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A Comparative Evaluation of Baska Mask Versus I-gel Supraglottic Airway Devices in Patients Undergoing Surgery Under General Anaesthesia: A Prospective Randomized Controlled Study

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ABSTRACT

Background: Supraglottic airway devices (SGADs) have become an integral part of modern airway management because of their ease of insertion, reduced airway stimulation, and lower incidence of postoperative complications compared to endotracheal intubation. The Baska Mask and I-gel are advanced SGADs designed to provide effective airway sealing and ventilation during general anaesthesia. This study was conducted to compare the clinical performance of the Baska Mask and I-gel in patients undergoing elective surgical procedures.

Materials and Methods: This prospective, randomized, comparative study was conducted on 60 adult patients (ASA physical status I–II) undergoing elective surgeries under general anaesthesia. Patients were randomly allocated into two groups of 30 each: Group B (Baska Mask) and Group I (I-gel). Parameters evaluated included insertion time, number of insertion attempts, ease of insertion, oropharyngeal leak pressure (OLP), hemodynamic responses, oxygen saturation, and postoperative complications. Statistical analysis was performed using SPSS version 25.0, and a p-value <0.05 was considered statistically significant.

Results: The mean insertion time was slightly longer in the Baska Mask group than in the I-gel group (21.93 ± 8.05 seconds vs. 18.67 ± 4.02 seconds; p = 0.0531). First-attempt insertion success was achieved in 86.7% and 90.0% of patients in the Baska Mask and I-gel groups, respectively (p = 1.0000). The Baska Mask demonstrated a significantly higher oropharyngeal leak pressure compared with the I-gel (33.47 ± 3.05 mmHg vs. 28.57 ± 1.59 mmHg; p < 0.0001). Hemodynamic parameters were comparable between the groups, although transient differences in pulse rate and diastolic blood pressure were observed. Oxygen saturation remained within normal limits in both groups, with marginally higher values in the Baska Mask group. Postoperative complications were generally mild; trauma and pharyngeal pain were more frequent with the Baska Mask, while blood staining of the device and nausea occurred infrequently in the I-gel group.

Conclusion: Both the Baska Mask and I-gel were effective and safe supraglottic airway devices for elective surgeries under general anaesthesia. The Baska Mask provided significantly higher oropharyngeal leak pressure and superior airway sealing, whereas the I-gel demonstrated slightly faster insertion and fewer airway-related complications. The choice of device should be guided by clinical requirements and operator preference.

Keywords*: Baska Mask; I-gel; Supraglottic Airway Device; Oropharyngeal Leak Pressure; Airway Management; General Anaesthesia; Hemodynamic Response; Elective Surgery.*

INTRODUCTION

Airway management is a fundamental component of modern anaesthetic practice and is essential for maintaining adequate oxygenation and ventilation during surgical procedures. Endotracheal intubation has traditionally been regarded as the gold standard for airway management because it provides a definitive airway, facilitates controlled ventilation, and protects against pulmonary aspiration.[1] However, it is an invasive technique associated with significant sympathetic stimulation resulting from laryngopharyngeal and tracheal manipulation, leading to tachycardia, hypertension, and dysrhythmias.[1,2] These hemodynamic responses may be detrimental in patients with cardiovascular or cerebrovascular disease. Additionally, postoperative complications such as sore throat, hoarseness, coughing, and airway trauma are frequently reported following tracheal intubation.[3,4]To overcome these limitations, supraglottic airway devices (SGADs) were developed and have revolutionized airway management over the past three decades. SGADs provide an effective airway without requiring direct laryngoscopy or passage of a tube through the vocal cords, thereby reducing airway stimulation and associated physiological stress responses.[5,6] They are generally easier to insert, require less anaesthetic depth and neuromuscular blockade, and are associated with smoother emergence and lower postoperative airway morbidity.[7]The introduction of the classic laryngeal mask airway (LMA) by Brain in the 1980s marked a major advancement in airway management.[5] However, first-generation devices lacked gastric drainage channels and provided limited protection against aspiration. Consequently, second-generation SGADs were developed with improved sealing mechanisms, gastric drainage ports, and enhanced airway protection, making them suitable for positive pressure ventilation and a wider range of surgical procedures.[6,7]Among these devices, the I-gel has gained widespread acceptance in contemporary anaesthesia practice. Introduced in 2007, the I-gel features a non-inflatable thermoplastic elastomer cuff designed to conform anatomically to the perilaryngeal structures, creating an effective seal without cuff inflation.[8,9,12] This design minimizes tissue compression and mucosal ischemia while simplifying insertion. The device also incorporates a gastric drainage channel, integrated bite block, and buccal stabilizer. Clinical studies have demonstrated high insertion success rates, favorable oropharyngeal leak pressures (OLP), minimal airway trauma, and reliable ventilation with the I-gel.[1,8,9]More recently, the Baska Mask®, developed by Proact Medical Ltd., Australia, has been introduced as a newer-generation SGAD with several innovative features.[10,11] It utilizes a self-energizing membranous cuff that dynamically adjusts during positive pressure ventilation, creating a seal that improves with increasing airway pressure.[10,11] This mechanism eliminates cuff inflation and reduces the risk of pressure-related mucosal injury. The device also includes an esophageal drainage channel, integrated bite block, large sump cavity, and lateral suction port for continuous drainage of pharyngeal secretions.[10,13]The dynamic sealing mechanism of the Baska Mask has been reported to provide higher oropharyngeal leak pressures than several other SGADs, making it particularly useful during positive pressure ventilation and surgeries requiring elevated airway pressures.[10,11] Important factors determining the clinical utility of SGADs include ease and speed of insertion, insertion success rate, airway sealing efficacy, fiberoptic positioning, hemodynamic responses, and postoperative complications.[10,11]Although both the I-gel and Baska Mask have demonstrated favorable clinical performance, direct comparative evidence remains limited. Therefore, the present prospective randomized study was undertaken to compare the clinical performance of the Baska Mask and I-gel in adult patients undergoing elective surgery under general anaesthesia, with particular emphasis on insertion characteristics, airway sealing efficacy, hemodynamic responses, and perioperative complications.

