Case Report

ENDOTRACHEAL INTUBATION WITH OBTURATOR – A CASE REPORT

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ABSTRACT

Endotracheal intubation in patients with soft tissue defect due to a failed flap from previous surgery can be done with obturating the defect for mask ventilation. Here we report a case of soft tissue deficit with otherwise uncompromised of upper airway. This was done as an alternate approach to maintain a definitive airway

KEY WORDS: Obturator, mask ventilation, endotracheal intubation

INTRODUCTION

Endotracheal intubation with an upper airway deformity poses a challenge for the anaesthesiologist. The defect may be a bony deformity, soft tissue or both. In this article, we report a case of sof tissue defects due to a previous failed flap surgery posted for re-do flap. We managed this case with conventional endotracheal intubation by using an obturator for the defect for mask ventilation. This can be used as an alternate method for maintaining the airway in order to secure a definitive airway apart from ILMA & fibreoptic laryngoscopy.

CASE REPORT

A 42 year old male patient ASAII who was a Type II diabetic well under control with oral hypoglycaemics was operated for squamous cell carcinoma of right buccal mucosa where a primary excision was done leaving a defect in the right angle of the mouth. The patient was not willing for a myocutaneous flap during the first procedure & the defect was unattended to. The patient came for closure of the defect with a lattisimus dorsi myocutaneous flap.

On examining the airway of the patient, he had a mallampatti 2 airway with a soft tissue defect in the right measuring 5x4 cms. There was no bony defect. Thyromental distance was 8cms & neck movements were adequate.

Routine investigations were within normal limits. Blood sugars were under control.

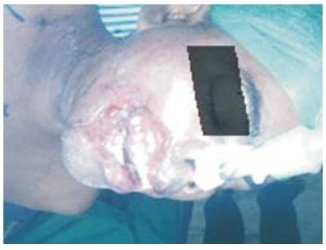
An obturator was prepared to occlude the defect which was made up of silicone material which was fitted into the defect.

Monitoring done were ECG, NIBP, SPO_2, $ETCO_2$, respiration. All emergency airway equipments like Bougie, LMA, I-Gel & tracheostomy set were kept ready.

Patient was premedicated with Inj. Glycopyrolate 0.2mg IM 45minutes before the procedure, Inj. Midazolam 1.5mg IV & Inj. Fentanyl 100μgms. The obturator made of silicone material was placed in the defect & was secured in place by an assistant & patient was preoxygenated with 100% O_2 for 5 minutes. During this period any leak was checked around the obturator & it was a minimal & the $ETCO_2$ reading showed a value of 36mmHg with adequate movement of the reservoir bag.

Patient was induced with Inj. Propofol 2mg/Kg IV. Mask ventilation was attempted & was able to ventilate. Inj. Succinyl Choline 2mg/Kg was given. Laryngoscopy was attemped with No. 4 size McIntosh blade & vocal cords were visualised. It was Cormack-Lehane grade II. Nasotracheal intubation

was done with 7.0 cuffed nasal RAE tube. Endotracheal tube was secured, throat pack was inserted & a balanced anaesthesia was maintained with O_2, N_2O & Isoflurane 1.2%. Muscle relaxant used was Inj. Atracurium 0.5mg/Kg bolus with intermittent Inj. Atracurium 0.1mg/Kg.



A deltopectoral flap was done and intraoperative period was uneventful. Blood loss was minimal & blood transfusion was not required.

At the end of surgery, volatile agent & N_2O was discontinued & patient was ventilated with 100% O_2

Patient was reversed from the effect of muscle relaxant with Inj. neostigmine 60μg/Kg & Inj. Glycopyrolate 10μg/Kg.

Throat pack was removed & vocal cords were visualised.

Patient was extubated after recovery of airway reflexes, recovery of higher functions & was having adequate tidal volume.

Vitals were stable after extubation & maintaining 100% saturation with O_2 supplement with face mask.

DISCUSSION

Obturators have been used during induction of anaesthesia for protection of teeth and also in patients with cleft palate to obturate the defect. In this case, an obturator was placed to occlude the soft tissue defect for mask ventilation as an alternate to intubating LMA or fibreoptic laryngoscopy. As this case required a naotracheal intubation, this method was an alternative to fibreoptic intubation. A nasotracheal tube is better tolerated by the patient than a orotracheal tube postoperatively if necessary, though in our case it was not required.

CONCLUSION

This technique for mask ventilation was an effective and an alternative method to obturate a soft tissue defect in an otherwise uncompromised upper airway.

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