

**Comparison between the I-gel, The ProSeal and  
Classical Laryngeal Mask Airways in Paediatric  
Patients: Performance and Fiberoptic findings**

**Thesis**

**Submitted for partial fulfillment of The M.D  
IN Anaesthesia**

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## Summary

Supra-glottic airway devices have dramatically changed airway management in recent times, and it now plays a vital role in both routine anaesthesia and difficult airway management. Many devices have been invented in last decade following the introduction the classic Laryngeal mask airway. This requires assessment of performance and safety of these new devices in clinical practice and to compare them to currently available devices.

CLMA is the first supraglottic airway device while I gel and PLMA are a relatively new supraglottic airway device with three devices consist 15mm standard connector at proximal end attached to wide breathing tube, LMA has elliptical cuff surrounding ,its distal end to lie opposite glottic opening while I gel with no cuff .

Many studies were performed on supraglottic devices either assessing single device or comparing two or more devices. In our study we compared three devices CLMA, PLMA and I gel during spontaneous ventilation in paediatric patients as regards ease of insertion, time to achieve effective airway, ventilatory variables during spontaneous ventilation, airway sealing pressure, fiberoptic assessment of supraglottic orientation and perioperative adverse events.

In our study we compared the CLMA , PLMA and I gel during spontaneous ventilation in 60 pediatric patients with respect to ease of insertion , time needed to achieve effective airway , oropharyngeal leak pressure , fiber-optic assessment of anatomical position at distal end of

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the devices, ventilatory variables during spontaneous ventilation and adverse perioperative event.

In our work we found that I gel has easier insertion technique than CLMA and PLMA but the same time to achieve effective airway and no significant difference between the three devices as regarded oropharyngeal leak pressure during spontaneous ventilation , as regards fiberoptic score of supraglottic orientation , I gel has better score than CLMA and PLMA . The I gel has less adverse perioperative events.