MATERIALS AND METHODS

This prospective, randomized, comparative study was conducted in the Department of Anaesthesiology at Jawaharlal Nehru Medical College and Hospital, Aligarh Muslim University, Aligarh, India, after obtaining approval from the Institutional Ethics Committee (IECJNMC/1143). The study was registered with the Clinical Trials Registry–India (CTRI No. CTRI/2025/04/085822). Written informed consent was obtained from all participants before their enrollment in the study.The study was carried out over a period of two years from April 2023 to March 2025.

Study Population and Sample Size

A total of 75 patients were assessed for eligibility. Fifteen patients did not fulfill the inclusion criteria and were excluded from the study. The remaining 60 patients were enrolled and randomly allocated into two groups comprising 30 patients each (Figure 1).

- **Group B (n = 30):** Patients in whom the Baska Mask® was inserted.
- **Group I (n = 30):** Patients in whom the I-gel was inserted.

The sample size was calculated using a study power of 90% and a type I error of 5%. Based on previously reported mean ± standard deviation values of oropharyngeal leak pressure (OLP) for the Baska Mask (23.5 ± 4.9 cm H_2O) and the I-gel (28.58 ± 6 cm H_2O), a minimum of 30 patients per group was required.

Inclusion Criteria

Patients meeting the following criteria were included in the study:

- Patients who provided written informed consent.
- Age between 20 and 60 years.
- Body weight between 40 and 80 kg.
- American Society of Anesthesiologists (ASA) physical status I or II.
- All Mallampati grades.
- Mouth opening greater than 2.5 cm.

Exclusion Criteria

Patients were excluded if they met any of the following criteria:

- Presence of oral cavity pathology or mouth opening less than 2.5 cm.
- Expected surgical duration exceeding 2 hours.
- Full stomach status due to trauma, pregnancy, morbid obesity, or a history of gastric regurgitation or heartburn.
- Patients at risk of gastroesophageal reflux, including those with hiatal hernia.
- Patients unwilling to participate in the study.

Pre-Anaesthetic Evaluation

All patients underwent a detailed pre-anaesthetic evaluation. A comprehensive medical history was obtained, followed by a thorough physical examination and routine laboratory investigations as indicated. The anaesthetic procedure was explained to all patients in a language they could understand, and written informed consent was obtained.

Randomization

The enrolled patients were randomly assigned to either Group B or Group I using a computer-generated randomization sequence. Group allocation was concealed using sealed opaque envelopes, which were opened immediately before induction of anaesthesia.

Anaesthetic Technique

Upon arrival in the operating room, standard monitoring including electrocardiography, non-invasive blood pressure measurement, pulse oximetry, and capnography was instituted.All patients received intravenous midazolam 0.03 mg/kg and intravenous fentanyl 2 μg/kg as premedication. Preoxygenation was performed with 100% oxygen for three minutes. Anaesthesia was induced using intravenous propofol 2 mg/kg. Neuromuscular blockade was achieved with intravenous succinylcholine 1.5 mg/kg. Following adequate muscle relaxation, the allocated supraglottic airway device (Baska Mask® or I-gel) was inserted according to the manufacturer's recommendations.

