

PO 24 - AIRWAY MANAGEMENT FOR A MONTGOMERY T-TUBE INSERTION FOLLOWING TRACHEOPLASTY

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Introduction: Airway management for tracheal surgery often presents a challenge for anesthesiologists. Here we report the successful management of a Montgomery T-tube placement in a patient with subglottic stenosis. Montgomery T-tube is a soft silicone, non-cuffed tube, with two limbs (“T-shaped”), used as a combined stent (upper limb) for subglottic lesions and as a mean to ventilate patient’s lungs (lower limb).

Case Report: 76-yr-old woman, ASA III, with hypertension and previous mandibular reconstruction and tracheostomy due to a mandibular carcinoma. She developed a tracheal stenosis, being scheduled for a tracheoplasty. An intravenous anesthesia was carried out with remifentanyl, propofol and rocuronium. Initially, after pre-oxygenation and anesthesia induction we removed the tracheostomy tube and inserted a 6 mm cuffed microlaryngeal tube guided by a Bougie. Since the surgical team couldn’t access the stenosed segment of the trachea through upper airway, we proceeded to fiberoptic oral intubation with a 5 mm endotracheal tube, and removed the microlaryngeal tube, allowing surgical access to the lesion through the tracheostoma. Also, using the fiberscope, we shared both surgical field and airway view with ENT surgeons, providing optimal surgical exposure. With direct visualization of the upper part of the lesion, they could remove the granulation tissue causing the stenosis and generate space for T-tube placement. We ventilated the patient with 100% O₂ for 3 minutes and then the T-tube insertion was done in a period of apnea. The perpendicular limb of the tube was connected to the ventilator using an adaptor. Correct placement was confirmed with the presence of capnography curve. Sugammadex was administered and intravenous anesthesia was stopped. After complete recover of the neuromuscular blockade, the patient became conscious and was breathing spontaneously, with adequate tidal volumes and end tidal CO₂, maintaining oxygen saturation of 96-97% on room air, hemodynamically stable. She was shifted to the postanesthesia care unit and monitored carefully for postoperative respiratory distress, which is quite common with this tube. Her recovery was uneventful.

Discussion/Learning Points: There are few reports regarding anesthesia management for a Montgomery tube insertion. Because of the underlying clinical problem and the shared airway, this method is complicated. Potential risks include intraoperative airway loss, disconnection, or obstruction due to bleeding and surgical debris, as well as post-operative airway compromise. Thus, anesthesiologists must have knowledge of this technique. This case enlightens the importance of a multidisciplinary approach. Our efficient communication with the surgical team and sharing

of airway visualization were critical for the surgical outcome and to ensure adequate ventilation during all procedure, avoiding potential complications.

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