: Historical Diagnosis, Fig. 1.38B, page 17

OBJ: 2

9. Radiographic features, including cotton-wool radiopacities and hypercementosis, are especially helpful in the diagnosis of
- Paget disease.
  - dentinogenesis imperfecta.
  - anemia.
  - diabetes.

ANS: A

Paget disease is a chronic metabolic bone disease. Radiographically, cotton-wool radiopacities and hypercementosis are characteristic features. Dentinogenesis imperfecta is a genetic condition involving a defect in the development of dentin. Anemia, a decrease in red blood cells, requires blood tests to determine the etiologic factors. Diabetes is a chronic disorder of carbohydrate metabolism characterized by abnormally high blood glucose levels.

REF: Laboratory Diagnosis, Fig. 1.41, pages 16, 18

OBJ: 3

10. Which one of the following is recommended when diagnosing lingual thyroid?
- Biopsy
  - Thyroid scan
  - Clinical location
  - FMS

ANS: B

Thyroid scan is the safest way to determine the presence of thyroid tissue on the posterior tongue. Biopsy is not recommended because of bleeding complications. Clinical location is helpful but does not definitively determine the presence of thyroid tissue. An FMS will not contribute anything in determining the presence of thyroid tissue.

REF: Vocabulary, Radiographic Terms Used to Describe Lesions in Bone, page 24

OBJ: 4

11. Which condition is diagnosed through clinical appearance?
- Fordyce granules
  - Unerupted mesiodens
  - Periapical cemento-osseous dysplasia
  - Traumatic bone cyst

ANS: A

Fordyce granules are diagnosed on the basis of their clinical appearance. They are ectopic sebaceous glands seen on the lips and buccal mucosa. Clinically, they appear as yellow lobules in clusters and are considered a variant of normal. Unerupted mesiodens requires a radiographic image for diagnosis. Periapical cemento-osseous dysplasia requires a radiographic image, specific patient history, and a pulp test to evaluate tooth vitality. Traumatic bone cyst requires a radiographic image and surgical intervention to establish a diagnosis.

REF: Clinical Diagnosis, page 6 | Fordyce Granules, page 21      OBJ: 3

12. Retrocuspid papilla are located on the
- palate.
  - ventral tongue near caruncles.
  - gingival margin on the lingual of mandibular canines.
  - anterior to the circumvallate papilla.

ANS: C

Retrocuspid papilla are located on the gingival margin on the lingual of mandibular canines. The palate has nothing to do with retrocuspid papilla. The tongue, dorsal or ventral aspects will never have the retrocuspid papilla.

REF: Retrocuspid Papilla, page 23      OBJ: 3

13. Which condition is *not* considered a variant of normal?
- Fordyce granules
  - Leukoedema
  - Linea alba
  - Pyogenic granuloma

ANS: D

Pyogenic granuloma is a reactive inflammatory response to injury. It is not a variant of normal. Fordyce granules are seen in more than 80% of adults over 20 years of age and are considered a variant of normal. Leukoedema is observed in about 85% of black individuals and is considered a variant of normal. Linea alba is located on the buccal mucosa along the occlusal plane of the teeth. It is most prominent in patients who have a clenching or bruxism habit. It is so common that it is considered a variant of normal.

REF: Box 1-1, Case Study, page 20 | Variants of Normal, pages 21, 23  
OBJ: 3

14. When antifungal therapy is used to treat angular cheilitis, which diagnostic process is being applied?
- Microscopic
  - Laboratory
  - Surgical
  - Therapeutic

ANS: D

Therapeutic diagnosis is used here in the treatment and management of angular cheilitis, which is most commonly a fungal condition. A careful patient history should be obtained to rule out a contributory nutritional deficiency. Microscopic diagnosis requires a biopsy. Laboratory diagnosis involves the use of clinical laboratory tests, including blood chemistries and urinalysis. Surgical diagnosis requires surgical intervention.

REF: Therapeutic Diagnosis, page 19      OBJ: 3

15. A lesion with a stemlike base is described as
- sessile.
  - macular.
  - pedunculated.
  - lobulated.

ANS: C

*Pedunculated* means the lesion has a stemlike or stalklike base similar to that of a mushroom. A sessile base is broad and flat. A macular lesion is flat, does not protrude, and is distinguished by its color. A freckle is an example of a macule. *Lobulated* means the lesion consists of lobules making up the whole.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 1  
OBJ: 1

16. A small, circumscribed lesion, usually less than 1 cm in diameter, that is elevated or protrudes above the surface of normal surrounding tissue is termed a
- papule.
  - macule.
  - nodule.
  - bulla.