Outcome Measures

1. Oropharyngeal Leak Pressure

Oropharyngeal leak pressure was measured 10 minutes after successful device insertion. The adjustable pressure-limiting valve was closed to 40 cm H_2O with a fresh gas flow of 3 L/min. The airway pressure at which an audible leak was detected was recorded as the leak pressure while the patient remained apneic.

2. Time Required for Device Insertion

Insertion time was defined as the interval from insertion of the device into the oral cavity until the appearance of a square-wave capnographic trace indicating successful ventilation. The duration was measured using a stopwatch. If effective ventilation was not achieved or an adequate seal was not obtained, the device was removed and reinserted. The cumulative time for all insertion attempts was recorded. A decrease in oxygen saturation (SpO_2) below 92% was considered a failed insertion.

3. Number of Insertion Attempts

The number of attempts required for successful placement was recorded.

- **First attempt:** Successful placement without removal of the device from the oral cavity.
- **Second attempt:** Reinsertion after removal following an unsuccessful first attempt.
- **Failure:** Inability to achieve successful placement after two attempts.

An attempt was defined as each insertion of the device after complete removal from the oral cavity.

4. Fiberoptic Assessment of Device Position

The anatomical position of the supraglottic airway device was evaluated using a fiberoptic bronchoscope. The laryngeal view was graded according to the Percentage of Glottic Opening (POGO) score:

- **Grade I:** Full view of the glottis (POGO 100%).
- **Grade II:** Partial view including the posterior commissure (POGO 50%).
- **Grade III:** Only arytenoid structures visible (POGO 0%).

5. Ease of Device Insertion

Ease of insertion was assessed using the following grading system:

- **Grade I:** Easy insertion without resistance on the first attempt.
- **Grade II:** Insertion requiring more than one attempt or associated with resistance.

- **Grade III:** Failure to insert the device.

6. Hemodynamic Parameters

Heart rate (HR) and mean arterial blood pressure (MABP) were recorded at the following time intervals:

- Baseline (before induction of anaesthesia).
- Immediately after device insertion.
- Three minutes after insertion.
- Five minutes after insertion.

7. Postoperative Complications

Patients were monitored for airway-related complications following device removal. The following complications were recorded:

- Coughing
- Oral or airway bleeding
- Trauma to lips, tongue, or teeth
- Nausea and vomiting
- Sore throat
- Dysphagia
- Dysphonia

The airway device was also inspected for the presence of visible blood staining as an indicator of airway trauma.

8. Assessment of Sore Throat

Postoperative sore throat was assessed at discharge from the recovery room using a four-point grading scale:

- **Grade 0:** No pain on coughing.
- **Grade 1 (Mild):** Pain only during coughing or deep breathing, absent at rest.
- **Grade 2 (Moderate):** Pain present at rest but tolerable.
- **Grade 3 (Severe):** Severe pain present at rest.

Statistical Analysis

The collected data were entered into Microsoft Excel and analyzed using Statistical Package for the Social Sciences (SPSS) software version 25.0 (IBM Corp., Chicago, USA). Categorical variables were expressed as frequencies and percentages, whereas continuous variables were presented as mean ± standard deviation (SD).The normality of quantitative data was assessed using the Shapiro–Wilk test. Continuous variables between the two groups were compared using the Independent Student's t-test. Categorical variables were analyzed using the Chi-square test. Fisher's Exact test was applied whenever the expected frequency in any cell was less than five. A p-value of less than 0.05 was considered statistically significant.

RESULTS

A total of 60 patients were included in the study, with 30 patients each in the Baska Mask group and I-gel group. The baseline characteristics of the study population are shown in Table 1 and Figure 1. The mean age was 38.13 ± 12.28 years in the Baska Mask group and 37.02 ± 11.52 years in the I-gel group, with no statistically significant difference between the groups ($p = 0.5538$). Mean body weight was also comparable between the Baska Mask group and I-gel group (57.62 ± 6.76 kg vs 57.47 ± 6.12 kg; $p = 0.975$). A statistically significant difference was observed in gender distribution ($p = 0.0037$) and Mallampati grade distribution ($p = 0.0006$), whereas ASA grade distribution was comparable between the groups ($p = 0.5308$).

