

# Comparison of Propofol versus Combination of the Sevoflurane-Propofol for Inclusion of Laryngeal Mask Airway (LMA) Insertion of Adults

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## Abstract

**Background:** In the case of suspected injury, the most significant duty for an anaesthetist is to protect the airway with minimal cervical spine movement. The most significant cause of morbidity and mortality in these patients is an rise in the number of intubation attempts or the number of unsuccessful intubations. The aim of the study is to compare the characteristics of insertion of LMA, and to calculate the extent of the respiratory problem and the cardiovascular problem between groups. **Subjects and Methods:** A proposed randomized research was organized on 60 patients grade of ASA I<sup>st</sup> & II<sup>nd</sup> aged in between 18 - 60 years were randomized into two groups go through minor surgical measures under the normal anesthesia. Inj. Fentanyl 1ug/kg was given to both the Groups of sick person. Propofol 2 mg/kg was given in a Group of P. Group SP patients were induced with 8% sevoflurane in the 2:1 ratios of the nitrous oxide to O<sub>2</sub> using vital capacity breathing technique with the Propofol 1 mg/kg. The characteristics of LA insertion, hemodynamics and extent of respiratory complications were assessed while inserting LMA. **Results:** There do no difference with groups along respects to the weight, sex, age, Patients in the Group SP get a lengthy time to losing of the eyelash responsive as of in comparison to the Patients in a Group of P. the time for the successful inclusion of the LMA was continued in Group of SP as in comparison with Group of P. All inclusions of LMA do victorious in the two groups. the period of the apnea has continued in the group of P as in comparison with the Group SP, & extent apnea has other frequent in a Group of P as in comparison with the Group SP. the total extent of problem associated to introduction of the anesthesia, were comparable with two groups. During inclusion of LMA, another patients carry movements in a Group of P. the extent of the vomiting (PONV) & postoperative nausea, Hence this was another frequent in a Group of SP as in comparison with the Group of the P. **Conclusion :** Sevoflurane is therefore an appropriate alternate to the propofol in adults for the LMA inclusion.

**Keywords:** Laryngeal Mask, Airway, Sevoflurane & Propofol.

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## Introduction

“LMA have attain broad popularity for the airway management in the time of surgery. the LMA is one of ingenious supra-glottic airway (ISA) instrument that is describe to give & manage a seal all over laryngeal inlet of instantaneous ventilation & also allows to control ventilation at the modest levels (<15cms of Water) of the +ve pressure. [1]

A supreme induction agent as for the LMA inclusion would give losing of sensibility, jaw relaxation, blunting of the uppermost airway reflexes fastly without cardiorespiratory adjustment. Utmost at present possible induction agents has been used as for the LMA inclusion, although sevoflurane is

the finest volatile assistant & propofol is possibly the finest intravenous assistant still neither is ideal. Presence or absence of opioid in Intravenous propofol is the induction assistant of the choice for the LMA due to this effect in airways reflexes. “However, propofol has been associated with several adverse effects, including hypotension, apnea, pain on injection, and excitatory patient movement. [2]

Sevoflurane is halogenated & versatile anesthetic assistant is nonirritating to the airway, & mask induction along this is agent combined along a severely low extent of coughing, breath-holding, & laryngospasm. Besides, low lipid solubility allows a rapid, induction a predictable rapid recovery &

smooth. Basic capacity breaths give nice conditions for the inclusion of LMA & the induction technique proving a big, inspired concentration of sevoflurane. Latterly basic capacity of breathing inhaled induction of the anesthesia along the sevoflurane have being used as alternate to intravenous induction in the adults. That process is fast, along slight excitatory pheno, big patient accepting, and well hemodynamic stability. Fast inclusion of the LMA later basic capacity of the breath induction can allow the help of SEVOFLURANE as an individual drug to the induction & smooth transition to maintain stage without a term of the apnea. Though, Sevoflurane is combined along late jaw relaxation & a lengthy duration for the inclusion of LMA.