ANS: A

A papule is a small circumscribed lesion usually less than 1 cm in diameter, that is elevated or protrudes above the surface of normal surrounding tissue. A macule is flat and does not protrude above the surface of normal tissue but does have a difference in color than that of surrounding tissue. A freckle is an example of a macule. A nodule is a palpable solid lesion up to 1 cm in diameter found in soft tissue. A bulla is a circumscribed elevated lesion that is more than 5 mm in diameter, usually containing serous fluid and looks like a blister.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 1  
OBJ: 1

17. Which condition is considered a genetic/inherited disorder?
- Linea alba
  - Amelogenesis imperfecta
  - Necrotizing ulcerative gingivitis
  - Internal resorption

ANS: B

Amelogenesis imperfecta is an inherited disorder affecting the development of the ameloblasts. There are several variants of this condition. Linea alba is a variant of normal found on the buccal mucosa, along the occlusal plane. Necrotizing ulcerative gingivitis is a condition of the gingiva caused by anaerobic bacteria and characterized by punched papilla, ulcerations in the sulcus, foul odor and metallic taste. Internal resorption is an inflammatory response in the pulp leading to the periodontal ligament.

REF: Historical Diagnosis, pages 13, 15 OBJ: 2

18. All of the following are characteristics of periapical cemento-osseous dysplasia except one. Which one is the exception?
- Teeth are vital
  - More common in Asians
  - More common in black females
  - Mid-thirties

ANS: B

Periapical cemento-osseous dysplasia is NOT common in the Asian population. Periapical cemento-osseous dysplasia is found most often in black females in their 30's. All teeth are vital and no treatment is necessary.

REF: Geographic Tongue, page 16 OBJ: 2

19. Stafne bone cyst contains which of the following?
- Salivary gland tissue
  - An empty void
  - Inflammatory cells
  - An epithelium lined cyst with serous fluid

ANS: A

Stafne bone cyst contains salivary gland tissue entrapped in the lingual aspect of the posterior mandible. An empty void describes the contents of a traumatic bone cyst. There are no inflammatory cells in Stafne bone cyst. Stafne bone cyst is considered a pseudocyst since there is no epithelial lining.

REF: Surgical Diagnosis, page 19 OBJ: 2

20. Which papillae elongate in the condition black hairy tongue?
- Circumvallate
  - Foliate
  - Filiform
  - Fungiform

ANS: C

Filiform papillae are the papillae that elongate and discolor in black (or white) hairy tongue. The circumvallate papillae are on the posterior dorsal tongue and never elongate. Foliate papillae are on the posterior lateral borders and do not elongate. Fungiform papillae on the dorsal tongue are erythematous in color and do not elongate.

REF: Hairy Tongue, page 25 OBJ: 4

21. Diagnosis of anemia is best accomplished through which examination?

- a. Laboratory tests
- b. Evaluation of the color of the gingiva
- c. Bleeding on probing
- d. Patient medical history

ANS: A

Laboratory blood tests provide the best information with which to diagnose anemia. Although the color of the gingiva may be a clinical sign, a diagnosis of anemia, or more specifically the type of anemia, must be made through laboratory testing. Bleeding on probing is not useful in the diagnosis of anemia. The patient's medical history may be helpful in the diagnosis of anemia, but it is only contributory. The final diagnosis comes from appropriate laboratory tests.

REF: Laboratory Diagnosis, page 16      OBJ: 3

22. A radiolucency that "scallops around the roots of teeth" is often used to describe which condition?
- a. Traumatic bone cyst
  - b. Stafne bone cyst
  - c. Lingual mandibular bone concavity
  - d. Median palatine cyst

ANS: A

*Scalloping around the roots* is a term often used to describe the radiographic appearance of a traumatic bone cyst. A Stafne bone cyst usually presents as an oval radiolucency anterior to the angle of the ramus and inferior to the mandibular canal. A lingual mandibular bone concavity is the same lesion as a Stafne bone cyst. A median palatine cyst is a developmental cyst that presents as a unilocular radiolucency found in the midline of the hard palate.

REF: Vocabulary, Radiographic Terms Used to Describe Lesions in Bone, page 4  
OBJ: 3

23. Red flat areas of the dorsal tongue with yellow-white borders best describe which of the following conditions?
- a. Median rhomboid glossitis
  - b. White coated tongue
  - c. Erythema migrans
  - d. Oral hairy leukoplakia

ANS: C

Erythema migrans, also referred to as benign migratory glossitis or geographic tongue, appears as flat red areas of the tongue with surrounding yellow-white borders. Median rhomboid glossitis is a form of candidiasis that manifests as a red, rhomboidal shaped patch on the mid-dorsal tongue. White coated tongue is the result of elongation of the filiform papilla. Oral hairy leukoplakia is a white, non-removable lesion of the lateral tongue caused by Epstein Barr Virus.

