

BENIGN LARYNGEAL CONDITIONS, VOICE AND BRONCHO-OESOPHAGOLOGY

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TOPICS COVERED IN THIS MODULE

- Non-malignant conditions of the larynx, oesophagus and bronchus.

RATIONALE AND COMPETENCIES

Broncho-oesophagology, laryngology and voice disorders are a core element of the Otolaryngology, Head & Neck program. Trainees will be required to have a high level of knowledge of the anatomy and physiology of the larynx, bronchi and oesophagus, differential diagnosis of benign conditions affecting these organs, the rationale of appropriate investigation and management of these disorders.

The graduating trainee will be able to:

- Competently manage all common non-malignant conditions of the larynx, bronchi and oesophagus.
- Adequately assess a patient with conditions affecting these organs.
- Collaborate with other professionals in the various types of treatment protocols.
- Demonstrate a knowledge of voice production, swallowing and respiration, as it affects the upper respiratory system.

MODULE CONTENT AND OBJECTIVES

There are two components in this module:

1. Basic Sciences
2. Clinical Knowledge, Skills and Judgement

1. Basic Sciences

- Describe in detail the anatomy (including embryology) of the larynx, oesophagus and tracheobronchial tree.
- Explain the physiology of voice production, swallowing, upper airway breathing.
- Recognise and describe pathology of diseases affecting the larynx, oesophagus and tracheobronchial tree including:
 - Benign tumours
 - Infections – acute and chronic laryngitis
 - Infections of the upper tracheobronchial tree
 - Trauma – blunt and penetrating
 - Blunt and penetrating trauma to the larynx and trachea
 - External and endoscopic injury to the laryngopharynx and oesophagus
 - Endoscopic injury to the tracheobronchial tree

- Manifestations of systemic disease affecting the larynx, tracheobronchial tree and oesophagus, including:
 - Neurological conditions affecting swallowing and voice production
 - Spasmodic dysphonia
- Recurrent laryngeal nerve and superior laryngeal nerve palsy
- Abnormalities of the infantile larynx including:
 - Laryngomalacia
 - Subglottic haemangioma
 - Subglottic stenosis
 - Laryngeal cleft
 - Recurrent laryngeal nerve injury or palsy
- Motility and swallowing disorders of the oesophagus
 - Gastro-oesophageal/laryngopharyngeal reflux
- Explain the principles and importance of voice therapy in the assessment and treatment of many disorders of voice and swallowing.
- Describe, interpret and evaluate diagnostic imaging, including plain Xray, CT scan, MRI, contrast studies (including video fluoroscopy).
- Explain and interpret the basic principles of the following tests – video stroboscopy, functional endoscopic evaluation of swallowing (FEES), functional endoscopic evaluation of swallowing with sensory testing (FEESST), laryngeal electromyography, respiratory function tests, oesophageal pH testing and manometry.
- Explain and apply the principles of the following as related to broncho-oesophagology, laryngology and voice:
 - Laser physics and safety
 - Genetics, statistics, antibiotics, cigarette smoking, etc

2. Clinical Knowledge, Skills and Judgement

- Assess and manage all common conditions affecting the laryngopharynx, cervical oesophagus and upper tracheobronchial tree.
- Order appropriate diagnostic tests and be able to interpret them.
- Provide test result information to patients in ways that lead to informed decision making.
- Demonstrate proficiency in safely carrying out the following procedures:
 - Diagnostic oesophagoscopy +/- biopsy
 - Diagnostic laryngoscopy +/- biopsy
 - Diagnostic microlaryngoscopy +/- biopsy
 - Diagnostic rigid bronchoscopy +/- biopsy
 - Diagnostic flexible bronchoscopy +/- biopsy
 - Oesophagoscopy with removal of foreign body
 - Oesophagoscopy and dilatation of stricture
 - Bronchoscopy and removal of foreign body in adult

- Microlaryngoscopy including:
 - Laryngeal papillomatosis removal – laser
 - Laryngeal papillomatosis removal – non-laser
 - Microsurgical removal of mucosal lesions and submucosal cysts
- Vocal cord medialisation
- Laryngofissure and external operation on the larynx
- Tracheostomy
- Manage any complications of any of the above procedures
- Plan, implement and manage pre and postoperative care of the above procedures
- Discuss the following procedures:
 - Diagnostic laryngoscopy in infants and children.
 - Diagnostic bronchoscopy in infants and children.
 - Bronchoscopy and foreign body removal in infants and children.
 - Reconstructive procedures for laryngeal/subglottic stenosis in children and adults.
 - Microlaryngoscopy:
 - Vocal fold injection procedures
 - Microsurgical techniques for deep cysts
 - Laser techniques for benign lesions
 - Laser arytenoidectomy
 - Arytenoid adduction
 - Surgical treatment of sulcus vocalis

SUGGESTED READING

- Video stroboscopic examination of the larynx, Minoru Hirano, Diane M Bless (Singular Publishing Group Inc).
- Professional Voice – The Signs and Art of Clinical Care, 2nd edition, Robert T Sataloff (Singular Publishing Group Inc).
- Vocal Fold Physiology – Frontiers in Basic Science, edited by Ingo R Titze.
- Dysphagia – Diagnosis and Management, 3rd edition, Michael E Groher (Publishers Butterworth-Heinemann).
- Deglutition and it's disorders – Anatomy, Physiology, Clinical diagnosis and management, Adrienne L Perlman, Konrad Schulze-Dellrieu (Singular Publishing Group Inc).

JOURNALS

Relevant current Journals