Our aim of the study is to analyze the induction along Sevoflurane & propofol Vs PROPOFOL for inclusion of LMA, to check the quality of jaw relaxation, to compare the characteristics of insertion of LMA, and to calculate the extent of respiratory problem (coughing, laryngospasm, gagging and duration of apnea) and the cardiovascular problem in a Groups.

## Subjects and Methods

A proposed randomized research was organizing on 60 ASA grade 1<sup>st</sup> & 2<sup>nd</sup> patient & aged around 18 to 60 years that one is go through minor surgical methods covered general anesthesia. The pair of inpatients and the day cases do enclose this study. They are randomly grouped into two of thirty individuals. Group P propofol Group and Group SP-Sevoflurane induction supplemented by intravenous Propofol.

### Inclusion Criteria

Patients are of age around 18 to 60 years and ASA grade 1<sup>st</sup> & 2<sup>nd</sup> patients

### Exclusion Criteria

Morbidly obese (BMI > 30) patients, Patients necessitating endotracheal intubation, major method necessitating muscle relaxation & Patients with a history of gastroesophageal reflux, and Heavy smokers (>20 cigarettes/day)

A pre-anesthetic evaluation was done with detailed medical background and systemic examination with relevant investigations. Informed written approval go on taken among all the sick person. Nil per oral status go on persevere for all the sick person. An IV line was secured and monitoring of ECG, NIBP, and SPO2 was done. Patients go on randomly allot in-to group SP and Group P. Patients basic data like SPO2, NIBP, heart rate go on recorded. All patients received injection fentanyl 1ug/kg before introduction.

For all patients in a Group of SP, circle carbon-dioxide absorber circuit along a 2-Litre reservoir bag go on used. The circuit go on primed along sevoflurane 8.0 % in the 2:1 ratios of nitrous oxide to O<sub>2</sub> at fresh gas flow of 6 L /

min. During breathing 100 % of O<sub>2</sub> from separate system of breathing, patients are asked to get a deep inhale & exhale into residual amount. The cloak along primed circuit go on then fixed thoroughly over the patient's face. The patients do advised into inhale a vital capacity breath & hold it just as much as achievable. If essential, a 2<sup>nd</sup> breath go on taken. The starting of the induction go on taken just as a point at and that patients finished their vital capacity breath. When holding their breath, they are asked to free their eyes for the every ten s. Fail to do so go on taken as a losing of sensibility. That will be confirmed by test for the closing of the eyelash reflex.

At the closing of eyelash reflex & the patients accepted Propofol one mg per kg premixed along lidocaine (lidocaine 2% one ml is mixed along individual 20 milliliter syringe of the Propofol) for 15 s. Thirty seconds later the finalization of Propofol Induction (PI) allows the arm - brain circulation, (i.e., 45 s next the start of the PI), rest of the mouth opening was of assessed & if achievable LMA inclusion is attempted. If not, attempts are made every 30 sec up-to a maximal of four striving, anesthesia go on persevere along sevoflurane at the concentration of 8% in a 2:1 ratios of N<sub>2</sub>O to O<sub>2</sub> at six L per min.

Patients in group of P accepted induction along Propofol 2.5 mg/kg four premixed along lidocaine given by 30 sec. Loss of consciousness go on determine as for groups of SP. Time to loss of sensibility go on measured from the duration of the start of the injection of Propofol till losing of the eyelash reflex . 30 seconds later the finalization of PI, (i.e., 60.0 s next the start of PI), rest of mouth opened has assessed, and if achievable, LMA inclusion was pursued. If inaccessible, attempts do repeat till four tries, individual pursue preceded by the Propofol bolus 0.50 mg/kg IV. When apnea appears in patient among 3 groups, ventilation go on assisting manually between the LMA inclusion striving. Apnea go on evidenced by the absence of chest movements.