REF: Erythema Migrans (Geographic Tongue), page 24      OBJ: 2

24. *Candida albicans* is the etiologic agent for all of the following except one. Which is the EXCEPTION?



- a. Denture stomatitis
- b. Median rhomboid glossitis
- c. Angular cheilitis
- d. Erythema migrans

ANS: D

Erythema migrans is unrelated to candidal infection. *Candida albicans* is a fungal organism which is implicated in the development of denture stomatitis, median rhomboid glossitis, and angular cheilitis.

REF: Median Rhomboid Glossitis (Central Papillary Atrophy), page 24

OBJ: 4

25. Which term is used to describe a radiographic lesion with borders that are specifically defined, revealing the exact margins and extent of the lesion?
- a. Unilocular
  - b. Well circumscribed
  - c. Diffuse
  - d. Multilocular

ANS: B

*Well circumscribed* defines a lesion with borders that are specifically defined and in which one can see the exact margins and extent of the lesion. *Unilocular* means having one compartment or unit that is well defined (as in a radicular cyst). *Diffuse* describes a lesion with borders that are not well defined. Multilocular lesions are described radiographically as resembling “soap bubbles” (i.e., a lesion with many lobes beyond the confines of one distinct area).

REF: Vocabulary, Radiographic Terms Used to Describe Lesions in Bone, page 4

OBJ: 1

26. Fordyce granules
- a. are ectopic sebaceous glands.
  - b. are seen on the dorsal surface of the tongue.
  - c. require antibiotic treatment.
  - d. are lesions that require biopsy for diagnosis.

ANS: A

Fordyce granules are ectopic sebaceous glands. Fordyce granules are seen on the buccal and labial mucosa, not the dorsal tongue. Fordyce granules require no treatment. Fordyce granules are diagnosed through clinical appearance. Biopsy is not necessary.

REF: Fordyce Granules, page 21

OBJ: 4

27. The base of this lesion is correctly described as



- a. pedunculated.
- b. lobule.
- c. bulla.
- d. sessile.

ANS: D

The base of this lesion is sessile, or broad and flat. A pedunculated lesion has a stemlike base similar to that of a mushroom stem. A lobule is a segment or lobe that is part of the whole. A bulla usually contains serous fluid and looks like a blister.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, Fig. 1.3, pages 1, 2

OBJ: 1

28. This torus palatinus is correctly described as



- a. bullous.
- b. papular.
- c. lobulated.
- d. nodular.

ANS: C

This torus palatinus is lobulated (i.e., lobes that are fused together). Bullous lesions contain serous fluid and resemble blisters. A papule is a soft tissue lesion that is elevated above the surface of normal surrounding tissue. A nodule is a palpable solid lesion found in soft tissue.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, Fig. 1.1, pages 1, 2

OBJ: 1

29. A 70-year-old male with a history of significant restorative dental work at a different office presents to you for care. On intraoral examination, you observe a flat, grey-colored lesion of the left mandibular alveolar ridge. What is the best diagnosis?

- a. Amalgam tattoo
- b. Melanoma
- c. Leukoplakia
- d. Pyogenic granuloma

ANS: A

An amalgam tattoo is a discolored portion of oral mucosa which results from impregnation of amalgam material into the oral soft tissues. This imparts a grey to black coloration to the affected mucosa. A melanoma is a pigmented malignant neoplasm that will appear brown to black in color. Leukoplakias refer to white, non-removable lesions of unknown etiology. A pyogenic granuloma is an exophytic gingival lesion that is typically bright red in color and bleeds easily.

REF: Clinical Diagnosis, page 8                      OBJ: 2

30. Which finding is *not* apparent in leukoedema?
- a. Intracellular edema in the spinous cells
  - b. Acanthosis of the epithelium
  - c. Generalized opalescence of the buccal mucosa
  - d. A white diffuse material on the buccal mucosa that can be wiped off

ANS: D

A white diffuse material that can be wiped off is significant in diagnosing pseudomembranous candidiasis. Intracellular edema in the spinous cells is found in leukoedema. Acanthosis of the epithelium is found in leukoedema. Generalized opalescence of the buccal mucosa is seen in leukoedema.

REF: Leukoedema, page 23                      OBJ: 3

31. An ameloblastoma is an odontogenic tumor which appears dark or black on a radiograph when compared to the surrounding bone. This radiographic appearance is best described as
- a. radiolucent.
  - b. radiopaque.
  - c. radiolucent and radiopaque.
  - d. multilocular.

