Obstructive Sleep Apnoea

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Tonsillectomy and Adenoidectomy in Children with Sleep Related Breathing Disorders

Consensus statement of a UK multi disciplinary working party

Association of Paediatric Anaesthetists

Royal College of Anaesthetists

British Association for Paediatric Otorhinolaryngology

Royal College of Paediatrics and Child Health

British Association of Otorhinolaryngology, Head and Neck Surgery

Royal College of Surgeons of England Children's Surgical Forum

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The Problems

- κ 12% of children aged 4-5 years snore
- κ Nocturnal and daytime symptoms

- κ Less common: Failure to thrive
  Cognitive
  Enuresis
- κ Rare: Cor pulmonale

Sleep Disordered Breathing Disorders (SRBD)

- **PS - primary snoring**

  No impairment of oxygenation or ventilation

- **OSA - Obstructive Sleep Apnoea**

  Partial/intermittent/complete UAO

Surgical Treatment

κ 80% with SRBD effectively managed by

Adenoidectomy

Tonsillectomy

Adenotonsillectomy

κ What about those with mild symptoms?

Respiratory Complications

- κ US studies
- κ 20-25% post-op respiratory complications
- κ Selected population
- κ High rate of co-morbidity
- κ Tertiary population
- κ US “DGH-equivalent” studies 1.3-2.3% respiratory complications

Assessment

- κ At-risk clinical assessment
- κ Co-morbidity
- κ The normal child with severe OSA?

- κ Overnight oximetry repeated <80%
- κ CXR/ECG

Anaesthetic issues

- κ Sensitivity to inhalational agents
- κ Sensitivity to opiods
- κ Caution with narcotics
- κ Beware additive/cumulative effects

Indications for pre-op investigations

Diagnosis of OSA unclear or inconsistent

Age <2 years and/or weight <15kg

Down's syndrome

Cerebral palsy

Hypotonia or neuromuscular disorders

Craniofacial anomalies

Mucopolysaccharidosis

Obesity (BMI (Body Mass Index) >2.5SDS (Standard Deviation Scores) or >99th centile for age and gender)

Significant comorbidity such as congenital heart disease, chronic lung disease

Residual symptoms after AT

Unsuitable for DGH High risk of post operative respiratory complications

Age <2 years and/or weight <15kg

Failure to thrive (weight <5th centile for age)

Obesity (BMI >2.5SDS or >99th centile for age and gender)

Severe cerebral palsy

Hypotonia or neuromuscular disorders (moderately severely or severely affected)

Significant craniofacial anomalies

Mucopolysaccharidosis and syndromes associated with difficult airway

Significant comorbidity (e.g. congenital heart disease, chronic lung disease ASA 3 or above)

ECG or echocardiographic abnormalities

Severe OSA (described by polysomnographic indices including Obstructive Index >10, Respiratory Disturbance

Conclusions

- κ Knowledge surrounding SRDB incomplete
- κ Majority can be managed in DGH
- κ Identify those needing PICU post-op
- κ Screening with pulse oximetry is helpful
- κ Further UK research is needed