### The below data was recorded.

1. Several attempts at LMA inclusion.
2. Time is taken from the starting of induction to losing of jaw relaxation, eyelash reflex & successful inclusion of LMA.
3. Duration of apnea
4. NIBP, HR and SpO<sub>2</sub> do monitored from the initial stage of induction up to five minutes after introduction.
5. The presence of problem related to the anesthetic induction & inclusion of the LMA go on noted.

The standard procedures include a complete deflated LMA. It is held like a pen guided through the pharynx along the forefinger of the operator at the intersection of tube & the bowl, along the operator at the head of the patient and the LMA aperture faced caudally. Along the neck flexed & head

extended by adopting the hand below the occiput, under direct vision, the tip of cuff is pressed up against hard palate. The LMA is advanced in-to hypopharynx till the resistance is felt. The cuff is then inflated along air just sufficient to seal.

Once the LMA go on inserted anesthesia go on continued along sevoflurane 2.0% in 66.0% N<sub>2</sub>O in O<sub>2</sub>. And also, all the patients do given fentanyl 20.0ug every 30.0 min intraoperatively as required. The studies ended when the patients go on investigated to reach an enough anesthesia depth and go on well settled later the inclusion of LMA. Physical ventilation go on employed if it necessary. At the end time operation of the LMAs do removed along the patients still have anesthetized.

### Process of statistical analysis

The following techniques of statistical analyzation are used in that study. This SPSS 13.0 version & Excel software packages do used for the analysis & data entry process. The results are avg. (Standard deviation + mean) for individual parameter for endless numbers & percentage & data for categorical data presented in Tables and Figures. One-way ANOVA and student's' tests were used to calculate whether there go on a statistical difference.

### Result

There are 29 males and 31 females with gender distribution compared using the chisquare test & has not appeared to be statistically important with  $p=0.196$ .

In group P, a total of 30 patients with age ranged from a minimum of 24 years to 60 yr's along a mean life around 42.8 yr's and SD 9.86 were depicted. In a Group of SP, total of 30 patients with age ranged from a minimum of 22 years to 60 year with a mean age around 43.5 years and SD 9.98 were depicted. And there is no statistical significant variation in life of distribution. And data were in-comparison using T-test of student with  $p=0.786$ . Weight distribution go on in comparison using T-test of student & go on not appeared to be statistical significant with  $p=0.07$ .

A total of 60 patient's belonging to various departments like obstetrics & gynecology (20%), orthopedics (18.33%), general surgery (30%), urology (16.67%), and plastic surgery (16.67%) included in the study.

Time to completion of the successful inclusion and Time to losing eyelash reflex time to jaw relaxation earlier in Group 'P' as in comparison to and is statistically with  $p < 0.01$ .

Many attempts at inclusion of the LMA go on mandatory in Group of SP (mean=1.2) as in comparison to Group P (mean=1.60). The % of sick person who carry successful LMA inclusion at 1<sup>st</sup> attempt was higher in Group of SP (80.0%) as in comparison to Group P (43.33%). Duration of apnea in

group P which 114 with SD 72 whereas in Group of SP it was 24.97 with 9.57 & extent of apnea in group P was 83% whereas in Group of SP it was 20.0%. The duration of the apnea was significantly continued in group of P as in comparison with Group SP with  $p<0.001$  & extent of the apnea was another frequent in the Group P (80.0%) as in comparison with Group of SP (20.0%).

A comparability of heart rate among the 2 groups were done using the student" test. Baseline heart rates were comparable with no statistical important variation b/w the 2 groups.

On comparison, there is no important variation b/w the 2 groups in systolic BP throughout the induction with  $p = 0.098$ . There was a statistical significant variation in systolic BP in 1 minute after induction when in comparison between the 2 groups with  $p = 0.036$ . And there is no statistical significant variation between the 2 groups at 2<sup>nd</sup> minute ( $p = 0.228$ ) and 5<sup>th</sup> minute ( $p = 0.97$ ) after introduction.