ANS: A

A radiolucent lesion refers to one that is darker or black in appearance when compared to the surrounding bone. A radiopaque lesion describes a light or white area when compared to surrounding bone. Some lesions may have both of the above features and are described as radiolucent and radiopaque. A multilocular lesion extends beyond the confines of one distinct area and has lobes or parts that are fused together.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 3  
OBJ: 1

32. A lesion with a pedunculated base is best described as
- a. an ulcer.
  - b. stemlike.
  - c. pallor.
  - d. broad and flat.

ANS: B

A stemlike lesion is referred to as *pedunculated*. An ulcer is a break in the surface epithelium. Pallor is a paleness of the skin or mucosal tissues. *Broad and flat* describes the base of a sessile lesion.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 1

OBJ: 1

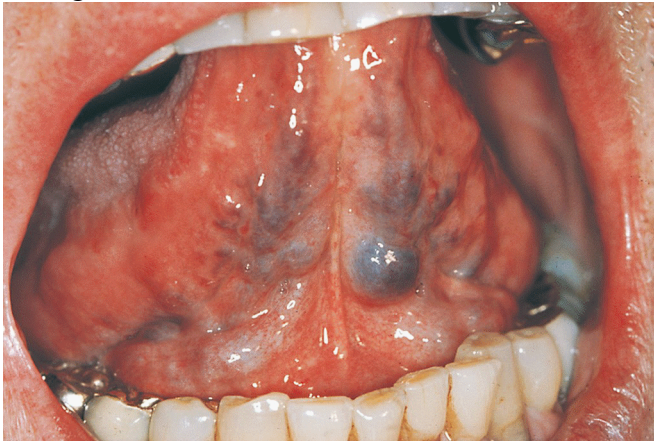
33. The following lesions can be identified radiographically *except* one. Which one is the *exception*?
- Root resorption
  - Fordyce granules
  - Interproximal dental caries
  - Compound odontoma

ANS: B

Fordyce granules are yellow clusters of ectopic sebaceous glands that are diagnosed through clinical appearance. Root resorption is identified radiographically when the apex of the tooth appears shortened or blunted. Interproximal dental caries are seen as radiographic radiolucencies. A compound odontoma is initially identified radiographically as a radiopaque area in which tooth structure can be identified.

REF: Clinical Diagnosis, page 6 | Fordyce Granules, page 21      OBJ: 3

34. These reddish-purple clusters observed on the ventral surface of the tongue and diagnosed through clinical observation are referred to as which variants of normal conditions?



- Epithelial dysplasia
- Epidermoid cyst
- lingual varicosities
- ranula

ANS: C

Lingual varicosities are prominent lingual veins usually observed on the ventral and lateral surface of the tongue. They may increase in prominence with age. Epithelial dysplasia describes a premalignant oral lesion which is diagnosed through microscopy. An epidermoid cyst is a non-odontogenic cyst often seen on the midline floor of mouth. It is often doughy in consistency. Ranula is a term to describe a mucocele-like lesion that forms on the lateral floor of mouth.

35. You are evaluating a 35-year-old female who presents with a red-colored nodule of the maxillary facial gingiva. You excise the lesion and send it to an oral pathologist for diagnosis. The histologic appearance of the lesion shows multiple blood vessels arranged in lobular aggregates, and a diagnosis of a pyogenic granuloma is rendered. Which diagnostic category was NOT used in this process?
- Clinical
  - Radiographic
  - Surgical
  - Microscopic

ANS: B

Radiographic examination was not part of the diagnostic process for this soft tissue lesion. Documentation of the color and appearance of the lesion was the initial part of the work-up (clinical diagnosis). The lesion was then excised (surgical) and sent to the laboratory for final diagnosis (microscopic).

36. The following conditions most likely respond to therapeutic diagnosis *except* one. Which one is the *exception*?
- Angular cheilitis
  - Necrotizing ulcerative gingivitis
  - Nutritional deficiencies
  - Stafne bone cyst

ANS: D

Stafne bone cyst appears as a radiolucent lesion below the level of the inferior alveolar canal and can be reliably diagnosed through radiographic examination. Angular cheilitis commonly responds to antifungal therapy once nutritional deficiencies have been ruled out. Necrotizing ulcerative gingivitis responds to hydrogen peroxide rinses. Nutritional deficiencies are common conditions diagnosed by therapeutic means.

37. The variant of normal coloration seen on the mandibular gingival surface is termed



- a. lingual varicosities.
- b. leukoedema.
- c. melanin pigmentation.
- d. linea alba.

