

K. J. Lee: Essential Otolaryngology and Head and Neck Surgery (IIIrd Ed)

Chapter 39: Multiple Choice Quiz

Answers are not given so as to offer the reader an opportunity to pursue each topic further. The editor feels that a question taken as an end in itself is of less educational value than when it is used as a "spring-board" to explore the whole subject.

1. Embryologically, melanomas are said to arise from:

- A. neurocrest cells
- B. ectodermal cells
- C. entodermal cells
- D. mesodermal cells
- E. none of the above.

A. Neurocrest cells. Melanocytes are believed to be derived from the neural crest cells that have migrated peripherally to the integument by the twelfth week of gestation. The melanocyte forms the pigment which is then transmitted to the malpighian cells of the basal layer of the skin.

2. Pseudoepithelial hyperplasia can be caused by:

- A. blastomycosis
- B. granular cell myoblastoma
- C. blastomycosis and granular cell myoblastoma
- D. sarcoid
- E. none of the above.

B. Granular cell myoblastoma.

Abrikossoff's Tumor (granular cell myoblastoma): Causes pseudoepithelial hyperplasia in the larynx, the site most favored in the larynx being the posterior half of the vocal cord. Three percent of granular cell myoblastoma progresses to malignancy. In order of decreasing frequency of involvement, the granular cell myoblastoma occurs in tongue, skin, breast, subcutaneous tissue, and respiratory tract.

3. The thyroid gland is supplied by:

- A. paired superior thyroid arteries
- B. paired inferior thyroid arteries
- C. unpaired thyroidea ima
- D. none of the above
- E. all of the above.

E. All of the above. The gland is richly supplied with blood by the paired superior and inferior thyroid arteries. The former is a branch of the external carotid artery, and the latter a branch of the thyrocervical trunk of the subclavian artery. In addition, the isthmus in some instances is supplied by the unpaired thyroidea ima, a branch of the aortic arch or the innominate artery. Superior, middle, and inferior thyroid veins drain the blood into the internal jugular and brachiocephalic veins.

4. Reverting to primitive cell type is called:

- A. dyskeratosis
- B. parakeratosis
- C. acanthosis
- D. anaplasia
- E. metaplasia.

5. Statistics have shown that:

A. 60% of parotid tumors are benign and 50% of the submaxillary tumors are malignant.

B. 50% of parotid and submaxillary tumors are benign.

C. 80% of parotid tumors are benign and 50% of submaxillary tumors are malignant.

D. 80% of parotid and submaxillary tumors are benign.

E. Acinic cell carcinomas of the parotid usually are located in the deep lobe.

6. The most common parotid lesion in children is:

- A. mixed tumor
 - B. lymphangioma and hemangioma
 - C. lymphoma
 - D. mucoepidermoid carcinoma
 - E. Warthin's tumor.
- B. Lymphangioma and hemangioma.

Hemangioma of the Parotid Gland. It is the most common tumor of the parotid in infancy. Goldman advocates prompt surgical excision as soon as definite growth is recognized, while others suggest waiting until age 5. Nussbaum et al reported cavernous hemangioma of the salivary gland in five adults. Infantile hemangiomas of the salivary gland are usually of the capillary type.

Lymphangioma. Lymphangioma is a congenital, benign, unilocular or multilocular, endothelium-lined, fluid-containing swelling of lymphatic origin. In 80% of the cases, the lesion is located in the neck. This condition is present at birth in 65% of the cases and would have manifested itself by age 2 in 90%. When symptomatic, they should be resected to prevent stridor and dysphagia in the infant. Resection should be performed carefully to spare all the vital structures. Lymphangioma has been said to be the most common tumor of the parotid gland in children.

7. Warthin's tumor of the parotid is most common in:

- A. the tail of the parotid in females over 60 years old
- B. the tail of the parotid in males over 60 years old
- C. the superficial lobe, equally distributed in both sexes
- D. the deep lobe in females
- E. young adult males.

8. Pleomorphic adenoma of the salivary glands consists of:

- A. ductal elements only
- B. predominance of lymphocytes
- C. epithelial and myoepithelial elements

D. cartilage rest cells

E. none of the above.

9. The half-life of T4 is:

A. 1-2 hours

B. 2-3 days

C. 6-7 days

D. 1-2 weeks

E. none of the above.

10. The stylopharyngeus is innervated by:

A. X

B. XI (bulbar root)

C. VII

D. mandibular division of X

E. IX.

11. The most common site of orbital floor fractures is:

A. anteromedial

B. anterolateral

C. posteromedial

D. posterolateral

E. variable.

12. The most common type of zygomatic fracture is:

A. arch fracture without displacement

B. trimalar fracture

C. body fracture without rotation

D. arch fracture with displacement

E. body fracture with rotation.

13. In order of frequencies, which one of the following is correct?

A. Condylar, body, angle, symphysis, alveolar F(x).

B. Condylar, ramus, symphysis, coronoid F(x).

C. Body, angle, ramus, symphysis F(x).

D. Symphysis, body, angle, coronoid F(x).

E. Condylar, alveolar, symphysis, body F(x).

A. Condylar, body, angle, symphysis, alveolar F(x). Condyle 36%, body 21%, angle 20%, parasymphyseal 14%, alveolar 3%, ramus 3%, coronoid 2%, symphyseal 1%.

14. In equivocal mandibular fracture, measuring the angle of the mandible is a helpful hint. The angle of a young child between 5-10 years old is approximately:

A. 90°

B. 110°

C. 175°

D. 140°

E. about the same as an edentulous patient.

15. Criteria for supraglottic laryngectomy in a supraglottic lesion include all except the lesion does not:

A. come within 5 cm of the foramen cecum

B. include the anterior commissure

C. involve either arytenoid

D. involve the apex of the pyriform sinus

E. involve the postcricoid area.

16. Sloughing of pedicle flaps usually is due to:

- A. tissue edema
- B. poor vascular supply
- C. constricting dressings
- D. radiated receptor site
- E. infection.

17. Which one of the following has been found to be deficient in patients with juvenile papilloma?

- A. Fe
- B. Mg
- C. Zn
- D. Gamma globulin
- E. Viral antibody.

18. One type of hemangioma which does not usually regress is:

- A. a hemangioma that grows aggressively during the first year of life
- B. the cavernous type
- C. the capillary type
- D. subglottic hemangioma
- E. spider hemangioma.

19. The most common type of tracheoesophageal fistula and esophageal atresia is:

- A. the upper esophagus is connected with the trachea while the lower segment ends in a blind pouch
- B. both upper and lower esophageal segments connect with the trachea
- C. neither segment connects with the trachea
- D. the upper esophagus ends in a blind pouch, the lower esophagus is connected with the trachea

E. completely variable.

21. Each of the following situations suggests a central lesion EXCEPT:

A. gaze nystagmus

B. Nylen-Aschan type II positional nystagmus

C. symmetrical optokinetic nystagmus

D. Nylen-Aschan type I positional nystagmus

E. fixation accentuates nystagmus or fixation fails to suppress nystagmus.

22. The foramen of Luschke:

A. is in the vicinity of the fissure of Santorini

B. transmits the chorda tympani nerve

C. transmits sympathetic fibers

D. transmits parasympathetic fibers

E. transmits both sympathetic and parasympathetic fibers.

23. The most common congenital pulmonary abnormality is found in the:

A. right lower lobe

B. right middle lobe

C. right upper lobe

D. left upper lobe

E. left lower lobe.

24. In a normal adult, which one of the following situations is correct?

A. The carotid body is more sensitive to oxygen tension than to CO₂ tension; the respiratory center is more sensitive to CO₂ tension than to oxygen tension, the carotid sinus has a regulatory function on blood pressure.

B. The carotid body has a regulatory function on blood pressure, the respiratory center is more sensitive to oxygen tension than to CO₂ tension, the carotid sinus is more sensitive to oxygen than to CO₂ tension.

C. The carotid body is more sensitive to CO₂ tension than to oxygen tension, the respiratory center is more sensitive to CO₂ tension than to oxygen tension, the carotid sinus has a regulatory function on blood pressure.

D. The carotid body is more sensitive to oxygen tension than to CO₂ tension, the respiratory center is more sensitive to oxygen tension than to CO₂ tension, the carotid sinus has a regulatory function on blood pressure.

E. The carotid body is equally sensitive to oxygen tension and CO₂ tension while the carotid sinus has a regulatory function on blood pressure.

