

## A COMPARISON OF THE LARYNGEAL TUBE WITH THE LARYNGEAL MASK AIRWAY DURING SPONTANEOUS VENTILATION IN PAEDIATRIC ANAESTHESIA

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**Objective:** To compare between laryngeal tube (LT) versus laryngeal mask airway (LMA) in terms of ease of insertion, quality of ventilation, haemodynamic response and complications in spontaneously ventilated paediatric patients undergoing general anaesthesia.

**Methodology:** A randomized prospective study was conducted on 80 premedicated paediatric patients of ASA 1 and 2, aged 2 to 10 years. They were divided into 2 groups ( $n = 40/\text{group}$ ), receiving either LT or LMA as airway device. After inhalational induction of anaesthesia with sevoflurane followed by fentanyl  $1.5 \mu\text{g.kg}^{-1}$ , the LT or the LMA was inserted and the patients breathed spontaneously throughout the surgery. Anaesthesia was maintained with nitrous oxide, oxygen and sevoflurane. The airway device was removed at the end of surgery with the patients fully awake. The speed and ease of insertion and the number of attempts needed to successfully secure the airway were recorded. The quality of ventilation as assessed by incidence of oxygen desaturations, frequencies of airway manipulations throughout the surgery and the end-tidal  $\text{CO}_2$  at various time intervals were recorded. Systolic blood pressure, diastolic blood pressure, mean arterial pressure and heart rate at different time intervals were recorded. The incidence of complications was also recorded.

**Results:** There was longer time and more number of attempts required for successful insertion for LT group as compared to LMA. The number of manipulations of device or patients after first attempt and the  $\text{ETCO}_2$  recorded at various time intervals was higher with the LT group. There was no statistical difference in episode of desaturation and haemodynamic changes. There was no difference in the incidence of complication between the two groups.

**Conclusion:** LT is not a suitable alternative to the LMA during general anaesthesia for spontaneously ventilated paediatric patients.