

Fiberoptic-guided retromolar intubation in an infant with intraoral tumor

Madam,

The plan for airway management in a case of anticipated difficult airway in infants is guided by not only by the child's condition but the resources available and the expertise to handle equipment.^[1]

A 6-month-old American Society of Anaesthesiologists grade I, weighing 8 kg presented with a gradually increasing intraoral swelling over 2 months. On examination, the swelling was 4–5 cm, soft in consistency, bleeding on touch, and obscuring the oral cavity [Figure 1]. Computed tomography (CT) showed 4–5 cm hyperdense mass arising from the anterior mandible. Diagnosis of melanotic neuroectodermal tumor of infancy was made and tumor excision was planned.

Though nasal route would have been ideal in this case, a smaller size flexible fiberoptic which could accommodate size 3.5-mm endotracheal tube (ETT) or less for contemplating nasal fiberoptic intubation was not available. Another option could have been a blind nasal intubation but we did not have expertise as this technique is not regularly performed in our institution. Therefore, under the circumstances, we planned for a fiberoptic intubation using 4.5-mm ETT using retromolar approach. We had some experience with retromolar technique of intubation in managing difficult airway cases in adult patients. Surgical tracheostomy was kept ready as a back-up.



Figure 1: Tumor arising from the mandible covering the oral cavity

An intravenous access was secured preoperatively using eutectic mixture of local anesthetic (EMLA) application. The child was premedicated with injection glycopyrrolate 0.2 mg intravenously. Standard monitors were applied. Inhalational induction of anesthesia was facilitated with sevoflurane in oxygen. Adequate ventilation with bag and mask was ensured. An uncuffed 3-mm ETT was passed nasally for perioxxygenation. A presoftened 4.5-mm ETT was railroaded over the bronchoscope and inserted through retromolar space, retracting the cheek. Vocal cords were easily visualized without much manipulation and the fiberoptic was passed through it. The ETT was railroaded using rotational motion. The child was kept spontaneously breathing till the time airway was secured. Oxygen saturation and end-tidal carbon dioxide (ETCO₂) was monitored throughout the procedure. Suction machine was kept ready and provision of lowering the head with OT table's remote control was made available in case of sudden bleeding from the mass. Although retromolar technique for laryngoscopy has been described in literature for management of difficult airway,^[2,3] the feasibility of fiberoptic-guided retromolar intubation in infants has not been assessed so far. This technique offers an advantage of bypassing the tongue and other midline structures which obscure the laryngeal view.^[4] In our case, the midline approach was not possible and even slight displacement of the tumor could have resulted in catastrophic bleeding.

We believe flexible fiberoptic intubation through the retromolar space can prove to be an effective and reliable technique for securing the airway in infants where difficulty is encountered in tracheal intubation through midline oral and nasal routes.

Disclosure

Written informed consent for the case and publication was taken from the legal guardian of the child.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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