25. Among the local anesthetic agents listed, the most toxic dose for a 70 kg adult is:

A. 100 mL of 0.5% procaine infiltration

B. 20 mL of 2% Xylocaine infiltration

C. 5 mL of 4% cocaine topically

D. 10 mL of 2% tetracaine infiltration

E. 20 mL of 2% Carbocaine infiltration.

26. A 40-year-old white male presents with a midline neck mass. Biopsy reveals a tumor showing calcification and the presence of psammoma bodies histologically. The most likely diagnosis is:

A. calcified tubercle

B. papillary carcinoma of the thyroid

C. medullary carcinoma of the thyroid

D. Hashimoto's thyroiditis

E. thyroid cyst.

B. Papillary carcinoma of the thyroid. Psammoma Bodies: These are found in papillary carcinoma of the thyroid.

27. Medullary carcinoma of the thyroid is believed to:

A. be thyrocalcitonin producing

B. have dense stroma with amyloid deposition and to be thyrocalcitonin producing

C. have scattered calcifications

D. have psammoma bodies

E. have none of the above.

28. Embryologically, carotid body tumors are believed to arise from:

A. neurocrest cells

B. ectodermal cells

C. entodermal cells

D. mesodermal cells

E. epithelial and myoepithelial cells.

29. Doubling the amplitude of vibration would cause a:

A. 10 dB increase in intensity

B. 6 dB increase in intensity

C. 50 dB increase in intensity

D. 27 dB increase in intensity

E. 30 dB increase in intensity.

30. All of the following are equivalents EXCEPT:

A. 0 dB at 1000 Hz

B. 10^{-16} W/cm²

C. 0.0002 dynes/cm²

D. 0.0002 microbar

E. 10^{-12} W/cm².

31. The combination of the tympanic membrane footplate transformer mechanism and the lever mechanism amplifies sound by:

A. 10 dB

B. 50 dB

C. 30 dB

D. 25 dB

E. 15 dB.

32. The area of the footplate is:

A. 3.5 mm^2

B. 2 mm^2

C. 5 mm^2

D. variable

E. 1 mm^2 .

33. The area of the round window is:

A. 3.5 mm^2

B. 2 mm^2

C. 5 mm^2

D. variable

E. 1 mm^2 .

34. Mikulicz's disease is commonly associated with an increased incidence of:

A. lymphoma

B. macroglobulinemia

C. hypoglobulinemia

D. lymphoma and macroglobulinemia

E. lymphoma and hypoglobulinemia.

35. The most common malignant tumor of the submaxillary gland is:

A. adenocystic carcinoma

B. squamous cell carcinoma

C. mucoepidermoid carcinoma

D. malignant mixed tumor

E. lymphoma

36. Brooke's tumor is:

A. of squamous cell origin

B. of ductal cell origin

C. of basal cell origin

D. a cartilaginous tumor

E. highly malignant.

37. A 65-year-old edentulous male suffered a bilateral telescoping subcondylar fracture. This is best treated by:

A. intermaxillary fixation with the help of gunning splints

B. bilateral open reduction with intermaxillary fixation for 6 weeks postoperatively

C. unilateral open reduction with fixation postoperatively for 3 weeks

D. bilateral open reduction and no fixation postoperatively

E. unilateral open reduction with fixation postoperatively for 6 weeks.

38. T3 resin uptake measures:

A. unoccupied protein-binding sites for T4

B. unoccupied protein-binding sites for T3

C. serum T3 level

D. serum rT3 level

E. free T3 level in serum.

39. Components of Graves' disease include:

A. hyperthyroidism

B. diffuse thyroid enlargement

C. infiltrative ophthalmopathy

D. infiltrative dermatopathy

E. all of the above.

40. The most common site of accessory salivary gland tumor is the:

A. soft palate

B. hard palate

C. sublingual area

D. buccal mucosa

E. posterior pharyngeal wall.

41. The Galen's anastomosis is the anastomosis between the:

A. IX and X nerves in the pharyngeal plexus

B. lesser superficial petrosal nerve and the sympathetic fibers

C. right and left superior laryngeal nerves

D. superior laryngeal nerve and the recurrent laryngeal nerve

E. superior thyroid artery and the inferior thyroid artery.

D. Superior laryngeal nerve and the recurrent laryngeal nerve. Galen's Anastomosis: An anastomosis between the superior laryngeal nerve and the recurrent laryngeal nerve.

42. Among the anatomic sites listed, hereditary lipoid proteinosis most commonly affects:

A. tongue

B. thyroid

C. larynx

D. mastoid air cells

E. nose.

43. Normal sweat chloride is:

- A. between 50 mEq/L and 100 mEq/L
- B. 120 mEq/L
- C. less than 50 mEq/L
- D. 75 mEq/L
- E. 150 mEq/L.

44. All of the following are considered adequate urine output for a patient EXCEPT:

- A. 1200 mL/24 hr
- B. 10 drops/min
- C. 30 mL/hr
- D. 30 drops/min
- E. none of the above.

45. Leukoplakia has all of the following EXCEPT:

- A. parakeratosis
- B. hyperkeratosis
- C. desmoplasia
- D. dyskeratosis
- E. a whitish color.

46. A 50-year-old black female presents with facial paralysis and a parotid mass. Biopsy of her mediastinum would reveal a mass which would have one of the following histologic characteristics:

- A. Schaumann's bodies
- B. Mikulicz's cells
- C. Verocay bodies
- D. Warthin-Finkeldey cells

E. Phylasiferous cells.

47. A 35-year-old white female presents with episodic vertigo, unilateral severe sensorineural hearing loss, unilateral tinnitus. Further audiometric examination revealed a high SISI score and a type II Bekesy's. A Silverstein's labyrinthotomy would reveal a fluid containing all of the following EXCEPT:

- A. succinate dehydrogenase
- B. malic dehydrogenase
- C. diaphorases
- D. potassium concentration of 150 mEq/L
- E. sodium concentration of 150 mEq/L.

48. A 43-year-old mother gave birth to a 9-lb girl. The child is mentally retarded and of short stature. At 15 years of age she still has not shown signs of frontal sinus development. This syndrome is often associated with:

- A. conductive hearing loss
- B. abnormal E chromosomes
- C. fishlike mouth
- D. acute leukemia
- E. macroglobulinemia.

49. A 12-year-old boy has recurrent pneumonitis, associated with eosinophilia. A question of parasitic involvement was raised. This has been referred to as:

- A. Adie's syndrome
- B. Loeffler's syndrome
- C. Kartagener's syndrome
- D. Wallenberg's syndrome
- E. right middle lobe syndrome.
- B. Loeffler's syndrome.

Adie's Syndrome. Adie's syndrome is characterized by decreased pupillary reaction and deep tendon reflex. The etiology is unknown.

Loeffler's Syndrome. This consists of pneumonitis characterized by eosinophiles in the tissues. This is possibly of parasitic etiology.

Kartagener's Syndrome. The symptoms are complete situs inversus associated with chronic sinusitis and bronchiectasis. This also is called Kartagener's triad.

Wallenberg's Syndrome. Also called syndrome of the posterior inferior cerebellar artery thrombosis or lateral medullary syndrome, this syndrome is due to thrombosis of the posteroinferior cerebellar artery giving rise to ischemia of the brain stem (lateral medullary region). Symptoms include vertigo, nystagmus, nausea, vomiting, Horner's syndrome, dysphagia, dysphonia, hypotonia, asthenia, ataxia, falling to the side of the lesion and loss of pain and temperature sense on the ipsilateral face and contralateral side below the neck.

Middle Lobe Syndrome. This is a chronic atelectatic process with fibrosis in one or both segments of the middle lobe. It is usually secondary to obstruction of the middle lobe bronchus by hilar adenopathy. The hilar adenopathy may be transient but the bronchiectasis that resulted persists. Treatment is by surgical resection.

50. A 36-year-old male has a long history of chronic suppurative otitis media. Two days ago he developed pain over the mastoid region with "picket fence" spiking fever. He is lethargic and toxic. Which of the signs would most likely be elicited?

- A. Kernig's sign
- B. Brudzinski's sign
- C. Hennebert's sign
- D. Wartenberg's sign
- E. Griesinger's sign.

51. Subclavian steal syndrome is associated with all of the following EXCEPT:

- A. nuchal rigidity
- B. intermittent vertigo
- C. blurred vision
- D. occipital headache
- E. pain in the upper extremity.

