

COMPARISON OF DEXMEDITOMIDINE COMBINED WITH PROPOFOL AND FENTANYL COMBINED WITH PROPOFOL FOR LMA INSERTION IN SHORT SURGERIES PERFORMED UNDER GA

ABSTRACT

BACKGROUND AND AIMS:

Laryngeal mask airway is the most commonly used Supraglottic airway devices for short surgical procedures performed under general anaesthesia. LMA insertion needs adequate mouth opening and suppression of upper airway reflexes for its proper placement. Dexmedetomidine is the selective alpha 2 agonist with both anaesthetic and analgesic properties. Here in this study, we decided to compare the efficacy of Propofol combined either with dexmedetomidine or fentanyl in providing good insertion conditions for laryngeal mask airway.

MATERIALS AND METHODS:

This was a prospective, double blinded randomised control study conducted at Mahatma Gandhi memorial hospital, Trichy during the period of April 2015 – April 2016. The total sample size was 60 which included 2 groups, Group Fp - Propofol with fentanyl (30) and Group Dp - Propofol with Dexmedetomidine (30). Patients of ASA category I-II of age 18-60 years with weight 30-70 kg and MPC Category I-II undergoing elective superficial surgeries under GA were included in the study. After preoxygenation and premedication, Group Fp received 2 microgram/kg of Inj. Fentanyl in 100ml of normal saline over 10 minutes and Group Dp received 1 microgram/kg of Inj. Dexmedetomidine in 100 ml of NS over 10 minutes. After 3 minutes, Inj. Propofol 2 mg/kg was given to both the groups. 90 seconds after propofol injection, the first attempt of LMA insertion was made and ease of insertion of LMA was assessed. The ease of insertion of LMA was assessed with 1. Jaw

relaxation, 2.Coughing during LMA insertion,3.Number of attempts,4.Adequacy of ventilation and 5.Incidence of complications.If the first attempt of LMA placement was failed in either of the groups, additional dose of Inj.Propofol 0.5mg/kg was given and second attempt of LMA insertion was made. Jaw relaxation grade >2, Coughing grade >2 and adequacy of ventilation of grade 3 were considered as failure in LMA placement. Pre and Post insertion hemodynamics were also noted. Statistical analysis of data was done using student t test for parametric data,and Chi-square test for non parametric data using SPSS software, version 21.0.

RESULTS:

Group Dp was found to be superior in terms of first attempt success rate than that of group Fp. In group Fp,out of 30 patients, LMA was inserted in the first attempt in 24 patients while in group Dp all the LMA insertions were made in the first attempt.Jaw relaxation, adequacy of ventilation and incidence of complications were all comparable between the two groups. Fall in systolic BP, diastolic BP and heart rate was more in group Dp when compared to group Fp.

CONCLUSION:

We concluded that Dexmedetomidine when combined with propofol provides better insertion conditions for laryngeal mask airway than that of fentanyl combined with propofol. However there was increased incidence of bradycardia and hypotension in dexmedetomidine group necessitating more usage of vasopressors.

KEY WORDS: Dexmedetomidine,Propofol,Fentanyl,LMA.