



Respiratory System

Case 1:

A 45-year-old patient presents with complaints of difficulty breathing through the nose, particularly in the anterior part of the nasal cavity. Examination reveals tenderness over the vestibule of the nose. Which of the following conditions is most likely responsible for these symptoms?

- a) Nasal polyps
- b) Deviated nasal septum
- c) Acute rhinitis
- d) Vestibular stenosis

Case 2:

A 50-year-old patient complains of hoarseness of voice and discomfort in the throat, especially during speaking. There is also a sensation of something stuck in the throat. On examination, the larynx appears inflamed, and there is swelling around the vocal folds. Which of the following conditions is most likely causing these symptoms?

- a) Laryngitis
- b) Vocal cord polyps
- c) Laryngeal cancer
- d) Vocal cord paralysis

Multiple Choice Questions (MCQs):

1. Which part of the nasal cavity is lined with stratified squamous keratinized epithelium?
 - a) Anterior part (vestibule)
 - b) Posterior part
 - c) Respiratory area
 - d) Olfactory area
2. What type of epithelium lines the respiratory area of the nasal cavity?
 - a) Simple squamous epithelium
 - b) Pseudostratified columnar ciliated epithelium
 - c) Transitional epithelium
 - d) Simple cuboidal epithelium
3. What is the function of the lamina propria in the nasal cavity?
 - a) Filtration of inspired air
 - b) Production of mucus
 - c) Immune defense against foreign bodies
 - d) All of the above
4. Which area of the nasal cavity is responsible for the sense of smell?
 - a) Vestibule
 - b) Respiratory area
 - c) Olfactory area
 - d) Inferior meatus
5. Which ligament connects the cricoid cartilage to the first tracheal ring?
 - a) Thyrohyoid membrane
 - b) Cricotracheal ligament
 - c) Glosso-epiglottic ligament
 - d) Cricothyroid ligament



Respiratory System

6. The laryngeal ventricle lies between which two folds of the larynx?

- a) Thyrohyoid ligament and vocal folds
- b) Vestibular folds and vocal folds
- c) Aryepiglottic folds and vocal folds
- d) Vestibular folds and aryepiglottic folds

7. What is the function of the vocal folds in the larynx?

- a) Regulation of airflow into the trachea
- b) Production of mucus
- c) Phonation (voice production)
- d) Protection against foreign bodies

8. Which nerve supplies motor function to all intrinsic laryngeal muscles except the cricothyroid muscle?

- a) Glossopharyngeal nerve
- b) Hypoglossal nerve
- c) Recurrent laryngeal nerve
- d) External laryngeal nerve

9. Which part of the larynx is supplied by the superior laryngeal vessels?

- a) Above the vocal cords
- b) Below the vocal cords
- c) Laryngeal ventricle
- d) Vestibule

10. Which epithelium lines the vocal cords in the larynx?

- a) Simple squamous epithelium
- b) Pseudostratified columnar ciliated epithelium
- c) Stratified squamous non-keratinized epithelium
- d) Simple cuboidal epithelium

11. Which ligament forms the vestibular ligament in the larynx?

- a) Quadrangle membrane
- b) Cricothyroid ligament
- c) Thyrohyoid membrane
- d) Cricotracheal ligament

12. The aryepiglottic muscles function to:

- a) Open the laryngeal inlet
- b) Close the laryngeal inlet
- c) Abduct the vocal folds
- d) Adduct the vocal folds

13. Which muscle is responsible for stretching the vocal folds (making them tense) in the larynx?

- a) Thyroarytenoid muscle
- b) Cricothyroid muscle
- c) Posterior cricoarytenoid muscle
- d) Lateral cricoarytenoid muscle

14. The sensory supply to the mucosa above the vocal cords is provided by which nerve?

- a) Internal laryngeal nerve
- b) Recurrent laryngeal nerve
- c) External laryngeal nerve
- d) Superior laryngeal nerve

15. What is the extent of the larynx in terms of vertebrae?

- a) C1-C3
- b) C2-C5
- c) C3-C6
- d) C4-C7

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Key answers

Medical Cases

Case 1: b) Deviated nasal septum

Case 2: a) Laryngitis

the most likely condition for Case 1 is a deviated nasal septum, causing difficulty breathing through the nose and tenderness over the vestibule. For Case 2, the symptoms described, such as hoarseness of voice, discomfort during speaking, and inflamed larynx with swelling around the vocal folds, suggest laryngitis as the most probable condition.

Multiple Choice Questions (MCQs):

1. a) Anterior part (vestibule)
2. b) Pseudostratified columnar ciliated epithelium
3. d) All of the above
4. c) Olfactory area
5. b) Cricotracheal ligament
6. b) Vestibular folds and vocal folds
7. c) Phonation (voice production)
8. c) Recurrent laryngeal nerve
9. a) Above the vocal cords
10. c) Stratified squamous non-keratinized epithelium
11. a) Quadrate membrane
12. b) Close the laryngeal inlet
13. b) Cricothyroid muscle
14. a) Internal laryngeal nerve
15. c) C3-C6