52. A 50-year-old French Canadian woman presents with ptosis and dysphagia. Family history revealed that her mother died of esophageal carcinoma and at least two-thirds of her relatives have had similar symptoms for varying durations. She most probably has:

- A. ocular pharyngeal syndrome
- B. Plummer-Vinson syndrome
- C. Patterson-Kelly syndrome
- D. achalasia
- E. scleroderma.

53. A 36-year-old woman was diagnosed as having a frontal lobe tumor. Among other symptom, she has anosmia, ipsilateral optic atrophy, and contralateral papilledema. This constellation of symptoms has been referred to as:

- A. Avellis' syndrome
- B. Tapia syndrome
- C. Vernet's syndrome
- D. Foster-Kennedy syndrome
- E. Collet-Sicard syndrome.

54. A 6-year-old girl is noted to have low-set ears, large ear lobes, possible ossicular deformity, web neck, short stature, and renal symptoms. Her chromosome abnormality is:

- A. XXY
- B. XO
- C. trisomy 21
- d. trisomy 13
- E. trisomy 18.

55. A 7-year-old Israeli boy is noted to have low-set ears, probable ossicular deformity, and to be of short stature. The geneticist concluded that the patient has a polysaccharide metabolic problem which is inherited autosomal recessively. Among other findings, which one of the following will be noted?:

- A. polydipsia, polyuria
- B. hypoglycemia
- C. chondroitin sulfate in the urine
- D. trypsin in the stool
- E. calcification of the sella.

56. Apert's syndrome (acrocephalosyndactyly) has all of the following characteristics EXCEPT:

- A. autosomal recessive
- B. hearing loss present at birth
- C. conductive hearing loss
- D. patent cochlear aqueduct
- E. flat audiometric pattern.

57. All of the following syndromes are associated with hearing loss and renal abnormalities EXCEPT:

- A. Apert's syndrome
- B. Weil's syndrome
- C. Turner's syndrome
- D. Leopard syndrome
- E. Fanconi's syndrome.

58. A 3-year-old white male is noted to have severe sensorineural hearing loss, retinitis pigmentosa, obesity, and diabetes. This is believed to be autosomal recessive. The most likely diagnosis is:

- A. Usher's syndrome
- B. Apert's syndrome
- C. Alstrom's syndrome
- D. Waardenburg's syndrome
- E. Wallenberg's syndrome.

62. The auricle is mainly supplied by:

- A. postauricular and facial arteries.
- B. postauricular artery and superficial temporal artery
- C. occipital and postauricular arteries
- D. occipital, postauricular, and facial arteries
- E. anterior tympanic and posterior tympanic arteries.

63. A 10-year-old white girl presents with a sudden onset of fever, loss of appetite, dysphagia, pharyngitis, mild abdominal pain, and nausea and vomiting. Vesiculopapular lesions measuring 1-2 mm in diameter are present on the oral mucosa. These lesions soon would break down giving rise to grayish yellow ulcers. The disease is thought to be caused by:

- A. virus herpes simplex
- B. Vincent's organisms
- C. Haemophilus influenzae
- D. Coxsackie virus
- E. measles.

64. Theoretically a patient with ossicular discontinuity with an intact tympanic membrane will present with a conductive loss of about:

- A. 45 dB
- B. 30 dB
- C. 60 dB
- D. 85 dB
- E. 50 dB.

65. The most frequent cause of death in acute otitis media is:

- A. sigmoid sinus thrombosis
- B. meningitis
- C. temporal lobe abscess
- D. cerebellar abscess
- E. brain abscess in general.

66. Other than coalescent mastoiditis, the most common complication of acute otitis media is:

- A. subdural abscess
- B. meningitis
- C. sigmoid sinus thrombosis
- D. extradural abscess
- E. temporal lobe abscess.

67. Other than meningitis, the most common cause of death in acute otitis media is:

- A. lateral sinus thrombophlebitis
- B. temporal lobe abscess
- C. cerebellar abscess
- D. extradural abscess

E. subdural abscess.

68. A 50-year-old white male presents with a suppurative left ear for 10 days. His temperature has spiked to 103° twice a day for the past 4 days. His hemoglobin is 10.5 g%. He appears emaciated: palpation of the mastoid process reveals edema and pain in this area. The most likely diagnosis is:

- A. mastoiditis
- B. lateral sinus thrombosis
- C. subdural abscess
- D. meningitis
- E. none of these.

69. A 45-year-old white, right-handed male developed right mastoiditis secondary to chronic otitis media. Culture grew *Pseudomonas* sp. In spite of aggressive treatment with carbenicillin (Geopen) and gentamicin, he developed severe headache, Jacksonian convulsions, rise in blood pressure, and slowing of the pulse rate. The neurologist entertained the diagnosis of right temporal lobe abscess. Besides other symptoms, he most probably would have:

- A. ataxia
- B. aphasia
- C. paresis and numbness of the left side
- D. spontaneous nystagmus
- E. all of the above.

70. A 20-year-old diabetic developed a fulminating coalescent mastoiditis. In this age group, the chances of having pneumatization of the petrous pyramid is:

- A. 10%
- B. 30%
- C. 50%
- D. 75%
- E. 90%.

71. A Pancoast's tumor of the lung is one:

- A. located in the right middle lobe
- B. located in the apex
- C. of "oat cell" type
- D. of "alveolar cell" type
- E. can be of any cell type.

72. A 27-year-old girl developed a slow-growing nontender mass in the parapharyngeal space. This mass can be palpated in the lateral pharyngeal wall as well as behind the angle of the mandible. The most likely pathologic diagnosis is:

- A. neurolemmoma
- B. mixed tumor
- C. fibroma
- D. leiomyoma
- E. lymphoma.

73. Subtotal thyroidectomy is preferred for treatment of Graves' disease in:

- A. patients of child-bearing age
- B. in those intolerant of antithyroid drugs
- C. failure of antithyroid drugs to induce remission
- D. noncompliers of drug instruction
- E. all of the above.

E. All of the above. Subtotal thyroidectomy is preferred for younger patients of child-bearing age; in patients in whom antithyroid drugs, despite prolonged use, have failed to induce a remission; in those intolerant of antithyroid drugs; in those fearful of radiation effects in any form; and in noncompliers of drug administration instructions.

74. A 20-year-old female developed a very slowly enlarging left malar region. A routine laboratory workup revealed elevated serum alkaline phosphatase, with normal Ca and P. Which one of the following situations is most likely?

- A. Increased osteoblastic activity
- B. Malignant degeneration
- C. Increased osteoclastic activity
- D. Increased osteoclastic and osteoblastic activity
- E. Part of the usual profile of this disease entity.

75. Squamous cell carcinoma has been reported in the auricle, external auditory canal, and middle ear. Among these regions the incidence of carcinoma of the middle ear is:

- A. 70%
- B. 50%
- C. 30%
- D. 10%
- E. 2%.

76. A 60-year-old alcoholic developed a squamous cell carcinoma of the hard palate. The primary and early site of lymphatic drainage would be:

- A. subdigastric
- B. retropharyngeal
- C. submaxillary
- D. subparotid
- E. high jugular chain.

77. An 80-year-old male has multiple areas of senile keratosis. He is concerned and consulted an otolaryngologist regarding the chances of malignant degeneration. A well-informed otolaryngologist would give an estimated figure of:

- A. 1% malignant degeneration rate
- B. 5% malignant degeneration rate

- C. 10% malignant degeneration rate
- D. 20% malignant degeneration rate
- E. 50% malignant degeneration rate.

78. A 32-year-old white male presents with multiple cysts of the jaw and multiple basal carcinomas of the skin. X-ray shows abnormal ribs and abnormal metacarpals. This condition is:

- A. autosomal recessive
- B. autosomal dominant
- C. nonhereditary
- D. associated with xeroderma pigmentosa
- E. sex-linked recessive.

79. Carcinoma of the nasopharynx often involves:

- A. the node of Rouvier
- B. the node of Delphian
- C. the node of Krause
- D. all of these
- E. none of these.

A. The node of Rouvier.

Rouvier's Node: Lateral retropharyngeal node. It is a common target of metastases in nasopharyngeal carcinoma.