ANS: C

Melanin pigmentation is most commonly seen in dark-skinned individuals and gives color to the oral mucosa and gingiva. Lingual varicosities are prominent lingual veins observed on the ventral and lateral surfaces of the tongue. Leukoedema is a generalized opalescence imparted to the buccal mucosa. Linea alba is a white line that extends anteroposteriorly on the buccal mucosa along the occlusal plane of the teeth.

REF: Melanin Pigmentation, Fig. 1.51, pages 22-23

OBJ: 3

38. A white lesion that cannot be rubbed off and cannot be diagnosed on the basis of clinical characteristics alone is termed
- a. leukoplakia.
  - b. dentinogenesis imperfecta.
  - c. erythroplakia.
  - d. squamous cell carcinoma.

ANS: A

*Leukoplakia* is a clinical term for a white lesion that cannot be rubbed off and cannot be diagnosed on the basis of clinical characteristics alone. *Dentinogenesis imperfecta* is a genetic condition involving a defect in the development of dentin. *Erythroplakia* is a clinical term for a red lesion that cannot be diagnosed on the basis of clinical features alone. Squamous cell carcinoma is diagnosed by microscopic evaluation and does not refer to all white lesions that cannot be rubbed off.

REF: Microscopic Diagnosis, page 18

OBJ: 2

39. The radiographic appearance of a simple radicular cyst is best described as
- a. coalescence.
  - b. diffuse.
  - c. multilocular.
  - d. unilocular.

ANS: D

*Unilocular* means having one compartment or unit that is well defined. This term is often used to describe a radicular cyst. *Coalescence* refers to the process by which parts of a whole join together, or fuse, to make one. *Diffuse* describes a lesion with ill-defined borders, making it impossible to detect the exact parameters of the lesion. A multilocular lesion has also been described as “soap bubble”-like; the lobes appear to fuse together to make up the lesion.

REF: Vocabulary, Radiographic Terms Used to Describe Lesions in Bone, Fig. 1.13, page 4

OBJ: 1

40. A lesion found frequently in 30-year-old black women that requires a radiographic image and historical data for diagnosis is termed
- a. verruca vulgaris.
  - b. necrotizing ulcerative gingivitis.

- c. periapical cemento-osseous dysplasia.
- d. amalgam tattoo.

ANS: C

Periapical cemento-osseous dysplasia requires a radiograph, specific patient history, and a pulp test to evaluate tooth vitality. It is frequently found in black women in the third decade of life. Verruca vulgaris is diagnosed on the basis of its clinical and microscopic appearance and does not require a radiograph. Necrotizing ulcerative gingivitis requires clinical and historical data for diagnosis and does not require a radiograph. An amalgam tattoo relies on clinical and historical data for the diagnosis. In cases where the diagnosis is unclear, a radiograph can be performed to evaluate for radiopaque amalgam flecks.

REF: Historical Diagnosis, page 16      OBJ: 2

41. Leukoedema is a generalized opalescence appearing on the buccal mucosa; linea alba is a dark pigmented line appearing on the buccal mucosa.
- a. Both statements are true.
  - b. Both statements are false.
  - c. The first statement is true, and the second statement is false.
  - d. The first statement is false, and the second statement is true.

ANS: C

The first statement is true, and the second statement is false. Leukoedema is a generalized opalescence appearing on the buccal mucosa, as stated, but linea alba is not a dark pigmented line. The statement that leukoedema is a generalized opalescence appearing on the buccal mucosa is true; the statement that linea alba is a dark pigmented line is false. (Linea alba is a white line.) Leukoedema is a generalized opalescence appearing on the buccal mucosa, but linea alba is not a dark pigmented line.

REF: Leukoedema, Fig. 1.55, page 23 | Linea Alba, Fig. 1.54, page 23  
OBJ: 3

42. All of the following are considered variations of normal anatomy except one. Which is the EXCEPTION?
- a. Linea alba
  - b. Leukoedema
  - c. Leukoplakia
  - d. Fordyce granule

ANS: C

Leukoplakia is a white lesion of unknown origin that cannot be removed and cannot be diagnosed clinically as another specific disease. It represents a lesion rather than a variant of normal. Linea alba refers to a white line often seen bilaterally along the mid-buccal mucosa. It often results from chronic irritation (cheek biting). Leukoedema is a milky-white appearance of the buccal mucosa seen in darker skinned individuals. It will disappear when the mucosa is stretched. Fordyce granules are ectopic sebaceous glands seen in the buccal mucosa and other oral sites.

