Molar Intubation in a Big Intraoral Swelling: A Case Report

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ABSTRACT

TITE: Molar intubation in a big intra oral swelling.

INTRODUCTION: Molar intubation is a technique of laryngoscopy that can be used for anticipated difficult intubation in cases where standard laryngoscopy is difficult due to presence of intra oral mass that hampers laryngoscopy or that blocks on touch.

CASE REPORT: A twelve yr old boy presented with big intra oral swelling which was present since birth. Awake intubation with mild sedation was performed by right molar approach. Thereafter GA was administered and surgery was performed successfully.

CONCLUSION: Intubation by molar approach is advocated in cases of anticipated difficult airway where midline technique of intubation is traumatic or not feasible.

INTRODUCTION

Intubating patients with difficult airway is always challenging for Anaesthesiologist. Difficult airway due to intraoral swellings makes laryngoscopy difficult as these swellings occupy oral cavity thereby making glottis visualisation difficult. Also these swellings limit the space for manoeuvring the endotracheal tube which adds to difficulty in intubation.

This difficulty can be overcome by using molar approach of intubation. The Molar approach reduces the distance from the patient’s teeth to the larynx and prevents intubation of maculae structures into the line of view. A right molar approach was used for anticipated difficult intubation in cases where standard laryngoscopy is not feasible.

CASE REPORT

A twelve yr old boy presented with swelling in the floor of mouth. The swelling was present since birth and was gradually increasing in size till the present size which covered the whole of area between the tongue and mandibular mylohyoid muscle. The patient had difficulty in swallowing and speaking due to the swelling. There was no other significant history.

On examination his vital signs were stable. Patient’s mouth opening was adequate with Mallampati grading of 4(adequate to the large swelling under the tongue). The patient was unable to close his mouth due to the swelling. Patient was posted in elective ENT OT for excision of swelling. An awake intubation with mild sedation was planned for the patient.

Since our fibreoptic scope was out of order, a molar intubation was planned for the patient. In case intubation failed, cricothyrotomy had been obtained.

After counselling the patient for awake intubation, the patient was premedicated with 0.5mg glycopyrrolate. There after the patient was nasotracheally intubated with 4\(\times\)4 size laryngoscope and also 4\(\times\)4 laryngeal gaggles were administered.

The monitoring was attached including ECG, SpO2 and NIBP.

On intubation, the glottis was visualised. This reduces the distance from the patient’s teeth to the mouth.

In laryngoscopy with molar approach the laryngoscope blade is inserted along the groove between the tongue and the bismark point anterior to the teeth. All the time pressure is applied medially and internally pushing the tongue backwards.

The blade is advanced and it is made to pass posterior to the epiglottis till the glottis is visualised. This reduces the distance from the patient’s teeth to the larynx.

We planned Molar intubation for this patient as there was a huge swelling below the tongue making successful laryngoscopy through the midline approach almost impossible. We attempted right sided molar intubation as buccal mucosa of left side was adherent to the swelling and the right side was free. An assistant was required for pulling the right side of the mouth for intubation.

Similar technique of Molar approach also known as paraglossal technique has also been tried by others (4). Bondil et al used the term retromolar for the same variation of Paraglossal technique(4). Others like Ane et al (5) and Crippaete et al (6) advocated keeping the blade above the molar and turning the head to the left.

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A right molar approach was used for anticipated difficult intubation in cases where standard laryngoscopy is difficult due to presence of intra oral mass that hampers laryngoscopy or that blocks on touch.

CONCLUSION: Intubation by molar approach is advocated in cases of anticipated difficult airway where midline technique of intubation is traumatic or not feasible.

DISCUSSION

The cause of difficult laryngoscopy and visualization of glottis is multifactorial. It may be due to infra/intra lingual swellings, tumors of maxillary structures, prominent incisors etc. Molar intubation has been successful in cases of infra/intra lingual swellings and tumors of maxillary structures.

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A right molar approach was used for anticipated difficult intubation in cases where standard laryngoscopy is not feasible. Molar intubation is useful in patients of introral swellings where standard laryngoscopy is not possible and fibreoptic scope is not available in case of trachea masses prone to bleeding where vision can be obscured with fibreoptic scope. This technique is a useful alternative. Also to gain expertise in molar approach Anaesthesiologist should practice the technique on patients with normal airway.

REFERENCES


CONCLUSIONS

Molar intubation is useful in patients of introral swellings where standard laryngoscopy is not possible and fibreoptic scope is not available in case of trachea masses prone to bleeding where vision can be obscured with fibreoptic scope. This technique is a useful alternative. Also to gain expertise in molar approach Anaesthesiologist should practice the technique on patients with normal airway.

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