A case study: The use of a trans-tracheal guide for a patient with a large protruding oral myxoma

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In a rural mission hospital in southern Haiti, the authors occasionally encounter surgical patients with advanced tumors of the mandible and oral cavity. The case presented exemplifies the formidable challenge of intubating these patients. A retrograde intubation technique is described.

The patient was a 33-year-old Haitian farmer with a five-year history of an enlarging sublingual mass. On presentation to the authors’ outpatient clinic in February, 1984, the tumor was occupying the entire oral cavity such that his tongue was hidden behind a grapefruit-sized mass which protruded five inches beyond the plane of his face and held his mouth open 60° permanently. (See Figure 1.) Preoperative x-rays showed destruction of the anterior mandible bilaterally. The airway was widely open. His complaints were constant drooling and pain on eating.

As the hospital in question has no intensive care facility and an average of 16 surgical patients per ward nurse, the authors have avoided elective tracheostomies in mandibulectomy cases, preferring nasotracheal intubation whenever possible. In this patient, visualization of the hypopharynx was impossible and attempts at blind nasotracheal intubation failed. Rather than directly proceeding to tracheostomy it was determined that a retrograde intubation technique be employed.

Upon arrival in the operating room the patient had been sedated with meperidine 50 mg and atropine 0.6 mg. Next a benzoate topical anesthetic was applied to all accessible oral mucous membranes. Being as all other measures failed we proceeded with the retrograde technique.

Using aseptic precautions and 1% lidocaine (Xylocaine®) for skin anesthesia, a 17-gauge 1½ inch beveled needle was introduced into the tra-
chea just below the cricoid cartilage. While directing the bevel cephalad, a central venous catheter was threaded into the oropharynx where it was retrieved with a Magill forceps. The needle was then withdrawn.

Next a single lumen 16 Fr. nasogastric tube was introduced into the right nares and also passed into the oropharynx where it was retrieved in a similar manner. The ends of the nasogastric tube and central venous catheter, having been brought out through the mouth, were sutured together securely. (See Figure 2.) Traction was then applied to the central venous pressure line so that the sutured ends entered the proximal trachea and served as a guide over which a size 7 nasotracheal tube passed smoothly. (See Figure 3.)

When it was certain that exhalation was occurring through the endotracheal tube, the catheter was cut at skin level. The endotracheal tube was then further advanced and the cuff inflated. The catheter guide was withdrawn out the nose. Proper tube position was confirmed by auscultation. Thio
dental 250 mg was then administered IV and general anesthesia was started using nitrous oxide, oxygen and halothane. A radical mandibulectomy and tumor resection were performed. Subsequent histology revealed the tumor to be a benign myxoma which is an uncommon locally invasive neoplasm, cured by complete excision. The patient had a satisfactory postoperative course and was discharged on the 18th hospital day.

A standard direct visual orotracheal intubation was performed on the same patient two months later for a minor intraoral procedure. He continues to do well.

Summary

A retrograde nasotracheal technique can be valuable in rare circumstances, as this article illustrates. The important points are (1) adequate sedation and local anesthesia in an awake cooperative patient, (2) aseptic technique in introducing a catheter trans-tracheally to be passed retrograde into the oropharynx and out the mouth, (3) securing the catheter to a second nasally introduced tube also brought out the mouth, (4) using this nasotracheal guide for intubation and (5) withdrawing the guide retrogradely to avoid further contamination of the trachea by oral and foreign bacteria.

REFERENCE


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