REF: Geographic Tongue, page 18 | Variants of Normal, pages 21-23  
OBJ: 3

43. The term *erythroplakia* is best used in which context?
- Microscopic
  - Radiographic
  - Therapeutic
  - Clinical

ANS: D

Erythroplakia is a clinical term used to describe a red lesion that cannot be removed and cannot be identified as another specific disease. It is a clinical descriptor rather than a specific diagnosis. If the lesion were biopsied and a specific diagnosis rendered, this would be a microscopic diagnosis. If the lesion were treated with medication and responded to therapy, then this would be considered a therapeutic diagnosis. Radiographic diagnosis would involve imaging studies (periapical film, panoramic radiograph) and is not applicable to erythroplakias.

REF: Vocabulary, Color of Lesion, page 2

OBJ: 1

44. The dorsal tongue lesions marked by the arrows are best diagnosed as



- erythema migrans.
- median rhomboid glossitis.
- erythroplakia.
- fissured tongue.

ANS: A

Median rhomboid glossitis will appear as a flat, red rhomboidal shaped lesion of the mid-dorsal tongue. Fissured tongue is characterized by deep grooves or fissures. Erythroplakia is a diagnosis of exclusion made only when a lesion cannot otherwise be identified as a specific entity.

REF: Median Rhomboid Glossitis, Fig. 1.21, page 24

OBJ: 3

45. Each condition is considered benign and of unknown cause *except* one. Which one is the *exception*?
- Hairy tongue
  - Amelogenesis imperfecta
  - Migratory glossitis
  - Fissured tongue

ANS: B



Amelogenesis imperfecta represents a group of inherited conditions affecting the enamel of teeth. Hairy tongue is a benign condition of unknown cause. Migratory glossitis is a benign condition of unknown cause. Fissured tongue is a benign condition of unknown cause.

REF: Historical Diagnosis, page 13            OBJ: 3

46. A medical history of a patient prescribed a calcium channel blocker may reveal which condition?
- Gingival enlargement
  - Cementoma
  - Paget disease
  - Ulcerative colitis

ANS: A

A patient taking a calcium channel blocker may exhibit gingival enlargement. A cementoma is not a result of a patient taking a calcium channel blocker. An elevated serum alkaline phosphatase level is significant for Paget disease but not for use of a calcium channel blocker. Ulcerative colitis may contribute to oral lesions but not gingival enlargement.

REF: Historical Diagnosis, Fig. 1.38B, page 15            OBJ: 3

47. Urticaria is an example of a(n)
- genetic disorder.
  - developmental disturbance.
  - immediate response to an allergen.
  - immunodeficiency response.

ANS: C

Urticaria is an immediate response to an allergen. Urticaria is not the result of a genetic disorder. Urticaria is not the result of a developmental disturbance. Urticaria is not a result of immunodeficiency.

REF: Historical Diagnosis, page 15            OBJ: 3

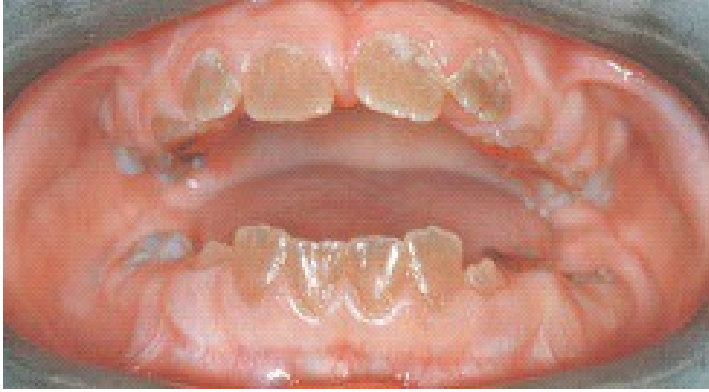
48. Which term describes a lesion in which parts of a whole are joined together, or fused, to make one?
- Fissured
  - Coalescence
  - Diffuse
  - Multilocular

ANS: B

*Coalescence* describes the process by which parts of a whole join together, or fuse, to make one. *Fissured* describes a cleft or groove, normal or otherwise, showing prominent depth. *Diffuse* describes a lesion with borders that are not well defined. Multilocular lesions are described radiographically as “soap bubbles” (i.e., a lesion with many lobes beyond the confines of one distinct area).

REF: Vocabulary, Radiographic Terms Used to Describe Lesions in Bone, page 3  
OBJ: 1

49. While obtaining diagnostic information from a patient, the dental hygienist learns that the appearance of this patient's teeth is familial. The correct diagnosis is



- a. tetracycline staining.
- b. pulpal dysplasia.
- c. extrinsic staining.
- d. dentinogenesis imperfecta.

