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Introduction:

The laryngeal mask airway (LMA) is a supraglottic device which is used for general anesthesia [1]. Peripheral nerve injury as well as patient malposition, waste of manpower and time, especially in obese patients are considered as major reasons for LMA insertion in prone rather than supine position [2]. Also, the LMA insertion in prone patients can be lifesaving in case of unintentional extubations [3]. The present study aimed to evaluate the safety and efficacy of LMA insertion in prone

position. **Methods**:

In this cross sectional study, twenty eight participants in pilonidal sinus surgery were enrolled based on inclusion criteria. Cases with difficult airway as well as ages under 16 were excluded. After monitoring, the patients positioned prone on the surgical table on top of gel pads. The patient's head was turned laterally and were given midazolam, fentanyl and propofol. Disposable classic LMA was inserted after 60 seconds in prone position. A trolley was available for emergency situations. Ease of LMA insertion and ventilation, number of attempts for insertion, sore throat, hoarseness, trauma to mouth and teeth, and other complications were recorded [2, 4].After data collection, descriptive analysis was done.



The safety and efficacy of Laryngeal Mask Airway insertion in prone position



Results:

All twenty eight patients completed the study. The LMA insertion was successful in 82.1% of patients in first attempt. In one case, it was successful in third try. In one patient LMA insertion failed in prone position, so it was inserted in supine position and then the patient was turned prone. Four patients showed high airway pressure and difficult ventilation and two of them received muscle relaxant. In 14.2% of patients, the minor side effects were found including blood in LMA, sore throat and hoarseness. One patient also showed laryngospasm in **PACU** (post anesthetic care unit).

Conclusion:

Since the side effects of prone LMA insertion were not worse than supine position [5], it seems that LMA insertion in prone position can be safe and efficient in short time surgeries.

References

1. Usher, S., Use of the laryngeal mask airway in the prone position. Hospital Medicine, 2004. 65(4): p. 252-252.

2. Araújo, M., et al., Laryngeal mask airway in prone position in ambulatory surgery: a prospective observational study. Journal of Anesthesia and Clinical Research, 2015: p. 1-4. 3. Whitacre, W., L. Dieckmann, and P.N. Austin, An update: use of laryngeal mask airway devices in patients in the prone position. AANA journal, 2014. 82(2):p.101-7. 4. Abrishami, A., P. Zilberman, and F. Chung, Brief review: airway rescue with insertion of laryngeal mask airway devices with patients in the prone position. Canadian Journal of

Anesthesia/Journal canadien d'anesthésie, 2010. 57(11): p. 1014-1020.

5. Lopez, A., R. Valero, and J. Brimacombe, Insertion and use of the LMA SupremeTM in the prone position. Anaesthesia, 2010. 65(2): p. 154-157.

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