The Role of the Otolaryngologist in the Pediatric Head and Neck Burn Population, a Retrospective Analysis

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INTRODUCTION

Burns result in cellular damage due to:
-Heat/Cold
-Chemical exposure
-Electrical current and ionizing radiation

The head and neck comprises only 10% of the total body surface area

However, severe third degree burns in these areas can be life threatening

Depending on mechanism, initial evaluation mandates an appropriate suspicion for co-existing inhalation injury

The majority of upper airway obstructive cases in children with head and neck burns are the result of:
- Ingestion of caustic material (45%)
-Direct flame injury (33%)
-Scald injury (21%)

The goal of this study was to the assess the role of the otolaryngologist in evaluating and treating this group of patients

Results

Mean age of 9.1 years old

17 children out of the 101 had at least second degree:
- Perioral
- Facial
- Anterior neck
- Chest burns

DISCUSSION

Pediatric patients, especially those that are preverbal present a particular challenge in terms of quickly diagnosing airway obstruction after a scald type burn injury

Whether these patients actually ingest the causative agent or a “airway stream” injury bypasses the oral and oropharyngeal airway causing direct damage to the supraglottis/glottis is still up to debate.

Other possibilities including direct transmission of thermal energy from the anterior neck burn to the upper airway have also been discussed in the literature.

The role of the otolaryngologist, in terms of assessment of the airway never resulted in an escalation of airway interventions.

However, in one intubated patient, our assessment did result in a more cautious extubation plan. Thus, as otolaryngologists, our role appears to be more valuable in secondary airway assessment.