Insertion characteristics and airway seal parameters are presented in Table 2. The mean time of insertion was slightly longer in the Baska Mask group compared to the I-gel group (21.93 ± 8.05 seconds vs 18.67 ± 4.02 seconds), although the difference was not statistically significant ($p = 0.0531$). Successful insertion on the first attempt was achieved in 26 patients (86.7%) in the Baska Mask group and 27 patients (90.0%) in the I-gel group, with no significant difference between the groups ($p = 1.0000$). Grade I insertion was observed in 25 patients (83.3%) in the Baska Mask group and 26 patients (86.7%) in the I-gel group ($p = 0.78$). The mean oropharyngeal leak pressure was significantly higher in the Baska Mask group than in the I-gel group (33.47 ± 3.05 vs 28.57 ± 1.59; $p < 0.0001$).Hemodynamic and oxygenation parameters are summarized in Table 3. Baseline pulse rate was comparable between the two groups ($p = 0.1164$). Immediately after insertion, pulse rate was significantly higher in the I-gel group compared with the Baska Mask group (94.07 ± 9.92/min vs 86.20 ± 10.12/min; $p < 0.0001$). At 3 minutes post-insertion, pulse rate was significantly higher in the Baska Mask group (96.40 ± 4.48/min vs 87.17 ± 11.85/min; $p < 0.0001$), while values became comparable at 5 minutes ($p = 0.1164$).Systolic blood pressure was significantly higher in the I-gel group at pre-induction (125.57 ± 10.59 mmHg vs 121.40 ± 9.87 mmHg; $p = 0.0010$), but no significant difference was observed immediately after insertion, at 3 minutes, or at 5 minutes post-insertion, as shown in Table 3. Diastolic blood pressure was comparable at pre-induction and immediately after insertion; however, significantly lower DBP values were observed in the Baska Mask group at 3 minutes (74.60 ± 9.49 mmHg vs 77.07 ± 8.35 mmHg; $p = 0.0345$) and 5 minutes (72.63 ± 4.92 mmHg vs 77.20 ± 6.41 mmHg; $p = 0.0013$). Mean arterial pressure was significantly higher in the I-gel group at pre-induction ($p = 0.0225$), but remained comparable between groups at all post-insertion time points. Oxygen saturation was slightly but significantly higher in the Baska Mask group immediately after insertion, at 3 minutes, and at 5 minutes post-insertion, as shown in Table 3.Postoperative complications

are shown in Table 4 and Figure 2. Trauma was observed in 6 patients (20.0%) in the Baska Mask group and in none of the patients in the I-gel group. Blood on the device was observed in 2 patients (6.7%) in the I-gel group and none in the Baska Mask group (p = 0.472). Sore throat was reported by 6 patients (20.0%) in the Baska Mask group and 4 patients (13.3%) in the I-gel group, with no statistically significant difference (p = 0.729). Nausea was reported in 1 patient (3.3%) in the I-gel group, while pharyngeal pain was reported in 6 patients (20.0%) in the Baska Mask group.

Table 1. Baseline Characteristics of the Study Population

Variable	Baska Mask Group (n = 30)	I-gel Group (n = 30)	p-value
Age (years), Mean ± SD	38.13 ± 12.28	37.02 ± 11.52	0.5538
Weight (kg), Mean ± SD	57.62 ± 6.76	57.47 ± 6.12	0.975
Gender			0.0037
Female	19 (63.3%)	29 (96.7%)	
Male	11 (36.7%)	1 (3.3%)	
ASA Grade			0.5308
ASA I	25 (83.3%)	22 (73.3%)	
ASA II	5 (16.7%)	8 (26.7%)	
Mallampati Grade			0.0006
Grade I	12 (40.0%)	5 (16.7%)	
Grade II	10 (33.3%)	25 (83.3%)	
Grade III	5 (16.7%)	0 (0.0%)	
Grade IV	3 (10.0%)	0 (0.0%)	

