

Failure of LMA in a child with normal airway because of large tonsil – An unrecognized cause: case report

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Citation

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Abstract

The Laryngeal Mask Airway (LMA) is a supraglottic airway device that was invented by Dr. Archie Brain, a British anesthetist¹. The Classic LMA is the original LMA and is considered a general purpose device. It has been used extensively for different general surgical, urologic, orthopedic and ophthalmic procedures. It has also proved useful in place of endotracheal intubation in difficult airway situations in children. It has also gained wide usage for airway resuscitation and rescue. LMA has many advantages over endotracheal tube like: increased speed and ease of placement by inexperienced personnel, increased speed of placement by anaesthetists, improved haemodynamic stability at induction and during emergence, minimal increase in intraocular pressure following insertion, reduced anaesthetic requirements for airway tolerance, lower frequency of coughing during emergence, improved oxygen saturation during emergence, and lower incidence of sore throat in adults². But in some cases it is more difficult to insert LMA than intubation even in MPG 1 cases. Here we are presenting a case report of such unrecognized obstruction as, an enlarged palatine tonsil, which made impossible to insert LMA even though the child was of mallampati class I.

CASE REPORT

An 8 year child (hospital no: 28977) was posted for urethroplasty in plastic surgery O.T. in our S.S. hospital, IMS, BHU. He had mallampati class I with mouth opening 5 cm. flexion and extension movement were within normal limit. We planned general anaesthesia with classic LMA for him. After attaching ECG, NIBP, SpO₂, inj. Glycopyrrolate 0.2 mg, Ondansetron 2.5mg IV, inj pentazosine 15mg iv was given. After preoxygenation for 3 minutes inj. Propofol was given till loss of verbal command. Insertion of Classic LMA #2.5 was tried. After failure of two attempts LMA#2.0 was tried, but it could not be inserted also, after giving mask ventilation conventional laryngoscopy was performed. Then we found that his right tonsil (palatine) was enlarged which was preventing the LMA to go inside. Inj vecuronium 2.5mg iv was given and the child was ventilated for 2.5 minutes and then intubated with no 6.0 endotracheal tube easily.

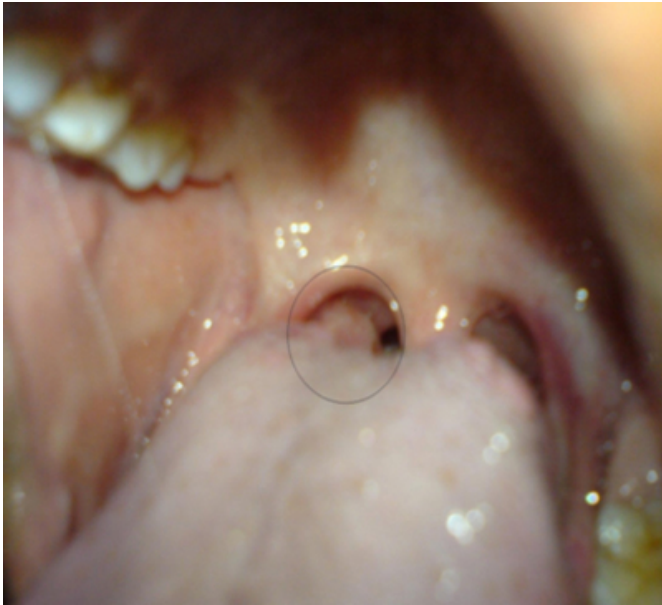
Figure 1

Figure 1: Child – normal mouth opening MPG- I (photo taken in post operative ward after surgery)



Figure 2

Figure 2: Large right tonsil- after pulling tongue (photo taken in post operative ward after surgery)



DISCUSSION

The laryngeal mask airway (LMA) is useful in the management of airway even in cases of difficult airways³. There are very few cases of failure of LMA even in a “cannot ventilate, cannot intubate” scenario⁴⁵. One report of failure of LMA in CVCI scenario, was published by Samir K. Patel et al⁶. We report that case as a failure to insert the LMA in a child having normal airway posted for a routine surgery.

The laryngeal mask airway (LMA) has challenged the assumption that tracheal intubation is the only acceptable way to maintain a clear airway and provide positive pressure

ventilation. Brain designed LMA as “an alternative to either endotracheal tube or the facemask for use with either spontaneous or positive pressure ventilation.”¹. As LMA has many advantages over ETT like more haemodynamic stability, less sympathetic stimulation, lower incidence of coughing during extubation and lower incidence of postoperative sore throat². These advantages made LMA more popular than ETT specially in paediatric cases.

Insertion of LMA is easier and needs no laryngoscopy, that’s why lot of cases is being done in supraglottic devices like LMA. Easy method of insertion without laryngoscopy made LMA a popular method to manage the cases of difficult intubation.

But is insertion of LMA always easier than intubation? This case report tells that as LMA is useful in cases of failed intubation, intubation may be useful in cases of failure of LMA. In children the possibility of enlarged tonsils should be kept in mind during use of LMA.

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