Paediatric Airway Database over 5 years at a Tertiary Children's Hospital

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Summary
- This study has revealed the causes of airway pathology requiring intervention in our unit.
- We feel that an airway database enables us to analyse our case load and plan a service reflective of this.
- The most common indication was stridor.
- The most common aetiology was laryngomalacia.
- The case details were found to be particularly useful for paediatric anaesthetic and intensive care teams, regarding potential airway difficulties.

Introduction
- Tertiary paediatric airway referrals are increasing, due to the centralisation of specialised regional services at our uni.
- We reviewed our case load and present our experience of the management of paediatric airway cases.

Results
- 359 paediatric airway operations have been undertaken.
  - Age range: 1 day old to 15 years
  - Male : female was 1.87:1 (187:100)
  - The number of procedures on each patient varied from 1 to 19 (mode - 1; median - 1)
  - The main indications included stridor, hoarse voice or weak cry, recurrent croup, difficulty intubating or failure of extubation and severe or unexplained obstructive sleep apnoea (this was normally in conjunction with another indication such as stridor)
  - Laryngomalacia and tracheomalacia were the most common diagnoses, followed by subglottic stenosis with/without subglottic cysts
  - 3 of the patients with over 10 procedures were referred to Great Ormond Street Hospital and underwent laryngotracheal reconstruction
  - 44.5% of the patients had co-morbidities
  - 51.6% of the patients were premature
  - 23.5% had a history of prior intubation

Discussion
- This data has been useful in assessing our workload and the frequency of different pathologies in our population.
- For the children with challenging airways it is particularly useful to have documented within the airway database the airway findings including grade of anaesthetic view and the size of ETT.
- We distribute this info to the child’s parents and local hospital.
- Photos taken intra-operatively are also stored for reference.

Further Work
- This audit will also help in developing targeted research and thoughtful use of resources in future.
- We plan to continue the paediatric airway database locally, and to contribute to a national airway database.

Acknowledgements
- The authors would like to thank the patients and their families for their permission in being included in the airway database.

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Distributing Summary of Results

Methods
- 5 year's data from our paediatric airway database and hospital records was analysed.
- Data collected included age, gender, indication for the procedure, diagnosis, number of procedures, additional airway procedures, history of prematurity, prior intubations and co-morbidities.

DIAGNOSIS
- Laryngomalacia
- Normal
- Subglottic stenosis and cysts
- Vocal Cord Paralysis
- Granulations
- Paradoxical vocal cord movement
- Foreign body
- Other

NUMBER OF PROCEDURES PER PATIENT

INDICATION

Further Work
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