80. A 50-year-old male presents with unilateral left nasal obstruction and left facial swelling. The Ohngren's line is used to:

- A. stage the tumor
- B. correlate site of tumor and its aggressiveness
- C. classify metastasis
- D. classify the histologic nature of the tumor

E. none of the above.

81. A student of head and neck oncology should be aware of the lymphatics. It has been demonstrated that certain regions have richer lymphatic drainage than others. In order of decreasing amount of lymphatics, the following is correct:

- A. pyriform sinus, base of tongue, supraglottic, subglottic
- B. base of tongue, pyriform sinus, supraglottic, subglottic
- C. pyriform sinus, subglottic, supraglottic, glottic
- D. transglottic, subglottic, supraglottic, glottic
- E. postcricoid, pyriform sinus, supraglottic, subglottic.

82. Referred otalgia is frequently encountered in an otolaryngology practice. Referred pain from a base of tongue lesion involves the:

- A. gasserian ganglion
- B. petrosal ganglion
- C. sphenopalatine ganglion
- D. otic ganglion
- E. nodose ganglion.

83. A 50-year-old male with a left false cord squamous cell carcinoma is undergoing pulmonary function testing as a preoperative workup. The vital capacity is:

- A. the same as tidal volume
 - B. the sum of tidal volume and inspiratory reserve volume
 - C. the sum of tidal volume and residual volume
 - D. the sum of tidal volume, inspiratory reserve volume, and expiratory reserve volume
 - E. the same as inspiratory capacity.
- D. The sum of tidal volume, inspiratory reserve volume, and expiratory reserve volume.

84. A 60-year-old Southern male has worked on a cotton plantation and in a cotton plant for the past 40 years. He was admitted to a hospital recently for chronic cough and pulmonary insufficiency. X-ray showed scattered diffuse infiltrates and emphysematous changes. This condition has been referred to as:

- A. bagassosis
- B. bysinosis
- C. berylliosis
- D. anthracosis
- E. sarcoidosis.
- A. Bagassosis.

85. The SISI test is characterized by all of the following EXCEPT:

- A. SISI score higher than 60% in sensory hearing loss
- B. lone SISI score in typical neurallesion
- C. the test is performed at 20 dB above threshold
- D. the test is performed at 2000 Hz
- E. the test can be used in both unilateral hearing loss and bilateral hearing loss.

86. The tone decay test is characterized by all of the following EXCEPT:

- A. performed at 20 dB above threshold
- B. a tone decay of 40 dB suggests a neural pathology
- C. the score is the number of decibel increase that is needed to maintain the tone for 60 seconds
- D. can be performed at any frequency
- E. patients with Ménière's disease usually do not have a high tone decay score.

87. Interaural attenuation is about:

- A. 15 dB
- B. 20 dB

- C. 30 dB
- D. 50 dB
- E. 70 dB.

89. A 30-year-old female is being evaluated by an otolaryngologic allergist for seasonal "sneezing, allergic rhinitis, watery eyes, and itchy nose". Her symptoms are present mainly in the spring. She is most likely allergic to:

- A. ragweed
- B. grass pollen
- C. tree pollen
- D. mold
- E. all of these.

90. During the process of anaphylactic shock, all of the following take place EXCEPT:

- A. peripheral vasodilatation
- B. release of histamine
- C. injury to the vascular endothelium
- D. intravascular coagulation
- E. smooth muscle contraction.

91. Antihistamine is prescribed by many otolaryngologists for allergic and vasomotor rhinitis. The mechanism of action of this medication:

- A. inhibits the formation of histamine
- B. hydrolyzes histamine
- C. competes with histamine for the tissue sites
- D. is anti-inflammatory
- E. is unknown.

92. Glucocorticoids have been used by many otolaryngologists for many "allergic" states. The rationale for this practice embraces all the following EXCEPT:

- A. anti-inflammatory
- B. alters the antibody-antigen reaction
- C. releases enzymes that metabolize histamine
- D. retards the formation of histamine in the mast cells
- E. suppresses tissue edema.

93. A young otolaryngologist is performing a mastoid-tympanoplasty under general anesthesia utilizing halothane. A safe amount of 1% lidocaine (Xylocaine) with 1:100,000 epinephrine for infiltration would be no more than:

- A. 1 mL
- B. 5 mL
- C. 10 mL
- D. 30 mL
- E. 50 mL.

94. The muscles involved in the function of the eustachian tube include all of the following EXCEPT:

- A. tensor tympani
 - B. tensor palati
 - C. levator palati
 - D. salpingopharyngeus
 - E. salpingopalatus.
- A. Tensor tympani.

95. A 19-year-old college student presents with peritonsillar abscess. His trismus is particularly due to involvement of:

- A. external pterygoid muscle
- B. internal pterygoid muscle

- C. masseter muscle
- D. buccinator muscle
- E. palatoglossus and palatopharyngeus muscles.

96. The middle thyroid artery is derived from:

- A. thyrocervical trunk
- B. external carotid artery
- C. superior thyroid artery
- D. inferior thyroid artery
- E. none of these.

97. The jugular foramen is bounded by the:

- A. occipital bone only
- B. temporal bone only
- C. sphenoid bone only
- D. occipital bone medially and temporal bone laterally
- E. sphenoid bone medially and temporal bone laterally.
- D. occipital bone medially and temporal bone laterally

98. All of the following pass through the jugular foramen EXCEPT:

- A. inferior petrosal sinus
- B. IX
- C. X
- D. posterior meningeal artery
- E. XII.

The jugular foramen is bound medially by the occipital bone and laterally by the temporal bone. The foramen is divided into anteromedial (pars nervosa) and posterolateral (pars vascularis) areas by a fibrous or bony septum. The medial area transmits nerves IX, X, and XI as well as the inferior petrosal sinus. The posterior compartment transmits the internal

jugular vein and the posterior meningeal artery. The right foramen is usually slightly larger than the left foramen.

99. The facial nerve trunk can be located:

- A. medial to the styloid process
- B. 6-8 mm medial to the petrotympanic fissure
- C. 6-8 mm inferior to the petrotympanic fissure
- D. 6-8 mm inferomedial to the tympanomastoid fissure
- E. superior to the tragal cartilage.
- D. 6-8 mm inferomedial to the tympanomastoid fissure.

In parotid surgery, the facial nerve can be identified at 6-8 mm below the inferior "drop off" of the tympanomastoid fissure. This was described by H. G. Tabb.

100. A 35-year-old female with a past history of heavy smoking presents with intermittent hemoptysis. The most likely diagnosis is:

- A. bronchiectasis
- B. bronchial adenoma
- C. tracheobronchitis
- D. tuberculosis
- E. mitral stenosis.

101. The blood supply of the esophagus includes all EXCEPT:

- A. inferior thyroid artery
- B. internal mammary artery
- C. intercostal artery
- D. left gastric artery
- E. left inferior phrenic artery.

102. The most common site of esophageal carcinoma is:

- A. upper one-third
- B. middle one-third
- C. lower one-third
- D. cervical
- E. esophagogastric junction.

103. Anomaly of the great vessels is one of the common causes of dysphagia and/or dyspnea. The most frequent type of this is:

- A. anomalous innominate artery
- B. double aortic arch
- C. anomalous subclavian artery
- D. right aortic arch
- E. pulmonary artery compression.

104. A 30-year-old black male presents with dysphagia. Thorough diagnostic studies reveal a posterior mediastinal tumor. The most likely preoperative diagnosis would be:

- A. dermoid or teratoma
- B. lymphoma
- C. bronchial cyst
- D. pericardial cyst
- E. neurolemmoma.

105. Which one of the following is correct?

- A. The right middle lobe has three segments, right lower lobe has four segments.
- B. The left upper lobe has three segments, left lower lobe has four segments, right upper lobe has two segments.
- C. The right upper lobe has three segments, right lower lobe has five segments, left upper lobe has four segments.

- D. The left lower lobe has three segments and right middle lobe has three segments.
- E. Right lower lobe has four segments and left lower lobe has four segments.

106. The PTT test measures all the factors listed in:

- A. VII, VIII, IX, X, XI, XII
- B. V, VIII, IX, X, XI, XII
- C. V, VII, IX, X
- D. VII, VIII, X, XI, XII
- E. V, IX, X, XI, XII.

107. Christmas disease or hemophilia B is:

- A. autosomal recessive and lack of Factor IX
- B. sex-linked recessive and lack of Factor IX
- C. autosomal recessive and lack of Factor XI
- D. sex-linked recessive and lack of Factor XI
- E. sex-linked recessive and lack of Factor VIII.

