

*A Dissertation on*

**A COMPARATIVE STUDY OF EASE OF INSERTION,  
HEMODYNAMIC CHANGES AND POSTOPERATIVE ADVERSE  
EVENTS OF PROSEAL LARYNGEAL MASK AIRWAY VERSUS I GEL  
ABSTRACT**

**BACKGROUND & OBJECTIVES:**

The major responsibility of the anaesthesiologist is to provide adequate ventilation to patient. The most vital element in providing respiration is maintenance of patent airway. The tracheal intubation is the gold standard method for maintaining a patent airway during anaesthesia. The laryngeal mask airway has gained recognition as an acceptable device for securing the airway of patients during anaesthesia and emergency airway management within the hospital environment. The main aim of this study is to compare the two supraglottic airway devices, IGEL with Proseal LMA in clinical performance in elective **short** surgeries with **spontaneous ventilation**.

**METHOD:**

The study was conducted to evaluate the two airway device Proseal LMA and I – GEL in view of ease of insertion, number of attempts, hemodynamic changes and postoperative adverse events. The study was conducted to 60 ASA I & II patients of both sexes aged 18 – 50 years going

for elective surgical procedures with spontaneous ventilation. After taking permission from ethics committee and getting written informed consent from patients, the patients will be allotted randomly into 2 groups of 30 patients. One group will receive Proseal LMA and another group will receive I Gel.

Group-1: Patients received anaesthesia with Proseal LMA

Group-2: Patients received anaesthesia with I –Gel.

## **RESULTS:**

The ease of insertion of I-GEL was easy for 90% of cases (27) and 10% (3) of cases had difficult. The Proseal shows 83.3% cases (25) had easy in insertion and 16.7% of cases (5) had difficult in insertion. This is statistically significant in p value of  $< 0.05$

I-GEL shows 93.3% cases (28) had successful in first attempt and 6.7% of cases (2) had successful in second attempt. The Proseal had 83.3% of cases (25) successful in first attempt and 16.7% of cases (5) had successful in second attempt. This is statistically not significant has p value of  $> 0.05$

In duration of attempts I- GEL had mean duration of 14.57 with standard deviation of 2.1. The Proseal had mean duration of attempt shows 24.97 with standard deviation of 4.2. So in duration of attempts of I-GEL versus Proseal LMA was statistically significant has p value of  $< 0.05$ . Therefore, in view of duration attempts the I-GEL was better than Proseal

I-GEL had 6.7% of cases (2) shows blood staining in device after removal and 93.3% of cases (28) shows no blood staining in device after removal. Proseal had 26.7% of cases (8) shows blood staining in device after removal and 73.3% of cases (22) shows no blood staining in device after removal. This shows statistically significant in blood staining of device after removal with p value of  $< 0.05$ . So I- GEL was less blood staining in device than Proseal.

Above study shows in hemodynamic changes during insertion, intraoperative period and removal both groups had same changes no difference in data wise.

### **INTERPRETATION AND CONCLUSION:**

With the above study I –GEL was better in view of ease of insertion, placement was rapid and also less traumatic to airways than Proseal LMA. So I- GEL is a cheap and effective SGD alternative to Proseal LMA.

### **KEYWORDS:**

IGEL, Proseal LMA, supraglottic airway devices.