There go on no statistically significant variation in diastolic BP in the preoperative period among the 2 groups with  $p = 0.382$ . On comparison, no significant variation was noted among the groups during induction ( $p = 0.069$ ), at only 1.0 min ( $p = 0.078$ ), at 2.0 min ( $p = 0.67$ ), and 5 min ( $p = 0.41$ ) after introduction.

During the inclusion of LMA, the cough was noted in one patient (3.33 %) in a Group P and two sick person (6.67 %) in a Group SP. Biting was noted in one patient (3.33%) in a Group P and two sick person (6.67%) in the Group SP. One patient (3.33 %) in each Group had a gag during the inclusion of LMA. No laryngospasm was observed in the two group. Movements during the inclusion of LMA was noted in 12 patients (40%) in group P and 6 patients (20%) in Group of SP. the extent of postoperative nausea & vomiting is another usual in group of SP (30%) as in comparison with the Group P (10%).

### Discussion

In our analysis mean time taken to losing eyelash reflex go on significantly shorter with Group of P in comparison with Group SP with  $p < 0.001$ . The Jaw relaxation has been taken a long time in Group SP with  $p < 0.0010$  which is more significant. for successful inclusion of LMA Group P has taken 87.27+- 7.6 seconds while Group SP has taken 111.27+- 7.19 seconds with  $p<0.05$ . the % of sick person who carry successful LMA inclusion at 1<sup>st</sup> attempt was higher in a Group SP as in comparison to Group P( $p < 0.01$ ) and many attempts at inclusion of LMA do mandatory in Group of SP compared to Group P( $p < 0.05$ ). "Our main difficulty regarding the quality of LMA insertion when using a combination OF SEVOFLURANE-Propofol was the initial difficulty in mouth opening. Interestingly, Muzi et al".<sup>[3]</sup> "also reported jaw tightness after sevoflurane anesthetic induction, which failed

**Table 1: Comparability of demographic details in both the groups**

Group	N	Mean age	SD	Min	Max	't' Value	'p' Value
<b>Age in both the groups</b>							
Group P	30	42.8	9.86	24	60	0.273	0.786
Group SP	30	43.5	9.98	22	60		
<b>Weight distribution</b>							
Group P	30	58.10	7.28	45	72	-1.848	0.070
Group SP	30	54.80	6.23	44	67		

**Table 2: Comparison of patients in various departments**

Group	Departments					Total
	OBGY	Ortho	Surgery	Urology	Plastic surgery	
Group P	5	7	8	5	5	30
	16.67%	23.33%	26.67%	16.67%	16.67%	100%
Group SP	7	4	10	5	4	30
	23.33%	13.33%	33.33%	16.67%	13.33%	100%
Total	12	11	18	10	9	60
	20%	18.33%	30%	16.67%	15%	100%

**Table 3: Characteristics of LMA Inclusion**

Events	Group P (n=30)		Group SP (n=30)		't' Value	'p' value
	Mean	SD	Mean	SD		
time to loss of eyelash responsive (s)	40.73	3.51	49.33	3.60	9.359	<0.01
Time to the jaw relaxation (s)	75.83	7.66	92.83	7.66	8.594	<0.01
time to completion of the successful inclusion of LMA (s)	87.27	7.61	111.27	7.19	12.56	<0.01
Number of attempts	1.6	0.56	1.2	0.41	-3.51	<0.03
Duration of apnea	114.63	72	24.97	9.57	-6.76	< 0.001

to insert the LMA in several sick person. Similarly, Hall et al,<sup>[4]</sup> reported longer time to jaw relaxation with sevoflurane compared with Propofol, although they did not postulate any reasons for it". The similar description for poor mouth opening in our patients is the lagging time while and that results in delay in the initial attempts at insertion. Additionally, relaxation jaw muscles sufficiently for a jaw thrust can reflection of enough depth of anesthesia. Though, Inomata and Nishikawa 39 dispute the importance of that lagging time. They talk back

that is not likely to be important along sevoflurane due to its low blood - gas partition co-efficient.

