

Evaluation of the Use of Proseal LMA in Patients Undergoing Elective Lower Segment Caesarean Section under General Anaesthesia: A Prospective Randomised Controlled Study

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Abstract : Anaesthesia for caesarean section poses challenges unique to the obstetric patient due to changes in the airway and respiratory system. The choice of anaesthesia for caesarean section depends on various factors however general anaesthesia (GA) is necessary for certain situations. Supraglottic airway devices are an emerging method to secure airway, especially in difficult situations. Of these devices, proseal -LMA (PLMA) is designed to provide better protection of the airway. The use of PLMA has been reported successfully as a rescue device in difficult intubation situations and in patients undergoing elective caesarean section without any complications. The study was prospective and randomised and was designed to compare PLMA in patients undergoing elective lower segment caesarean section (LSCS) with the endotracheal tube (ETT). Patients undergoing LSCS under GA belonging to ASA grade 1 and 2 were included. Patients with the history of fewer than 6 hrs of fasting, known/predicted difficult airway, obesity, gastroesophageal reflux disease, hypertensive disorder were excluded. A standard anaesthesia protocol was followed. All patients received aspiration prophylaxis. The airway was secured with either PLMA or ETT. Parameters noted were- ease of insertion, adequacy of ventilation, hemodynamic changes at insertion and removal of device, incidence of regurgitation and aspiration. Data was analysed by unpaired t- test, Chi-square /Fisher's test. The findings of our study indicated that PLMA was easy to insert (20.67 ± 6.835 sec) with comparable insertion time to TT (18.33 ± 4.971 , p 0.136) and adequate ventilation was achieved with very minimal hemodynamic changes seen with PLMA as compared to ETT at insertion and removal of devices (p 0.01). There was no incidence of regurgitation with the use of PLMA. The incidence of a postoperative sore throat was minimal (6.7%) with PLMA (p<0.05). PLMA appears to be a safe alternative to ETT for selected obstetric patients undergoing elective LSCS. Further study with a larger group of patients is required to establish the safety of PLMA in obstetric patients.

Keywords : caesarean section, general anaesthesia, proseal LMA, endotracheal tube

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