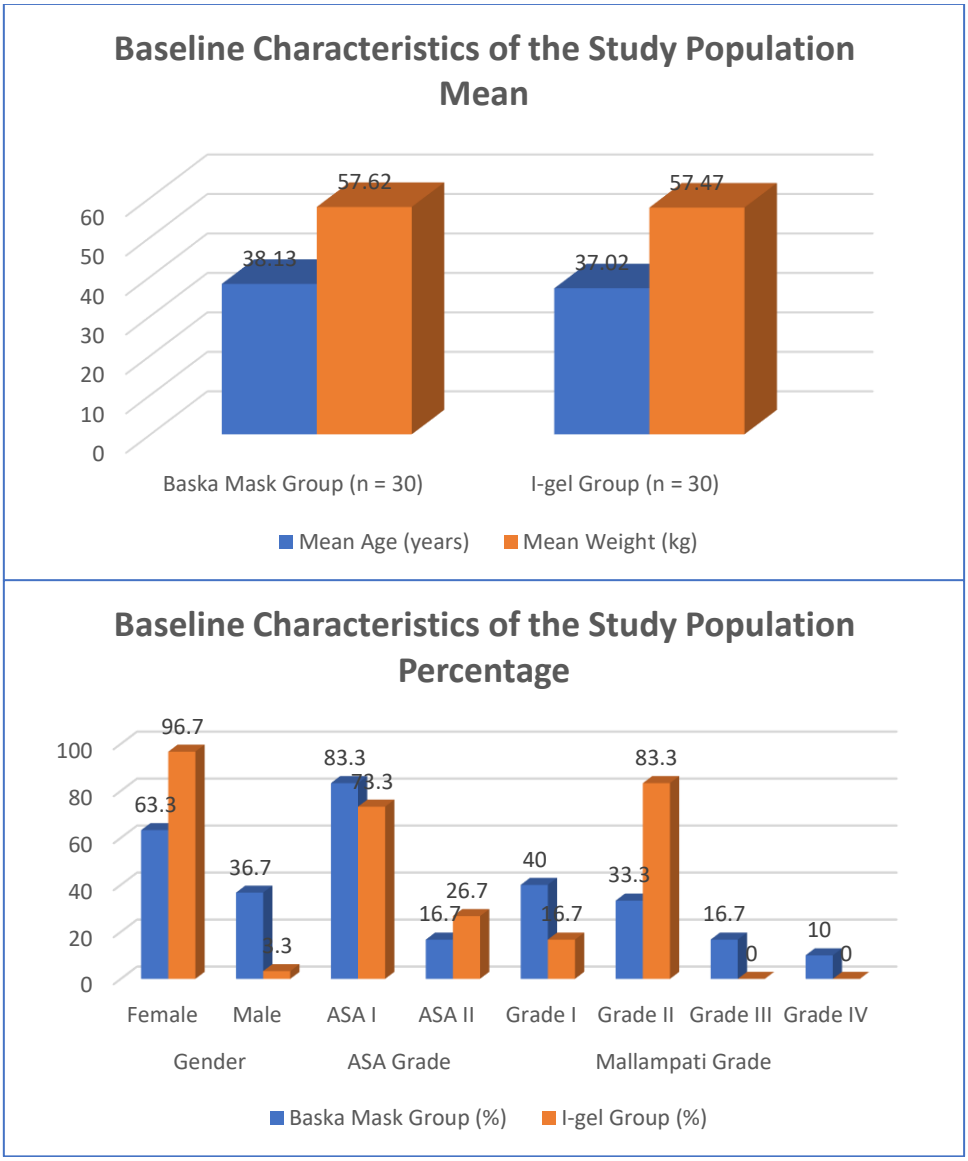

Figure 1 Baseline Characteristics of the Study Population

Table 2. Insertion Characteristics and Airway Seal Parameters

Parameter	Baska Mask Group (n = 30)	I-gel Group (n = 30)	p-value
Time of insertion (seconds), Mean ± SD	21.93 ± 8.05	18.67 ± 4.02	0.0531
Range	13–50	15–34	
Median (IQR)	20 (17–24)	18 (17–18)	
Number of attempts			1.0000
First attempt	26 (86.7%)	27 (90.0%)	
Second attempt	4 (13.3%)	3 (10.0%)	
Grade of insertion			0.78
Grade I	25 (83.3%)	26 (86.7%)	
Grade II	5 (16.7%)	4 (13.3%)	
Oropharyngeal leak pressure, Mean ± SD	33.47 ± 3.05	28.57 ± 1.59	<0.0001
Range	27–40	24–32	
Median (IQR)	34 (31–36)	28 (28–29)	