Another achievable description is the variation in jaw relaxation b/w Propofol & sevoflurane. Propofol is well called a relaxant effect on jaw muscles and inhaled anesthetics sometimes can cause increased muscle tone & apastictly. Therefore, for a same type depth of anesthesia, there can be higher jaw relaxation along Propofol. Because an attempt to open the

**Table 4: Comparison of Hemodynamic parameters between the two groups**

Pulse	Group P (n=30)		Group SP (n=30)		't' Value	'p' Value
	Mean	SD	Mean	SD		
Pre	84.77	5.57	84.20	5.78	-0.387	0.70
Induction	82.27	5.53	83.63	5.50	0.960	0.34
1 min	81.93	5.22	85.77	9.85	1.884	0.065
2 min	80.67	5.34	83.27	10.17	1.239	0.220
3 min	80.13	5.24	81.30	8.23	0.655	0.515
<b>Systolic BP</b>						
Pre	127	9.80	131	8.1	1.75	0.085
Induction	120.1	9.1	124.97	12.97	1.683	0.098
1 min	112.2	9.34	118.1	11.8	2.15	0.036
2 min	108.67	8.48	111.67	10.47	1.22	0.228
3 min	103.20	9.98	103.30	10.28	0.38	0.97
<b>Diastolic BP</b>						
Pre	81.40	4.58	82.83	7.64	0.882	0.382
Induction	76.50	6.73	79.93	7.60	1.85	0.069
1 min	70.50	5.57	73.33	6.60	1.8	0.078
2 min	67.97	4.66	67.13	9.58	-0.428	0.67
5 min	64.5	10.51	66.37	6.46	0.828	0.41

**Table 5: Extent of complications during LMA insertion**

Complications	Group P (n=30)	Group SP (n=30)
Cough	1 (3.33%)	2(6.66%)
Biting	1(3.33%)	2(6.66%)
Gagging	1(3.33%)	1(3.33%)
Movements	12(40%)	6(20%)
Post-operative nausea and vomiting	3(10%)	9(30%)

mouth was considered as an attempt at insertion, time to success inclusion of LMA was continued in Group of SP as in comparison to Group P Small dose of the Propofol in Group of SP (1mg/kg) as in comparison to Group P (2.5mg/kg) may also be the explanation for a long time they had taken for successful inclusion of LMA in Group of SP as in comparison to Group P. In contrast to jaw tightness, finest attenuation of the laryngeal reflexes can be produced along both sevoflurane and Propofol. “Because of the combination OF SEVOFLURANE with Propofol in Group SP, finally, the ideal conditions for inclusion of LMA were produced with less number of attempts and with higher rates of successful insertion of LMA at first attempts in Group of SP as in comparison to Group P. Priya et al,<sup>[5]</sup> in their research noted the time to loss of the eyelash reflex was shorter with Propofol 2.5 mg/kg (41.7 +-10) than sevoflurane 8.0% in 50% N2O induction (51+-10) with p =

0.02. But they found no difference in the meantime to LMA insertion between the two groups (p = 0.65)”. They found that number of attempts & the number of successful insertions of LMA were similar in both of the group of P. Concluded that Propofol is much finer than sevoflurane for LMA inclusion using losing of eyelash reflex the endpoint of induction possibly due to finer jaw relaxation. Even this Propofol took less duration for induction in comparability along sevoflurane.

“Sahar M Siddik - Sayyid et al,<sup>[6]</sup> in their research noted time to loss eyelash reflex was shorter with Propofol 3 mg/kg (39+-9sec) than sevoflurane 8% (45+-12sec) and sevoflurane-propofol (47+-12sec) with p<0.031, time for jaw relaxation was shorter with Propofol (73+-18 sec) than sevoflurane (140+-42sec) and sevoflurane-propofol (91+-15sec), and duration to successful insertion of LMA in propofol Group (84+-22sec) was shorter than sevoflurane

