SNORING AND SLEEPING DISORDERED BREATHING

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TOPICS COVERED IN THIS MODULE

- Basic sciences in relation to sleep, upper airways and sleep apnoea
- Applied skills in surgery of snoring and sleep apnoea

RATIONALE AND COMPETENCIES

The Otolaryngology, Head and Neck Surgeon is expected to be able to investigate, assess and manage snoring and sleep apnoea and to be competent in accurately identifying conditions that require surgery, and those which are best treated by other means.

The graduating trainee will be able to:

- Assess patients with snoring and sleep apnoea
- Interpret relevant diagnostic tests related to the condition
- Consider all relevant options both surgical and non-surgical
- Communicate realistic outcomes of surgery and their complications
- Safely carry out common procedures for the treatment of snoring and sleep apnoea including the management of the post operative period
- Manage complications
- Acknowledge fully their limitations

MODULE CONTENT AND OBJECTIVES

There are two components in this module:

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

1. Basic Sciences

- Define:
  - Obstructive sleep apnoea
  - Apnoea
  - Hypopnoea
  - Respiratory disturbance index
  - Upper Airway Resistance Syndrome

Physiology of sleep

- Explain the physiology of:
  - Non-REM (Four stages) Sleep
  - REM Sleep
  - Relative proportions and changes with age

Physiology of Airway Collapse

- Describe the:
  - Role of nasal airway
  - Craniofacial skeleton
  - Soft tissues and musculature
  - Fujita classification
  - Pathophysiologic consequences of airway collapse
  - Blood gas changes (O2, CO2)
    - Pulmonary/Systemic vasoconstriction
    - Vagal bradycardia/ectopic cardiac beats
  - Sleep arousals
    - Cerebral dysfunction

Clinical Consequences of Obstructive Sleep Apnoea

- Recognise and describe the pathology of obstructive sleep apnoea
- Review the consequences of obstructive sleep apnoea

2. Clinical Knowledge, Skills and Judgement

- Elicit an appropriate clinical history
- Carry out a focused examination
- Dynamic manoeuvres

Investigations

- Order and accurately interpret diagnostic tests:
  - Thyroid function tests
  - Basic understanding
  - Polysomnography
  - CPAP Titration Study
- Provide test information to patients in ways that lead to informed decision making

Management

- Review the non surgical treatment options for patients suffering from snoring and/or sleep apnoea.

- Explain the non surgical treatment options to patients in ways that ensure that they are safely and effectively carried out:
  - Continuous positive airway pressure
  - Mandibular advancement device
  - Weight loss

Surgical

- Accurately identify indications for surgical intervention:
  - Understand the basic principles of surgery
    - Uvulopharyngopalatoplasty and variations
    - Palatal Advancement
    - Hyoid Suspension
    - Genial tubercle advancement
    - Tongue base reduction
    - Maxillary/Mandibular advancement
    - Tracheostomy
    - Bariatric surgery
- Effectively manage any complications of the above procedures and the underlying disease process
- Plan, implement and manage pre and post-operative care of the sleep apnoea patient
- Be able to perform:
  - UPPP
  - Tracheostomy

SUGGESTED READING

- Snoring and obstructive sleep apnoea, 3rd ed 2003, eds; Fairbanks DFN Mickelson SA and Woodson BT: Publisher" Lippincott, Williams and Wilkins.

JOURNALS / ARTICLES

- Nerunterat C. Genioglossus advancement and hyoid myotomy: short-term and long-term results.J Laryngol Otol, 2003; 117:482-486
- North American Clinics

DELIVERY OF THIS MODULE

- Online courses
- Workshops
- Hospital rotations