Table 3. Hemodynamic and Oxygenation Parameters

Parameter	Baska Mask Group Mean ± SD	I-gel Group Mean ± SD	p-value
Pulse rate (/min)			
Pre-induction	89.80 ± 3.60	91.30 ± 8.42	0.1164
Immediately after insertion	86.20 ± 10.12	94.07 ± 9.92	<0.0001
3 min post-insertion	96.40 ± 4.48	87.17 ± 11.85	<0.0001
5 min post-insertion	91.20 ± 6.76	87.77 ± 11.30	0.1164
Systolic BP (mmHg)			
Pre-induction	121.40 ± 9.87	125.57 ± 10.59	0.0010
Immediately after insertion	126.67 ± 9.70	126.57 ± 11.84	0.4385
3 min post-insertion	120.53 ± 12.97	118.47 ± 10.92	0.4135
5 min post-insertion	119.00 ± 7.05	121.27 ± 7.42	0.1565
Diastolic BP (mmHg)			
Pre-induction	76.70 ± 8.51	77.77 ± 8.70	0.9597
Immediately after insertion	76.40 ± 12.52	78.57 ± 9.55	0.9200
3 min post-insertion	74.60 ± 9.49	77.07 ± 8.35	0.0345
5 min post-insertion	72.63 ± 4.92	77.20 ± 6.41	0.0013
MAP (mmHg)			
Pre-induction	91.00 ± 8.09	94.87 ± 9.09	0.0225
Immediately after insertion	95.40 ± 9.36	94.50 ± 8.56	0.5152
3 min post-insertion	91.60 ± 8.93	89.20 ± 8.53	0.4318
5 min post-insertion	90.60 ± 0.81	90.13 ± 7.36	0.3298
SpO_2 (%)			
Pre-induction	99.60 ± 0.50	99.53 ± 0.51	0.0402
Immediately after insertion	99.60 ± 0.50	99.37 ± 0.49	0.0063
3 min post-insertion	99.80 ± 0.41	99.37 ± 0.49	0.0136
5 min post-insertion	100.00 ± 0.00	99.33 ± 0.48	<0.0001

Table 4. Postoperative Complications

Complication	Baska Mask Group (n = 30)	I-gel Group (n = 30)	p-value
Trauma	6 (20.0%)	0 (0.0%)	-
Blood on device	0 (0.0%)	2 (6.7%)	0.472
Sore throat	6 (20.0%)	4 (13.3%)	0.729
Nausea	0 (0.0%)	1 (3.3%)	-
Pharyngeal pain	6 (20.0%)	0 (0.0%)	-