Group (162+-51sec) and sevoflurane propofol Group (108+-18)". They found the successful inclusion of LMA at the first attempt is more with sevoflurane-propofol (93.5%) than with Propofol (61.5%) sevoflurane (46%) and fewer number attempts were required in the sevoflurane-propofol Group than other two groups with  $p < 0.05$ . These findings were similar to what we found in our study. Mamata G. Patel et al,<sup>[7]</sup> in their study observed that time duration to loss of eyelash responsive is shorter for propofol 3 mg/kg (73.9+-5.72sec) than sevoflurane 8% (103.33+-10.49sec) with  $p < 0.01$  and time duration to successful insertion of PLMA was equal between the 2 groups with  $P > 0.05$ . "Successful insertion of PLMA insertion at the first attempt was comparable in both the groups with  $p > 0.05$  and there is no difference in the number of attempts for inclusion of LMA with  $p > 0.05$ .

Ravi Kumar Koppula et al,<sup>[8]</sup> in their research noted that the time to loss of eyelash responsive go on shorter for sevoflurane compared to propofol with  $p = 0.001$ , time to jaw relaxation go on comparable in both groups with  $p = 0.155$ , and time to successful insertion of LMA were similar between the 2 groups with  $p = 0.63$ . Successful insertion of LMA at first attempt and number of attempts were similar between the 2 groups. Hence they ended that Propofol is considered as an alternative to sevoflurane for inclusion of LMA.

In our research, the duration of the apnea was significantly lengthy in group P (14.63+-72) as in comparison with Group SP (24.97+-9.57) with  $p < 0.001$  & the extent of apnea was another usual in group of P as in comparison to Group SP. "Ismail Kati et al,<sup>[9]</sup> in their study observed that the extent of apnea is 40% in the patients with the propofol Group and 0% in patients with the Sevoflurane group". "Hence they concluded that the extent of apnea is significantly more common with Propofol than with sevoflurane induction which is consistent with our study. Sahar M Siddik - Sayyeid et al,<sup>[6]</sup> in their research noted that the extent of apnea is more common in the propofol Group (84%) than the sevoflurane-propofol Group (16%) and sevoflurane Group (7%), & duration of the apnea was significantly longer in propofol Group than other two groups with  $p < 0.001$ ". "Hence they concluded that the incidence and duration of apnea are more common with Propofol induction than with sevoflurane or with a combination OF SEVOFLURANE and propofol induction than with sevoflurane or with the combination OF SEVOFLURANE and Propofol. We also found similar results in our studies. Shao, Guiquian, Zhang et al,<sup>[10]</sup> in their research noted that the extent of the apnea was higher with Propofol induction than Tidal volume breath and Vital capacity breath techniques of induction with sevoflurane and propofol". We also found similar results in our studies. However in no patients, the duration of apnea continued for lengthy than 1 minute, and none required assisted ventilation. Hence they concluded that apnea during LMA insertion is more

common with Propofol than with sevoflurane introduction. These findings are similar to what we found in our studies."

In our research, Baseline heart rates were compare with no statistical important variation b/w the 2 groups. There was a gradual decrease in heart rate in group P from a mean of 84.77 with SD 5.57 at pre induction period to mean of 80.13 with SD 5.24 at 5 minutes after induction, whereas in Group SP it was decreased from a mean of 84.20 with SD 5.78 at pre induction period to 81.30 with SD 8.23 at 5 minutes after induction but this did not achieved a significant variation between the two groups during the induction, and at 1 minute, 2 minute and 5 minutes after introduction.