ANS: D

Dentinogenesis imperfecta is a pathologic condition in which the family history plays a significant role in the diagnosis. Tetracycline staining is not a familial condition. Pulpal dysplasia is not a pathologic familial condition. Extrinsic staining is not a familial condition.

REF: Historical Diagnosis, Fig. 1.37A, pages 13, 15, 16      OBJ: 3

50. The eight categories that provide information leading to a definitive diagnosis are as follows: microscopic, clinical, laboratory, surgical, differential findings, radiographic, therapeutic, and
- a. etiology.
  - b. historical.
  - c. chief complaint.
  - d. treatment.

ANS: B

Historical information reveals past experiences that may be relevant to the diagnosis. Etiology is not a component of the definitive or final diagnosis. The chief complaint may be helpful in understanding the patient's perspective but is not considered a diagnostic tool. Treatment is decided after the definitive or final diagnosis is made, and it is not part of the information leading to the diagnosis.

REF: Making a Diagnosis, page 6      OBJ: 3

51. What is the radiographic appearance of periapical cemento-osseous dysplasia in its earliest stage?
- a. Radiolucent
  - b. Radiopaque
  - c. Radiolucent and radiopaque
  - d. Cotton-wool radiolucencies

ANS: A

In stage I of periapical cemento-osseous dysplasia, the appearance is radiolucent. Radiopacities are not seen in the early stage of periapical cemento-osseous dysplasia. In stage II, the appearance is radiolucent and radiopaque. Cotton-wool radiopacities are seen in patients with Paget disease.

REF: Vocabulary, Radiographic Terms Used to Describe Lesions in Bone, page 3  
OBJ: 2

52. All conditions are associated with lingual varicosities *except* one. Which is the *exception*?
- Red to purple enlarged vessels
  - May be associated with varicosities in the legs
  - Age-related condition
  - May swell during eating

ANS: D

Lingual varicosities do not swell during the eating process. Red to purple enlarged vessels are seen with lingual varicosities. Lingual varicosities may be associated with varicosities in the legs. Lingual varicosities are considered an age-related condition, often seen in individuals over the age of 60.

REF: Variants of Normal, page 23                      OBJ: 4

53. Various sizes of circumscribed elevations that contain pus are termed
- vesicles.
  - pustules.
  - papules.
  - lobules.

ANS: B

Pustules are variously sized circumscribed elevations containing pus. Vesicles are elevated lesions that contain serous fluid. Papules are elevated lesions that protrude above the surface of normal surrounding tissue. Lobules are segments or lobes that are part of the whole.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 1  
OBJ: 1

54. Studies have linked the presence of a lingual thyroid in association with the following life events *except* one. Which is the *exception*?
- Pregnancy
  - Infancy
  - Menopause
  - Puberty

ANS: B

Infancy is not associated with the presence of a lingual thyroid. The emergence of a lingual thyroid is linked to hormonal changes, such as pregnancy. The emergence of a lingual thyroid is linked to hormonal changes, such as menopause. The emergence of a lingual thyroid is linked to hormonal changes, such as puberty.

REF: Benign Conditions of Unknown Cause, page 23                      OBJ: 4

55. The lingual thyroid is most often found in which intraoral location?

- a. Posterior to the circumvallate papillae in the midline of the tongue
- b. Along the occlusal plane on the buccal mucosa
- c. At the junction of the hard and soft palate
- d. At the labial commissures

ANS: A

The lingual thyroid is seen as a mass in the midline of the dorsal surface of the tongue, posterior to the circumvallate papillae. The lingual thyroid is not seen on the buccal mucosa. The lingual thyroid is not found at the junction of the hard and soft palate. The lingual thyroid is not found at the labial commissures.

REF: Benign Conditions of Unknown Cause, page 23

OBJ: 4

56. Your patient is diagnosed with a lingual thyroid. What is the next step on the treatment plan?
- a. Biopsy
  - b. Surgical removal
  - c. Thyroid scan
  - d. Radiographic evaluation

ANS: C

A thyroid scan should be performed to determine if the thyroid gland is functioning normally. A biopsy is not needed for a lingual thyroid because it is composed of normal thyroid tissue. Surgical removal is not recommended since this may represent the patient's functioning thyroid. Radiographic evaluation is not helpful in the confirmation of a lingual thyroid.

REF: Benign Conditions of Unknown Cause, page 24

OBJ: 4

57. Because of its size and location, patients with a lingual thyroid may complain of
- a. dysphagia.
  - b. gingival inflammation.
  - c. intraoral ulcers.
  - d. tooth erosion.