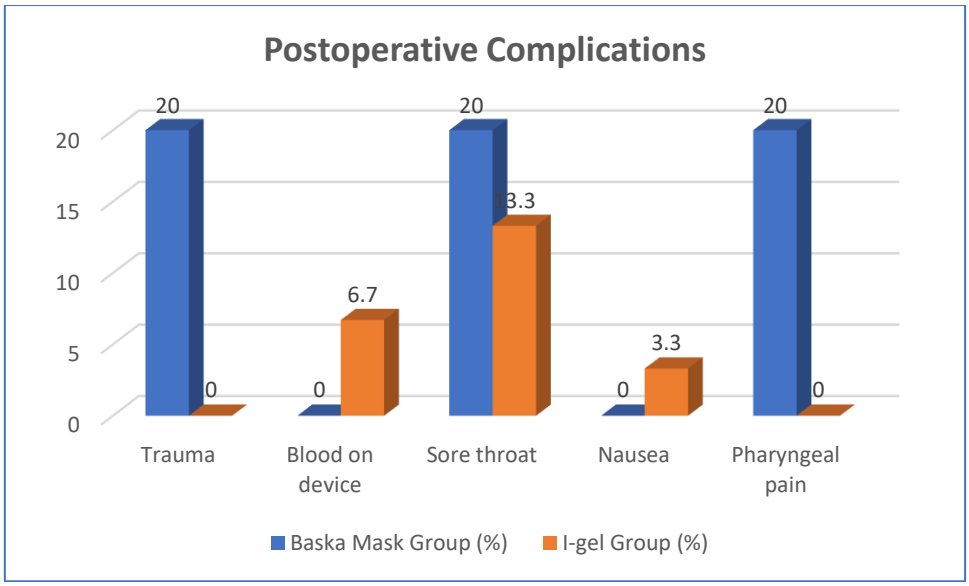

Figure 2 Postoperative Complications

DISCUSSION

The present prospective randomized comparative study evaluated the performance of the Baska Mask and I-gel in adult patients undergoing elective surgery under general anaesthesia. Both supraglottic airway devices provided effective airway management; however, differences were observed in airway sealing efficacy, insertion characteristics, hemodynamic responses, and postoperative complications.Baseline demographic characteristics were comparable between the groups. The mean age was 38.13 ± 12.28 years in the Baska Mask group and 37.02 ± 11.52 years in the I-gel group ($p = 0.5538$), while mean body weight was similar (57.62 ± 6.76 kg vs. 57.47 ± 6.12 kg; $p = 0.975$). Comparable demographic profiles have also been reported by Sridharan et al. [14] and Singh et al. [15], ensuring minimal confounding effects on airway outcomes.Although gender distribution differed significantly between groups ($p = 0.0037$), previous studies conducted predominantly in female populations by Garg et al. [16] and Jain et al. [17] similarly demonstrated superior airway sealing performance of the Baska Mask. Mallampati grade distribution was also significantly different ($p = 0.0006$), with more difficult airways present in the Baska Mask group. Despite this, successful insertion was achieved in most patients, supporting the findings of Shanmugavelu et al. [18], who reported high success rates even in patients with higher Mallampati grades.The mean insertion time was slightly longer with the Baska Mask (21.93 ± 8.05 s) than with the I-gel (18.67 ± 4.02 s), although the difference was not statistically significant ($p = 0.0531$). Similar findings were reported by Shanmugavelu et al. [18] and Kara et al. [19], who observed faster insertion with the I-gel. The longer insertion time of the Baska Mask may be attributed to its unique cuff design, though the difference was clinically negligible.First-attempt insertion success rates were comparable (86.7% vs. 90.0%; $p = 1.0000$), consistent with observations by Sachidananda et al. [20] and Jain et al. [21], who reported similar ease of insertion for both devices.A major finding of our study was the significantly higher oropharyngeal leak pressure (OLP) with the Baska Mask (33.47 ± 3.05 mmHg) compared with the I-gel (28.57 ± 1.59 mmHg; $p < 0.0001$). Similar superiority of the Baska Mask has been reported by Sachidananda et al. [20], Shanmugavelu et al. [18], Garg et al. [16], and Jain et al. [21]. The self-energizing membranous cuff of the Baska Mask likely contributes to its superior airway seal, making it particularly advantageous during positive-pressure ventilation and laparoscopic procedures.Both devices maintained satisfactory hemodynamic stability. Pulse rate differences observed immediately and at 3 minutes after insertion were transient, while blood pressure changes remained clinically acceptable. Similar findings have been reported by Gupta et al. [22], Sridharan et al. [14], Sachidananda et al. [20], and Sezen et al. [23], who concluded that both devices cause minimal cardiovascular stimulation.

Oxygen saturation remained excellent in both groups, although marginally higher values were observed with the Baska Mask. Similar observations by Sridharan et al. [14] and Deepak et al. [24] suggest that improved airway sealing may enhance ventilation efficiency.Postoperative complications were generally mild. Trauma and pharyngeal pain were more frequent with the Baska Mask, whereas blood staining occurred only with the I-gel. Jain et al. [21] also reported slightly greater throat discomfort with the Baska Mask. However, a meta-analysis by Tripathi et al. [25] found no significant difference in overall complication rates between the two devices.

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CONCLUSION

Both the Baska Mask and I-gel proved to be effective and reliable supraglottic airway devices for airway management in patients undergoing elective surgeries under general anaesthesia. The Baska Mask provided significantly higher oropharyngeal leak pressure, indicating a superior airway seal and potentially better suitability for positive-pressure ventilation and laparoscopic procedures. Although the I-gel demonstrated a trend toward faster insertion and slightly fewer airway-related complications, the overall insertion success rates and hemodynamic stability were comparable between the

two devices. Therefore, both devices can be safely used in routine anaesthetic practice, with the Baska Mask offering the advantage of improved airway sealing performance.

LIMITATIONS

The present study was conducted at a single tertiary care center with a relatively small sample size, which may limit the generalizability of the findings. There was a significant imbalance in gender and Mallampati grade distribution between the study groups despite randomization, which could have influenced some outcome measures. Fiberoptic assessment of device positioning and postoperative follow-up were limited to the immediate perioperative period, preventing evaluation of long-term airway-related complications. Furthermore, the study included only ASA I–II patients undergoing elective surgeries, and therefore the results may not be applicable to high-risk patients or emergency surgical settings.