108. A 20-kg boy underwent tonsillectomy and adenoidectomy. The estimated blood loss was 500 mL. This represents:

- A. 35% of his blood volume; he should require transfusion therapy
- B. 35% of his blood volume; he should require no transfusion therapy
- C. 20% of his blood volume; he should require transfusion therapy
- D. 20% of his blood volume; he should require no transfusion therapy
- E. 15% of his blood volume; he should require no transfusion therapy.

109. Chloromycetin:

- A. is bactericidal and it disrupts the cell wall
- B. is bacteriostatic and it disrupts the cell wall
- C. is bactericidal and it disrupts protein synthesis

D. is bacteriostatic and it disrupts protein synthesis

E. disrupts the cell membrane.

110. Inner ear congenital anomalies have been classified by otologic histopathologists. The Schiebe's type demonstrates:

A. complete bony and membranous degeneration

B. incomplete bony and membranous degeneration

C. membranous cochlear and saccular degeneration

D. membranous vestibular aplasia

E. membranous cochlear aplasia.

111. The inner ear anomaly secondary to maternal rubella is most similar to the type classified as:

A. Michel's

B. Mundini-Alexander

C. Schiebe's

D. Bing-Siebermann

E. Alexander's.

112. An otolaryngologist counseling the parents of a congenitally deaf child was asked the frequency of a "deaf" gene in the general population. The answer should be one in:

A. 100 people carries a recessive deaf gene

B. 50 people carries a recessive deaf gene

C. 25 people carries a recessive deaf gene

D. 8 people carries a recessive deaf gene

E. 4 people carries a recessive deaf gene.

113. A 43-year-old mother gave birth to a 9-lb girl. The child is mentally retarded and of short stature. At 15 years of age she still has not shown signs of frontal sinus development. This syndrome is due to:

- A. abnormal G group chromosomes
- B. abnormal E group chromosomes
- C. Patau's syndrome
- D. XO
- E. trisomy 17.

114. A young expectant housewife contracted rubella in the first trimester. She is frightened and consulted the obstetrician regarding the wisdom of a therapeutic abortion. Among weighing the chances of other anomalies, the obstetrician wants to know the risk of hearing loss in this newborn. It is:

- A. 75%
- B. 50%
- C. 40%
- D. 20%
- E. 10%.

115. An ataxic 30-year-old male died of renal failure. At autopsy he was noted to have cystic kidneys, angioma of the cerebellum, and scattered petechiae of the skin. This condition has been referred to as:

- A. Rendu-Osler-Weber syndrome
- B. Sturge-Weber syndrome
- C. neurofibromatosis
- D. Hippel-Lindau disease
- E. Stevens-Johnson syndrome.

116. Jervell-Lang-Nielson syndrome includes all of the following characteristics EXCEPT:

- A. autosomal recessive
- B. bilateral deafness
- C. renal failure
- D. recurrent syncope
- E. abnormal ECGs.

117. A mentally retarded 10-year-old child is noted to have mixed hearing loss, exophthalmos, parrot-beaked nose, small maxilla, and mandibular prognathism. This syndrome is autosomal dominant and is called:

- A. Crouzon's disease
- B. Treacher Collin's disease
- C. Mohr's syndrome
- D. Pendred's syndrome
- E. Pierre Robin syndrome.

118. Trautmann's triangle is:

- A. formed by the three semicircular canals
- B. formed by the superior petrosal sinus, sigmoid sinus, and the bony labyrinth
- C. formed by the tegment and the sigmoid sinus
- D. formed by the spine of Henle, temporal line, and posterior osseous external auditory canal
- E. formed by the superior petrosal sinus, inferior petrosal sinus, and the sigmoid sinus.

120. Muscles attached to the temporal bone include all of the following EXCEPT:

- A. posterior digastric muscle
- B. temporal muscle
- C. longus capitis muscle

D. sternocleidomastoid muscle

E. trapezius muscle.

121. All of the following are attached to the malleus EXCEPT:

A. lateral malleal ligament

B. superior malleal ligament

C. anterior malleal ligament

D. posterior malleal ligament

E. tensor tympani tendon.

122. The works of Bruce Proctor demonstrated that there are:

A. 5 malleal folds and 4 incudal folds

B. 4 malleal folds and 4 incudal folds

C. 4 malleal folds and 3 incudal folds

D. 5 malleal folds and 5 incudal folds

E. 3 malleal folds and 2 incudal folds.

123. The anterior pouch of von Troeltsch is between the:

A. pars flaccida and superior malleal fold

B. pars tensa and anterior malleal fold

C. pars tensa and anterior malleal ligament

D. pars flaccida and anterior malleal ligament

E. short process of the malleus and chord tympani.

124. Prussak's space is bounded by:

A. lateral malleal fold, superior malleal ligament, neck of malleus, and Shrapnell's membrane

B. pars flaccida and anterior malleal fold

C. pars tensa and anterior malleal fold

D. lateral malleal fold, lateral process of the malleus, the neck of the malleus, and Shrapnell's membrane

E. lateral malleal fold, lateral process of the malleus, the long process of the malleus, and pars tensa.

125. The blood supply of the middle ear and mastoid includes all of the following EXCEPT:

A. caroticotympanic artery

B. middle meningeal artery

C. stylomastoid artery

D. deep auricular artery

E. ascending pharyngeal artery.

126. Russell's bodies are found in:

A. rhinoscleroma

B. rhinosporosis

C. ameloblastoma

D. acoustic neurinoma

E. papillary carcinoma of the thyroid.

A. Rhinoscleroma. Russell's Bodies: Eosinophilic, round structures, associated with plasma cells found in rhinoscleroma.

127. A 40-year-old male presents with recurrent papilloma of the left nasal fossa. He reportedly had two previous intranasal surgical excisions. The biopsy report indicated it to be inverting papilloma. In counseling the patient regarding surgical therapy, the otolaryngologist was asked about the risk of this lesion turning malignant. The answer is:

A. 0.1%

B. 4%

C. 13%

D. 20%

E. 50%.

128. The cells described in the lesion of Ques. 127 are rich in:

- A. lipids
- B. hyaluronic acid
- C. chondroitin sulfate
- D. glycogen
- E. none of these.

129. A young patient is noted to have dysphagia, regurgitation, but no dyspnea. Barium swallow and angiography revealed an indentation of the posterior esophagus. This condition could be:

- A. double aortic arch
- B. anomalous innominate artery
- C. dysphagia lusoria
- D. scleroderma
- E. Barrett's syndrome.

130. A 10-year-old boy was brought to see an otolaryngologist because of unilateral ptosis since birth. However, upon opening the lower jaw to the contralateral side, the ptotic lid is elevated. A paternal uncle has the same symptoms. This pattern of symptomatology has been referred to as:

- A. Marcus' Gunn's syndrome
- B. Horner's syndrome
- C. Wartenberg's syndrome
- D. Melkerson's syndrome
- E. Richards-Rendell syndrome.

131. The axillary sheath is an extension of:

- A. the superficial layer of the deep fascia
- B. the visceral fascia
- C. the pretracheal fascia

D. the prevertebral fascia

E. none of the above.

132. In studying achondroplastic dwarfs, it is of interest to determine the derivation of the various bones. All of the following are membranous EXCEPT:

A. sphenoid

B. frontal

C. mandible

D. zygoma

E. mastoid process.

133. A 16-year-old girl was hit in the left eye by a golf ball. She suffered a left blow-out fracture that necessitated surgical correction. At the time of surgery, it is not only important to know the anatomic landmarks but the nerves and vessels associated with each landmark. The superior orbital fissure transmits all of the following EXCEPT:

A. III

B. IV

C. VI

D. V second division

E. ophthalmic vein.

D. V second division.

134. Congenital esophageal stenosis is a very rare condition. It is most commonly located at the:

A. cervical esophagus and treated with surgery

B. cervical esophagus and treated with dilatation

C. junction of the middle and distal thirds and best treated with dilatation

D. esophagogastric junction and best treated with surgery

E. esophagogastric junction and best treated with dilatation.

135. An otolaryngology resident rotating through a large facial deformity clinic will see more patients having a:

- A. cleft lip with cleft palate than having a cleft lip alone
- B. cleft lip than having a cleft palate
- C. cleft palate than having a cleft lip and cleft palate
- D. cleft lip than having cleft lip with cleft palate
- E. cleft palate than having a cleft lip.

A. Cleft lip with cleft palate than having a cleft lip alone.

E. Cleft palate than having a cleft lip.

Cleft lip with cleft palate is the most common; cleft palate alone is next; cleft lip alone is the least common.