ANS: A

Clinical symptoms of lingual thyroid can include dysphagia, or difficulty swallowing, because of the mass located at the posterior dorsal surface of the tongue. Gingival inflammation is not associated with patients with a lingual thyroid. Intraoral ulcers are not associated with patients with a lingual thyroid. Tooth erosion is not associated with patients with a lingual thyroid.

REF: Benign Conditions of Unknown Cause, page 24

OBJ: 4

58. Where is the common intraoral location for leukoedema?
- a. Lateral borders of the tongue
  - b. Soft palate and uvula
  - c. Floor of the mouth
  - d. Buccal mucosa

ANS: D

A generalized opalescence is imparted to the buccal mucosa in leukoedema. Leukoedema is not evident on the lateral borders of the tongue. The soft palate and uvula is not a location to find leukoedema. The floor of the mouth is not a location to see leukoedema.

59. The human papillomavirus (HPV) is associated with what condition?
- Thrush
  - Tuberculosis
  - Verruca vulgaris
  - Herpangina

ANS: C

Verruca vulgaris (the common wart) is caused by a low-risk type of the human papillomavirus. Thrush, or pseudomembranous candidiasis, is a superficial fungal infection seen in the oral cavity. Tuberculosis is a bacterial infection caused by inhalation of airborne droplets from someone with active disease. Herpangina is caused by a coxsackie virus and is characterized by fever, sore throat and oral lesions.

REF: Microscopic Diagnosis, page 18

OBJ: 2

60. A “white” hairy tongue indicates an increase in the amount of
- keratin.
  - medications.
  - fluoride use.
  - HPV circulating in the blood.

ANS: A

The increased amount of keratin on the filiform papillae gives the tongue a white appearance. Medications may affect the surface of the tongue but generally do not produce a white color. Fluoride use does not cause a “white” hairy tongue. The presence of the HPV does not cause a “white” hairy tongue.

REF: Benign Conditions of Unknown Cause, page 25

OBJ: 3

61. Benign migratory glossitis is a condition that does not remain static. What does this statement mean?
- A variety of over-the-counter treatments are available for this condition.
  - Surgical intervention may be required.
  - Remission and changes in the surface of the tongue occur.
  - An intraoral habit is responsible for this condition.

ANS: C

Benign migratory glossitis (geographic tongue) is a condition that does not stay the same over time; remission and changes in the surface of the tongue occur. A condition that does not remain static does not refer to treatment protocol. A condition that does not remain static does not refer to treatment protocol. Intraoral habits are not related to benign migratory glossitis.

REF: Benign Conditions of Unknown Cause, page 24

OBJ: 7

62. Which statement about a palatal torus is *true*?
- A palatal torus is symptomatic.
  - A palatal torus appears as a radiolucent mass on a radiograph.
  - Palatal tori are typically bilateral, seen along the lingual side of the maxilla.
  - Palatal tori are inherited.

ANS: D

Palatal tori are inherited. Palatal tori are asymptomatic. A palatal torus appears as a radiopaque mass on a radiograph. Palatal tori can take on various shapes and sizes yet occur in the midline of the palate.

REF: Variants of Normal, page 21                      OBJ: 4

63. Serous fluid can typically be found in which lesion?
- Bulla
  - Lobule
  - Macule
  - Papule

ANS: A

Bullae are circumscribed, elevated lesions that usually contain serous fluid and resemble a blister. Lobules are segments or lobes that are part of a whole. Macules are areas distinguished by a different color than the surrounding tissue. Papules are small, circumscribed lesions that protrude above the surface.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 1  
OBJ: 1

64. Which term describes a lesion that displays a color different from surrounding tissue?
- Bulla
  - Lobule
  - Macule
  - Papule

ANS: C

Macules are areas distinguished by a different color than the surrounding tissue. Bullae are circumscribed, elevated lesions that usually contain serous fluid and resemble a blister. Lobules are segments or lobes that are part of a whole. Papules are small, circumscribed lesions that protrude above the surface.

REF: Vocabulary, Clinical Appearance of Soft Tissue Lesions, page 1  
OBJ: 1

65. Trying to establish the correct number of primary and permanent teeth present in a 7-year-old child may best be accomplished by which diagnostic component?
- Clinical
  - Historical
  - Radiographic
  - Differential

ANS: C

A radiographic examination including intraoral and extraoral images would provide sufficient information to establish the correct number of teeth present. The clinical diagnosis would be adequate to view only the erupted teeth, not the unerupted permanent teeth. Some historical data might be helpful in this case but would not be considered the best diagnostic component. Enough information should be present in the clinical and radiographic examinations that a differential diagnosis is not necessary.

