

## Correspondence

# Cannot ventilate, difficult to intubate

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### EDITOR:

A 57-yr-old (90 kg) male was scheduled to undergo a left orbit osseointegration procedure for attachment of a facial prosthesis. He had previously undergone a craniofacial resection for squamous cell carcinoma of the left ethmoid sinus with exenteration of the left orbit followed by a course of radiotherapy. The pre-anaesthetic evaluation of this patient was unremarkable apart from some limitation of mouth opening. He had a grommet insertion under general anaesthesia 3 months before but no records were available.

Since his previous surgeries were apparently uneventful, it was decided to anaesthetize this patient using total intravenous anaesthesia with muscle relaxant. Because of the anticipated duration of surgery (>3 h) endotracheal intubation was planned. The patient was routinely asked to give consent for the use of his photographs for teaching and research purposes as well as for publications.

In the theatre after monitoring was instituted, the patient was pre-oxygenated, given 3 mg of midazolam as a premedicant and target-controlled infusions of propofol and remifentanyl infusions were commenced. It became apparent that we were unable to ventilate this patient with a face mask because of the facial defect and the removal of the orbital floor. A size-5 laryngeal mask was inserted through which ventilation was easy. Atracurium 45 mg was then given. On direct laryngoscopy we could not visualize the epiglottis. Attempts with a McCoy blade and blind bougie insertion also failed, although oxygenation and ventilation with the laryngeal mask was well maintained when reinserted.

The patient's airway was secured by asleep fibre-optic nasal intubation with a 7.0 reinforced tracheal tube that was clearly visible through the orbital defect (Fig. 1). The surgery proceeded smoothly and the patient was extubated uneventfully.

### Discussion

Anaesthetists may find it difficult or impossible to face-mask ventilate such patients where the orbital floor has been removed. Endotracheal intubation may also be difficult because of altered anatomy as a result of previous surgery and the effects of radiotherapy.

Awake trans-orbital intubation, fibre-optic trans-orbital intubation [1,2], the use of lighted stylets and tracheotomy have all been reported in the airway management of similar cases, especially in patients with scarring of the face and limited mouth



**Figure 1.**  
*Tracheal tube seen through the open orbit.*

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opening. However, in our case a trans-orbital tube would have made the surgery difficult. In this case, awake fibre-optic intubation would have been the safest method of airway management.

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## Postoperative airway obstruction due to Tapia's syndrome after coronary bypass grafting surgery

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### EDITOR:

Tapia's syndrome describes a lesion characterized by paralysis of the 10th and 12th cranial nerves. It was first described in 1905 in toreadors who were injured behind the angle of the mandible by bulls' hooves [1]. We present a rare case of postoperative airway obstruction accompanied by failed extubation attempts due to Tapia's syndrome after coronary artery bypass grafting (CABG) surgery.

A 52-yr-old female was admitted to hospital for CABG. She had a history of coronary artery disease and myocardial infarction 2 yr before. Preoperative physical and laboratory examination were within normal limits, with no signs of neurological abnormalities. Administration of general anaesthesia and orotracheal intubation proceeded without difficulty. Laryngoscopy was performed with a Macintosh blade, and an 8-mm endotracheal tube was inserted successfully on the first attempt. The cuff was inflated with air, up to the point where no audible leak was heard. After midline sternotomy, full heparinization, cold cardioplegia and hypothermic cardiopulmonary bypass, three anastomoses were made.

Postoperatively, the patient was transferred to the intensive care unit and underwent mechanical ventilation. On the first postoperative day, the patient was fully awake and breathing adequately. She was weaned from mechanical ventilation gradually, but soon after extubation, symptoms and signs of upper airway obstruction developed, so she was reintu-

### References

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2. Woehlck Harvey J, Connolly Lois A. Alternative methods of orbitotracheal intubation (letter). *Anesthesiology* 2003; 98: 1304.

bated. Two further attempts at extubation also failed, the patient having airway obstruction each time extubation was attempted. A tracheostomy had to be performed 5 days later.

Detailed ear, nose and throat and neurological examination revealed bilateral hypoglossal and recurrent laryngeal nerve palsy. The patient was unable to move her tongue, and there was pooling of secretions in the oropharynx. There was no decreased sensation of the tongue and taste was unaltered. Indirect laryngoscopy revealed vocal cord paralysis. A magnetic resonance (MR) scan of the brain, base of the skull and hyoid bones, as well as MR angiography and carotid-basilar artery angiography showed no abnormalities. Serological studies for infections were also negative. Electromyographic examination showed denervation of the tongue along with fibrillation potentials and positive sharp waves.

The nerve palsies improved slowly. One month after surgery, the patient was able to symmetrically extend her tongue, and vocal cord movement started to recover. Sixty-five days after surgery, the patient was able to swallow soft food. Symptoms ultimately resolved completely after 3 months and the tracheostomy was closed. Follow-up examination 2 months later revealed no abnormalities.

Hypoglossal and recurrent laryngeal nerve palsy has been reported as a rare complication during anaesthesia. General anaesthesia with oral intubation or regional anaesthesia with interscalene brachial plexus block has been related to bilateral Tapia's syndrome [2,3]. Johnson and Moore [3] showed that sudden onset of hypoglossal and recurrent laryngeal nerve paralysis suggests a vascular event. The same authors suggested that the ascending pharyngeal

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