136. A 45-year-old male was admitted by the internist to the hospital because of ascites, diarrhea, asthmalike symptoms, and episodic flushing. He also was noted to be hoarse and on physical examination a mass was noted on the right true cord. He has a past history of having an intra-abdominal tumor removed. A biopsy was taken of this tumor of the larynx and it was not a squamous cell carcinoma. This tumor most likely secretes:

- A. epinephrine
- B. norepinephrine
- C. thyrocalcitonine
- D. serotonin
- E. histamine.
- D. Serotonin.

Carcinoid Syndrome. The symptoms include episodic flushing, diarrhea, and ascites. The tumor secretes serotonin. The treatment is wide excision. The tumor may give a positive DOPA reaction.

137. A 9-year-old girl was noted to have multiple recurrent upper respiratory and lower respiratory infections. She has had three nasal polypectomies in the past. She is treated with high-protein, low-fat diet with supplementary water-soluble vitamins and pancreatic extracts. Which one of the following describes her condition?

- A. Autosomal-recessive inheritance
- B. Elevated trypsin
- C. Serotonin noted in the stool in 10-15% of patients with this disease
- D. Chondroitine sulfate can be measured in the urine
- E. None of the above.

138. A 6-year-old girl was referred to an otolaryngologist because of hearing loss. Audiometric studies revealed a 40 dB conductive loss in the left ear. She also was noted to have downward-sloping palpebral fissures, depressed cheek bones, deformed pinnae, receding chin, and large fishlike mouth. She has:

- A. Crouzon's disease
- B. Pierre Robin syndrome
- C. Franceschetti's syndrome
- D. Mohr's syndrome
- E. none of these.

39. A 65-year-old refugee from Cuba seeks the help of an otolaryngologist because of nasal crusting and nasal obstruction. On examination he was noted to have atrophic rhinitis. One of the organisms causing this condition is:

- A. *Klebsiella ozaenae*
- B. *Klebsiella pneumoniae*
- C. *Klebsiella rhinoscleromatis*
- D. *Rhinosporidium seeberi*
- E. *Rhinosporidium kinealyi*.

140. Surgical treatment is indicated in patients with thyroiditis:

- A. to relieve pressure symptoms

- B. to exclude malignancy
- C. for cosmetic reasons
- D. none of the above
- E. all of the above.

141. A 35-year-old female presents with vague vertiginous symptoms and abnormal articulation. She was noted to have spontaneous nystagmus, scanning speech, intention tremor, and mild ataxia. A likely diagnosis is:

- A. myasthenia gravis
- B. amyotrophic lateral sclerosis
- C. multiple sclerosis
- D. bulbar polio
- E. Wallenberg's syndrome.

42. Oroantral fistulae are encountered in both an otolaryngologic and an oral surgical practice. The tooth most commonly incriminated for this pathologic entity is:

- A. canine
- B. first premolar
- C. second premolar
- D. first molar
- E. second molar.

143. The parasympathetic secretory fibers to the parotid are carried by:

- A. greater superficial petrosal nerve
- B. chorda tympani
- C. auriculotemporal nerve
- D. branches of V (second division)
- E. none of the above.

144. The solitary tract nucleus is the nucleus of:

- A. secretory fibers to the lacrimal gland
- B. secretory fibers to the salivary gland
- C. taste fibers of VII
- D. taste fibers of IX
- E. taste fibers of VII and IX.

145. The Edinger-Westphal nucleus is the:

- A. motor nucleus of III
- B. parasympathetic nucleus of III
- C. motor nucleus of V
- D. sensory nucleus of V
- E. secretory nucleus of IX.

146. The innervation of the intrinsic laryngeal muscles is from the:

- A. glossopharyngeal nerve
- B. vagus nerve
- C. bulbar portion of the accessory nerve
- D. cervical portion of the accessory nerve
- E. recurrent laryngeal nerve only.

147. Cavernous sinus thrombosis is more often than not a fatal complication of ethmoiditis. All of the following structures are in intimate relationship with this sinus EXCEPT

- A. internal carotid artery
- B. ophthalmic artery
- C. II nerve
- D. III nerve

E. V nerve.

? ? ? E. V nerve. V1 is involved not V.

148. All of the following constitute the muscles of the uvula EXCEPT:

A. palatoglossus

B. muscle uvula

C. tensor palati

D. levator palati

E. stylopharyngeus.

E. Stylopharyngeus.

149. The pterygomandibular raphe is made up of the:

A. medial and lateral pterygoid muscles

B. buccinator and the superior constrictor muscles

C. middle constrictor muscle and the posterior pharyngeal wall

D. superior constrictor muscle and the posterior pharyngeal wall

E. superior and middle constrictor muscles.

B. Buccinator and the superior constrictor muscles.

150. The anterior and posterior ethmoidal foramina are located within the:

A. frontal bone

B. ethmoid bone

C. sphenoid bone

D. lacrimal bone

E. nasal bone.

151. The blood supply of the nasopharyngeal tonsil includes all of the following EXCEPT:

- A. ascending palatine artery
- B. ascending pharyngeal artery
- C. internal maxillary artery
- D. thyrocervical trunk
- E. lingual artery.

152. The tonsils are supplied by many vessels, but the main blood supply is from:

- A. facial artery
- B. lingual artery
- C. internal maxillary artery
- D. ascending pharyngeal artery
- E. none of these.

153. Zenker's diverticulum is one of the causes of dysphagia. It commonly occurs at the so-called Killian's dehiscence. This area of weakness is between:

- A. the cricopharyngeus and the muscles of the esophagus
- B. the cricopharyngeus and the inferior constrictor
- C. the cricopharyngeus and the thyropharyngeus muscle
- D. the middle and inferior constrictors
- E. none of the above.

154. A 45-year-old female gives a history of recurrent parotid swelling with mild pain. Examination revealed an inflamed Stensen's duct. No opaque calculus was identified. Sialography revealed chronic sialectasis. Culture of the ductal orifice during an exacerbation would most likely yield:

- A. beta-hemolytic streptococcus, group A
- B. Streptococcus viridans
- C. Staphylococcus albus

D. Staphylococcus aureus

E. Pneumococcus.

155. An otolaryngologist was asked to see a newborn with a "catlike" cry. He appeared to be microcephalic with cleft lip and palate. He had mild inspiratory stridor which the otolaryngologist diagnosed as laryngomalacia. This constellation of symptoms is due to abnormality of:

A. B group of chromosomes

B. D group of chromosomes

C. E group of chromosomes

D. G group of chromosomes

E. none of these.

A. B group of chromosomes.

Cri du Chat Syndrome. A condition caused by a B group chromosome with a short arm, its symptoms are mental retardation, respiratory stridor, microcephaly, hypertelorism, midline oral clefts, and laryngomalacia with poor approximation of the posterior vocal cords.

156. It is not infrequent for a pathologist to notice Trichinella within muscle tissues. A certain percentage of routine autopsies have yielded this finding. This figure is estimated to be:

A. 1%

B. 5%

C. 15%

D. 30%

E. 50%.

157. The greater cornu of the hyoid bone is believed to be derived from the:

A. first branchial arch

B. second branchial arch

C. third branchial arch

D. third branchial pouch

E. fourth branchial arch.

159. The oral tongue is a(n):

A. ectodermal derivative

B. entodermal derivative

C. mesodermal derivative

D. ectodermal and mesodermal derivative

E. entodermal and mesodermal derivative.

160. The inferior turbinate is believed to be derived from:

A. first ethmoturbinal

B. second ethmoturbinal

C. third ethmoturbinal

D. nasoturbinal

E. maxilloturbinal.

E. Maxilloturbinal.

Embryonic Anlagen and Their Derivatives

Maxilloturbinal	Inferior concha
First ethmoturbinal	Middle concha
Second and third ethmoturbinal	Superior concha
Fourth and fifth ethmoturbinal	Supreme concha
Nasoturbinal	Agger nasi area.