In our research, Base line heart rates were compare with no statistical important variation between the 2 groups. There was a gradual decrease in heart rate in group P from a mean of 84.77 with SD 5.57 at pre induction period to mean of 80.13 with SD 5.24 at 5 minutes after induction, whereas in Group SP it was decreased from a mean of 84.20 with SD 5.78 at pre induction period to 81.30 with SD 8.23 at 5 minutes after induction but this did not achieved a statistical significant variation between the 2 groups during the induction, and at 1 minute, 2 minutes and 5 minutes later introduction. In our research, there is a significant fall of systolic BP in each Group during induction and 1<sup>st</sup> minute, 2<sup>nd</sup> minute, 5<sup>th</sup> minute after introduction. On comparison there is no important variation b/w the 2 group in systolic BP during introduction. There was statistical significant variation in the systolic BP at 1 min when in comparison between the 2 groups with more fall in propofol group P ( $p < 0.036$ ) but there is no statistical variation between the 2 groups at 2<sup>nd</sup> minute and 5<sup>th</sup> minutes after introduction. In our studies, there is a significant fall of systolic BP in each Group during induction and 1<sup>st</sup> minute, 2<sup>nd</sup> minute, 5<sup>th</sup> minute after introduction. On comparison there is no important variation b/w the 2 group in systolic BP during introduction. There was statistical significant variation in the systolic BP at one minute when in comparison between the 2 groups with more fall in Propofol Group ( $p < 0.036$ ) but there is no statistical variation between the 2 groups at 2<sup>nd</sup> minute and 5<sup>th</sup> minutes after introduction.

In our research, there go on a significant decreased in diastolic BP in both the Group but on comparison, no significant variation was noted between the two groups.

In our research, occurrence of problem like coughing, biting, gagging & laryngospasm while induction & LMA inclusion did not reach statistical important variation b/w the 2 groups. "In a similar study conducted by Priya et al,<sup>[5]</sup> the features like coughing, gagging and patient movements didn't meet statistical significance". Beverly K Philip et al,<sup>[11]</sup> in their analysis noted more airway - related events (hiccough, cough) in the sevoflurane pool and more hemodynamic events in the propofol Group and that is consistent along our study. Ismail Kati et al,<sup>[9]</sup> noted that there is no statistical significant

variation between the sevoflurane and propofol groups in terms of complications occurring during LMA inclusion. “Lian Kah Ti et al,<sup>[8]</sup> in their research noted that over all extent of complications related to LMA insertion was higher in propofol Group with  $P < 0.01$ ”.

“In our study we noted that there is more extent of post-operative nausea and vomiting in sevoflurane Group (30%) than sevoflurane-propofol group P (10%). Mamata Patel et al,<sup>[7]</sup> in their research noted 6.66% of patients in sevoflurane Group complained of nausea in postoperative period but this was statistically insignificant when compared with Propofol Group P. “Sahar M Siddik-sayyid et al,<sup>[6]</sup> in their research noted that extent of post-operative nausea and vomiting was more frequent in sevoflurane-propofol Group (27%) as in comparison with Propofol Group (8%). These findings are similar to have we found in our study”. First description is that the propofol has antiemetic properties. Secondly, sevoflurane may cause frequent PONV. The PONV can be a process of the first large not diluted OF SEVOFLURANE or it can be caused by air and gases swallowed in-to stomach while anesthetic Introduction.”

## Conclusion

Many attempts at inclusion of the LMA go on mandatory in Group of SP as in comparison to Group P. the duration of the apnea was continued in group of P as in comparison with Group SP, & the extent of apnea was another usual in group of P as in comparison with Group SP. the overall extent of problem related to induction of anesthesia, such as coughing, hiccup, laryngospasm & gagging were comparable with the two groups. During inclusion of LMA, another patients carry movements in Group of P. the extent of postoperative nausea, and vomiting (PONV) was another frequent in a Group SP as in comparison along Group P.

Although sevoflurane is combined along nice hemodynamic stability in our sample, the anaesthesia given with Propofol is superior in efficiency. When compared to propofol, prolonged jaw relaxation with sevoflurane may delay the inclusion of the LMA. No one of the patients as indicated by the absence of blood in the LMA later removal in the pair classes, had trauma during insertion. Patients receiving propofol complained of discomfort during the injection process and patients receiving sevoflurane complained of odour while holding the cloak. Sevoflurane is therefore an appropriate alternative to propofol in adults for LMA inclusion.

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