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A simple approach to airway management for a giant sublingual dermoid cyst

To the Editor:

Sublingual dermoid cysts are uncommon and account for less than 1% of cystic intra-oral lesions.¹ Fewer than 225 cases have been reported in the literature.^{1–4} Giant size sublingual dermoid cysts are extremely rare and pose considerable technical challenges to the anesthesiologist and surgeon.^{2,3} Huge cysts may fill the entire oral cavity and render tracheal intubation extremely difficult or impossible. Suggested airway management strategies include blind nasotracheal intubation, fiberoptic endoscope-guided intubation, laryngeal mask airway and preliminary tracheostomy.^{1–5} These approaches are technically demanding and require sophisticated endoscopes which are not universally available. Preliminary tracheostomy significantly increases morbidity. Although excision under local anesthesia with monitored anesthesia care has been reported in a few cases, there is a risk of intra-operative pulmonary aspiration. We herein describe a safe and simple technique of airway management in such cases.

We recently treated a five-year-old boy who presented with a massive sublingual dermoid cyst of several years' duration (Figure 1). The cyst measured 10 × 10 cm and was located within the floor of the patient's mouth displacing his tongue to the left side. The cyst filled the entire oral cavity and prevented closure of the mouth. Articulation and mastication were impossible; yet he did not have respiratory distress at the time of presentation. A sublingual dermoid cyst was diagnosed and surgical excision was planned. Prior to induction of anesthesia the cyst was completely



FIGURE 1 Giant sublingual dermoid cyst (before needle aspiration).



FIGURE 2 Completely collapsed cyst (after needle aspiration) resulting in a roomy oral cavity.

decompressed by aspiration of its contents using a 16G needle. Approximately 150 mL of thick brown oily fluid was aspirated, resulting in dramatic collapse of the cyst (Figure 2). At this stage, the airway assessment revealed normal mouth opening with a Mallampati class I airway. Accordingly, it was deemed appropriate to proceed with general anesthesia following application of routine monitors. Following induction with thiopentone sodium 75 mg *iv* (5 mg·kg⁻¹) and atracurium 7.5 mg *iv* (0.5 mg·kg⁻¹), direct laryngoscopy revealed a laryngeal grade I view (Cormack and Lehane classification), and the patient's trachea was intubated with a # 5 oral endotracheal tube. The patient's lungs were ventilated and anesthesia and surgery proceeded without incident. Following complete excision of the lesion, the patient's recovery was uneventful.

Although collapsing a cyst by needle aspiration is a commonsense approach, surprisingly this technique has not been adequately highlighted in the literature.¹ Only on five previous occasions has *partial* cyst decompression been reported to facilitate intubation.¹ This is the first reported pediatric case of *complete* preanesthetic decompression of a giant sublingual dermoid cyst.

Huge intra-oral cysts also hinder surgical access. Therefore, extra-oral submental access, median glosotomy, extended median glosotomy and mandibulotomy approaches have been described.²⁻⁴ They increase morbidity and are cosmetically unacceptable. The case reported herein illustrates that preanesthetic aspiration improves surgical access, thereby facilitating complete transoral excision of giant cysts.

We wish to caution that needle aspiration of cyst is only a temporizing measure and it cannot be the definitive treatment. Although aspiration may occasionally fail due to the pultaceous nature of cyst content,¹ we emphasize that it is worth attempting in every case. We extrapolate that this technique may be applicable in any huge cystic lesion of the oral cavity⁵ irrespective of its pathology.

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Modification of the LMA-Unique to facilitate endotracheal intubation

To the Editor:

Airway management can present challenges during conscious sedation for specialized cases performed under regional or local anesthesia such as awake craniotomy.^{1,2} When progressive sedation levels are required, initially the airway can be managed with the laryngeal mask airway (LMA; LMA North America, San Diego, CA, USA) or the single-use LMA-Unique (LMA-U).³ If airway protection is needed or positive pressure ventilation is required, conversion to an endotracheal tube (ETT) may then be warranted. Blind passage of a standard ETT through the LMAU is rarely successful, with less than 25% success in one series⁴ but fiberoptic guidance may provide visualization for intubation.⁵ We have modified an LMA-U and ETT to successfully secure the airway.

A middle-aged patient underwent awake craniotomy in right lateral decubitus position with his head fixed in Mayfield pins. After cerebral mapping was completed the patient was re-sedated, but he then became increasingly restless; it was impossible to find a balance of immobility and comfort without airway obstruction and apneic events. A size 4 LMA-U was inserted, allowing the patient to breath spontaneously. After three hours, gastric contents appeared in the anesthesia circuit, mandating endotracheal intubation to protect the airway. The fiberoptic bronchoscope (FOB) was advanced easily into the trachea with the LMA-U in place. However, a bed-side trial of similar components revealed that a suitably sized ETT could not be advanced through the LMA-U. A larger #5 LMA was not helpful because the limiting factor was the circuit connector. The intubating LMA could not be inserted properly due to the patient's position. A