161. Certain parts of the temporal bone are derived from cartilage while other parts are membranous bone. All of the following are membranous bone EXCEPT:

A. petrous pyramid

B. squamos

C. tympanic ring

D. osseous canal

E. bony modiolus.

162. The concha is derived from the:

A. first branchial arch

B. first branchial groove

C. second branchial arch

D. second branchial groove

E. second branchial pouch.

163. The first of the membranous labyrinth to appear is the:

A. cochlea

B. saccule

C. utricle

D. endolymphatic duct

E. cochlear aqueduct.

164. A 12-year-old white male presents with recurrent suppuration from his left ear and exophthalmos. Examination revealed a normal tympanic membrane with polyps in the osseous external auditory canal. Mastoid X-ray was unremarkable though some "punched out" lesions were noted in the occipital and parietal regions. Upon closer questioning he was found to have diabetes insipidus. The most likely diagnosis is:

A. neurofibromatosis

B. Hand-Schüller-Christian disease

C. pituitary adenoma

D. "canal" cholesteatoma

E. polyostotic fibrous dysplasia.

165. The preepiglottic space is an important anatomic landmark in regard to the spread of laryngeal carcinoma. It is bounded by all of the following EXCEPT:

- A. vallecula
- B. hyoid bone
- C. thyrohyoid membrane
- D. hyoepiglottic ligament
- E. pharyngoepiglottic ligament.

166. The most common cause of chronic laryngeal stenosis is:

- A. trauma
- B. high tracheotomy
- C. congenital
- D. tuberculosis
- E. syphilis.

167. A 60-year-old depressed woman drank "Drano" in a suicidal attempt. Fortunately, she was brought to the emergency room less than 1 hour after ingestion. On esophagoscopy definite burns were ascertained. The esophagus is weakest:

- A. one hour after ingestion
- B. first 48 hours after ingestion
- C. first week after ingestion
- D. second week after ingestion
- E. fourth week after ingestion.

168. A 60-year-old heavy smoker gave a history of 1 month's hoarseness. Examination revealed a fungating, warty, well-differentiated squamous cell carcinoma of the left true cord. The anterior commissure was clear. The cord was somewhat fixed. No lymphadenopathy was noted. The diagnosis of verrucous carcinoma was made histologically. This should be treated with:

- A. radiation
- B. radiation and laryngectomy

- C. laryngectomy
- D. hemilaryngectomy
- E. hemilaryngectomy and left radical neck dissection.

169. Congenital laryngeal cyst is most frequently found in:

- A. the epiglottis
- B. the aryepiglottic folds
- C. the glottis
- D. the subglottis
- E. variable.

170. Upon phonation, indirect laryngoscopy revealed incomplete closure of the posterior larynx. Which one of the following intrinsic muscles is paralyzed?

- A. Interarytenoideus muscle
- B. Lateral cricoarytenoid muscle
- C. Thyroarytenoid muscle
- D. Cricothyroid muscle
- E. Posterior cricoarytenoid muscle.

171. Pseudohyperparathyroidism is the syndrome resulting from:

- A. laboratory error
- B. elevated uric acid
- C. secretion of PTH-like substances from nonparathyroid tumors
- D. excess calcium ingestion
- E. excess vitamin D ingestion.

C. Secretion of PTH-like substances from nonparathyroid tumors. Pseudohyperparathyroidism refers to the hyperparathyroid state resulting from the secretion of parathormone or parathormonelike substance by a variety of nonparathyroid tumors.

172. Infectious mononucleosis has been associated with all of the following EXCEPT:

- A. ruptured spleen
- B. Guillain-Barre syndrome
- C. hepatomegaly
- D. exophthalmos
- E. Paul-Bunnell test.

173. A diabetic mother gave birth to a premature baby who developed severe respiratory distress. The baby was treated with humidified oxygen. In view of an otherwise negative physical examination, the most likely diagnosis was idiopathic respiratory distress syndrome. The pulmonary tissues in this disease lack:

- A. creatinine phosphokinase
- B. alpha-lecithin
- C. acid mucopolysaccharides
- D. trypsin
- E. none of these.

174. Cupulolithiasis is an entity believed to be due to:

- A. dislodgement of the statoconia of the saccule to the horizontal canal
- B. dislodgement of the statoconia of the saccule to the posterior canal
- C. dislodgement of the statoconia of the utricle to the horizontal canal
- D. dislodgement of the statoconia of the utricle to the posterior canal
- E. free-floating statoconia in all three semicircular canals.

175. Isolated otosclerosis of the footplate is encountered in approximately:

- A. 50% of the cases
- B. 30% of the cases
- C. 10% of the cases
- D. 5% of the cases

E. 1% of the cases.

176. The mother of a family of four has clinical otosclerosis. All four children are in the first decade. What are the chances of the children having clinical otosclerosis ultimately? The father is asymptomatic.

A. 75%

B. 60%

C. 50%

D. 20%

E. 5%.

177. The maximum output of a 512 tuning fork is:

A. 50 dB

B. 60 dB

C. 70 dB

D. 80 dB

E. 90 dB.

178. The maximum increase in pressure occurs when the sound has a wave-length x times that of the length of the external auditory canal. The value of x is:

A. 1

B. 2

C. 3

D. 4

E. 10.

179. Streptomycin sulfate has successfully been used to treat bilateral incapacitating Ménière's disease. Which part of the membranous labyrinth is most sensitive to this medication?

A. Endolymphatic duct and sac

B. Semicircular canals

- C. Sacculle
- D. Utricle
- E. Cochlea.

180. A 32-year-old man has a two-month history of hoarseness. Direct laryngoscopy revealed a mass in the left posterior larynx on the true cord. Biopsy is as shown. This lesion is considered to have a potential for malignant degeneration. The incidence for this has been estimated to be:

- A. 0.5%
- B. 1%
- C. 3%
- D. 10%
- E. 15%.

181. Anosmia has been associated with all of the following EXCEPT:

- A. Turner's syndrome
- B. Kalman's syndrome
- C. Foster-Kennedy syndrome
- D. atrophic rhinitis
- E. vitamin E deficiency.

182. The causes for macroglossia include all of the following EXCEPT:

- A. myxedema
- B. amyloidosis
- C. Behcet's syndrome
- D. von Gierke's disease
- E. tertiary syphilis.

183. All of the following diseases may have sensorineural hearing loss EXCEPT:

- A. brucellosis
- B. myxedema
- C. Wilson's disease
- D. trichinosis
- E. relapsing polychondritis.

184. The most comfortable and healthy environment is:

- A. 50% humidity at 70-75°F
- B. 70% humidity at 70-75°F
- C. 30% humidity at 70-75°F
- D. 10% humidity at 80°F
- E. none of these.

185. The following statements are consistent with Ewald's laws EXCEPT:

- A. the horizontal canal is maximally stimulated by ampullopetal flow
- B. the posterior canal is maximally stimulated by ampullofugal flow
- C. when a labyrinth is maximally stimulated, it elicits nystagmus toward itself
- D. the superior canal is maximally stimulated by ampullofugal flow
- E. the utricle and saccule are maximally stimulated by ampullopetal flow.

186. A 42-year-old female presents with bilateral sensorineural hearing loss, saddle nose, tender auricle, and hoarseness. Among other findings she may be noted to have:

- A. increase in urinary chondroitin sulfate
- B. increase in urinary acid mucopolysaccharide
- C. increase in glycogen content in the pathologic cells
- D. increase in mucopolysaccharides in the subepithelial tissues

E. increase in amount of trypsin in her stool.

187. A 20-year-old boy was noted to have cafe au lait spots throughout his trunk and extremities. He has multiple subcutaneous nodules and has elevated diastolic blood pressures. At the age of 15 he was operated upon for intussusception. There is a definitive positive familial history for similar disorders. His hypertension is most likely secondary to:

- A. pheochromocytoma
- B. renal disease
- C. early onset arteriosclerotic vascular disease
- D. insensitive carotid sinus apparatus
- E. unknown etiology.

188. The membranous labyrinth is derived from:

- A. ectoderm
- B. mesoderm
- C. entoderm
- D. ectoderm and mesoderm
- E. ectoderm and entoderm.

189. The Reinke's space in the larynx is:

- A. located in the ventricle
- B. similar to the preepiglottic space
- C. perpendicular to the long axis of the true cord
- D. limited above and below by the linea arcuata
- E. situated between the deeper elastic layer and thyroarytenoid muscle.

190. A 32-year-old woman underwent an uneventful stapedectomy. She experienced mild dizziness and sensorineural hearing loss for the first 7 days postoperatively. The most likely diagnosis and treatment is:

- A. fistula of the oval window, surgical exploration
- B. granuloma, surgical exploration

- C. granuloma, conservative management
- D. serous labyrinthitis, surgical exploration
- E. serous labyrinthitis, conservative management.

191. A 50-year-old woman has bilateral sensorineural hearing loss. Her audiogram shows a flat curve. Her hearing is considered to be socially functional if the hearing loss in the speech frequencies is less than:

- A. 15 dB
- B. 25 dB
- C. 30 dB
- D. 45 dB
- E. 60 dB.

192. A right-handed, 35-year-old woman underwent labyrinthectomy in the left ear for unilateral incapacitating Ménière's disease with no useful auditory function. Compensation for this loss of its impulses takes place in the:

- A. ipsilateral vestibular nuclei
- B. cerebellum
- C. median longitudinal fasciculus
- D. reticular formation
- E. contralateral labyrinth.

193. Patients with Louis-Bar syndrome have symptoms which include ataxia, oculocutaneous telangiectasia, and:

- A. situs inversus
- B. phenylketonuria
- C. sinopulmonary infections
- D. sensorineural deafness
- E. convulsive disorder.

194. The most frequently encountered malignant tumor of the nose and paranasal sinuses is:

- A. adenocarcinoma and adenoid cystic carcinoma
- B. squamous cell carcinoma
- C. chondrosarcoma and sarcoma
- D. mixed tumor
- E. none of the above.

195. A 60-year-old male developed convulsions, unconsciousness, chest pain, and hypotension after maxillary sinus irrigation. This suggests the following diagnosis and the first step in therapy is:

- A. septicemia, antibiotics
- B. cocaine reaction, intravenous diazepam (Valium)
- C. air embolism, place patient in the recumber position with the left side down
- D. air embolism, place patient in the recumber position with the right side down
- E. maxillary artery thrombosis, anticoagulation.

196. Submaxillary calculi can be visualized by x-ray in what percentage of the cases?

- A. 10%
- B. 25%
- C. 50%
- D. 75%
- E. 90%.

197. The most common benign intramural tumor of the esophagus is:

- A. angioma
- B. fibroma
- C. leiomyoma
- D. lipoma

E. neurilemmoma.

198. Esophageal perforation due to passage of a bougie tip is best prevented by:

A. use of antispasmodic drug before dilatation

B. dilatation through an esophagoscope

C. use of general anesthesia

D. use of a swallowed thread as a guide

E. use of lubricant on the dilator.

199. A 40-year-old woman presented with a 1x2 cm nontender, slowly enlarging mass in the infra-auricular area. Should this mass be located in the superficial lobe, the initial surgical treatment would be:

A. enucleation

B. superficial parotidectomy

C. total parotidectomy with preservation of facial nerve

D. total parotidectomy with facial nerve

E. incisional biopsy for permanent section.

200. A 60-year-old male presented with an ulcerating lesion measuring 1.5 cm in diameter in the concha of the left auricle. Examination under the microscope revealed that this lesion barely extended into the cartilaginous canal. Middle ear and mastoid were normal. No neck node was palpated. A biopsy revealed this to be a squamous cell carcinoma. The proper course of management would be:

A. preoperative radiation followed by en bloc partial temporal bone resection (leaving the stapes and facial nerve intact) and parotidectomy

B. preoperative radiation followed by partial temporal bone resection (leaving stapes and facial nerve intact)

C. radiation therapy only

D. parotidectomy and partial temporal bone resection (leaving stapes and facial nerve intact)

E. auriclectomy and excision of cartilaginous canal.

201. A 55-year-old healthy male developed a squamous cell carcinoma of the medial wall of the left pyriform sinus, not involving the apex. This lesion also extended to the left lingual surface of the epiglottis. The base of the tongue was determined to be free of tumor. No metastatic node was palpated. The proper course of action would be:

- A. radiation therapy for cure
- B. preoperative radiation therapy followed by total laryngopharyngectomy
- C. preoperative radiation therapy followed by supraglottic laryngopharyngectomy and left radical neck dissection en bloc
- D. preoperative radiation followed by total laryngopharyngectomy and left radical neck dissection en bloc
- E. supraglottic laryngopharyngectomy and left radical neck dissection en bloc.

202. A 35-year-old male presented with hoarseness for 3 months. He smoked one pack a day for the past 15 years. Indirect laryngoscopy revealed a 3 mm lesion on the left true cord, middle third. The rest of the ENT examination was unremarkable. Direct laryngoscopy and excisional biopsy were done. The pathology report revealed this to be a granular cell myoblastoma and that the margins were not clear of tumor. The proper management would include:

- A. close follow-up
- B. hemilaryngectomy
- C. total laryngectomy
- D. reexcisional biopsy with microscopic laryngoscopy
- E. cordectomy.

203. A 40-year-old healthy male presented with unilateral nasal obstruction. Examination revealed a papillomalike growth in the left nasal fossa. The rest of the ENT examination was unremarkable. Sinus x-rays showed involvement of the left maxillary sinus and erosion of the left nasomaxillary wall. The biopsy was reported as inverting papilloma. The proper course of action should be:

- A. intranasal resection of papilloma and Caldwell-Luc procedure
- B. lateral rhinotomy and partial maxillectomy
- C. lateral rhinotomy, removal of the nasoantral wall, and Caldwell-Luc procedure if necessary
- D. maxillectomy

E. partial maxillectomy.

204. A 40-year-old female presented with a pulsatile, nontender, slowly growing mass in the left upper neck. The rest of the ENT and general examination was negative. Carotid angiography shows an "egg-shell" appearing mass displacing the internal carotid artery laterally and widening the bifurcation. The course of action should be:

A. resection of the tumor in total only if it can be done without sacrificing the internal carotid artery

B. resection of the tumor in total even if resection of the internal carotid artery is necessary

C. radiation

D. preoperative radiation and resection of the tumor in total even if the internal carotid artery has to be sacrificed

E. preoperative radiation and resection of the tumor in total only if the internal carotid artery can be spared.

205. The pathognomonic feature of thyroid storm is:

A. fever

B. anxiety

C. tachycardia

D. hypotension

E. hypertension.

206. Parathyroid localization studies are indicated:

A. when the surgeon is not very familiar with the anatomy

B. in all patient undergoing neck exploration

C. in patients who had one unsuccessful neck exploration

D. in patients who had several unsuccessful neck explorations

E. none of the above.

207. Total parathyroidectomy and heterotopic autoimplantation is indicated in:

- A. renal osteodystrophy in patients not candidates for renal transplantation
- B. familial hyperparathyroidism
- C. multiple endocrine adenomatosis
- D. none of the above
- E. all of the above.

208. The origin of the summing potential is the:

- A. hair cells
- B. stria vascularis
- C. auditory nerve
- D. supporting cells
- E. cochlear nucleus.

209. The generator site for wave V of the ABR is thought to be the:

- A. auditory nerve
- B. superior olive
- C. inferior colliculus
- D. hair cells
- E. cochlear nucleus.

210. The ABR generated by a broad-band click stimulus has its major contribution from which frequency range?

- A. 250-500 Hz
- B. 500-1000 Hz
- C. 1000-2000 Hz
- D. 2000-3000 Hz
- E. 3000-4000 Hz.

211. A patient has a 60 dB hearing level at 4000 Hz in his suspect ear. To correct the latency of the ABR for this patient, how much should be subtracted?

- A. 0.05 msec
- B. 0.1 msec
- C. 0.2 msec
- D. 0.3 msec
- E. 0.4 msec.

212. The least interaural latency difference considered suspicious for an acoustic tumor is:

- A. 0.1 msec
- B. 0.2 msec
- C. 0.3 msec
- D. 0.4 msec
- E. 0.5 msec.

213. The cochlear microphonic originates from the:

- A. auditory nerve
- B. cochlear nucleus
- C. stria vascularis
- D. hair cells
- E. inferior colliculus.

214. The most accurate noninvasive test for acoustic tumor diagnosis is:

- A. computerized cranial tomography
- B. auditory brain stem responses
- C. the crossed acoustic reflex
- D. temporal bone polytomography

E. electronystagmography.

215. The normal latency of the fifth wave of the ABR is in the range of:

A. 1-2 msec

B. 2-3 msec

C. 3-4 msec

D. 4-5 msec

E. 5-6 msec.

216. The origin of wave I of the ABR is the:

A. primary auditory projections

B. hair cells

C. inferior colliculus

D. auditory nerve

E. cochlear nucleus.

217. The normal value for the wave III-V interval is approximately:

A. 1 msec

B. 2 msec

C. 3 msec

D. 4 msec

E. 5 msec.