BIBLIOGRAPHY

1. Sahaya A, Singh R, Baser N, Sharda S. Comparison of I-gel and laryngeal mask airway classic in terms of ease of insertion and hemodynamic response: A randomized observational study. Int J Res Med Sci. 2023;11:2567-72.
2. Cork RC, Depa RM, Standen JR. Prospective comparison of use of the laryngeal mask and endotracheal tube for ambulatory surgery. Anesth Analg. 1994;79:719–27.
3. Higgins PP, Chung F, Mezei G. Postoperative sore throat after ambulatory surgery. Br J Anaesth. 2002;88:582–4.
4. Bhatt SB, Kendall AP, Lin ES, Oh TE. Resistance and additional inspiratory work imposed by the laryngeal mask airway. A comparison with tracheal tubes. Anaesthesia. 1992;47:343–7.
5. Michálek P, Miller DM. Airway management evolution - in a search for an ideal extraglottic airway device. Prague Med Rep. 2014;115:87-103.
6. Dyer RA, Llewellyn RL, James MF. Total i.v anaesthesia with propofol and the laryngeal mask for orthopaedic surgery. Br J Anaesth. 1995;74:123–8.
7. Polat R, Aydin GB. Comparison of the I-gel™ and the Laryngeal Mask Airway Classic™ in terms of clinical performance. Braz J Anesthesiol. 2015;65:343-8.
8. Levitan RM, Kinkle WC. Initial anatomic investigation of I-gel airway: A novel supraglottic airway without inflatable cuff. Anaesthesia. 2005;60:1022-6.
9. Me J. Effects of laryngeal mask airway I-gel general anaesthesia on the stress response during interventional surgery. Chin J Mod Drug Appl. 2014;63:279-90.
10. Alexiev V, Salim A, Kevin LG, Laffey JG. An observational study of the Baska mask®: a novel supraglottic airway. Anaesthesia. 2012;67:640-5.
11. Anil Kumar MR, Shetty SM, Marulasidappa M, Parmar P, Vyshnavi S. Baska mask®—A third-generation supraglottic airway device in clinical practice: A prospective observational study. Indian J Clin Anaesth. 2018;5:576-81.
12. Van Zundert T, Gatt S. The Baska Mask®: a new concept in self-sealing membrane cuff extraglottic airway devices. J Obstet Anaesth Crit Care. 2012;2:23–7.
13. Brain AI. The laryngeal mask – a new concept in airway management. Br J Anaesth. 1983;55:801-5.
14. Sridharan NK, Sutrave SK. A Prospective Randomised Comparative Study of Baska Mask and I-gel for Airway Management in Elective Surgeries: Focus on Airway Sealing Pressure, Insertion Time, and Haemodynamic Response. Asian Journal of Medicine and Health. 2024 5;22:107–19.
15. Singh A, Bhalotra AR, Anand R. A comparative evaluation of ProSeal laryngeal mask airway, I-gel and Supreme laryngeal mask airway in adult patients undergoing elective surgery: A randomised trial. Indian J Anaesth. 2018 Nov;62:858-64.
16. Garg A, Lamba N, Chandra NSA, Singhal R, Chaudhary V. Supraglottic airway devices in short gynecological procedures: A randomized, clinical study comparing the Baska® mask and I-gel® device. J Family Med Prim Care. 2019;8:1134–6.
17. Jain P, Sharma U, Modi YC, Morwal SK. Comparison of Baska Mask Versus I-gel in Short Gynaecological Laparoscopic Surgeries Under General Anaesthesia in Adult Female: A Randomized Interventional Study. Archives of Anesthesiology and Critical Care [Internet][cited 2023 Nov 25];9:310–4.
18. Shanmugavelu G, Kanagarajan T. Comparing the functional analysis of I-gel with Baska mask in laparascopic surgeries: an observational study. International Journal of Research in Medical Sciences. 2018;6:1440-5.
19. Kara D, Sarikas CM. Comparison of the Baska and I-gel supraglottic airway devices: a randomized controlled study. Annals of Saudi Medicine. 2019;39:302–8.
20. Sachidananda R, Shaikh SI, Mitragotri MV, Joshi V, Ladhad DA, Mallappa M, et al. Comparison between the Baska Mask® and I-gel for Minor Surgical Procedures Under General Anaesthesia. Turk J Anaesthesiol Reanim . 2019;47:24–30.
21. Jain P, Sharma U, Modi YC, Morwal SK. Comparison of Baska Mask Versus I-gel in Short Gynaecological Laparoscopic Surgeries Under General Anaesthesia in Adult Female: A Randomized Interventional Study. Archives of Anesthesiology and Critical Care [Internet][cited 2023 Nov 25];9:310–4.
22. Gupta A, Rastogi K, Khan AL, Pathak A, Shahid R. Comparison of Baska mask airway and I-gel for ease of insertion and hemodynamic stability in patients undergoing general anaesthesia. Anaesthesia, Pain & Intensive Care. 2025;29:70–6.

23. Sezen Ö. A comparison of two supraglottic airway devices in general anaesthesia: baska mask® vs. I-gel®. Medical Science and Discovery. 2019;6:333–9.
24. Deepak Phalgune, Cherian L, Janhavi Thatte, Shripad Mahadik. Comparative evaluation of the clinical performance of supraglottic airways- Supreme laryngeal mask airway, I gel and baska mask. Indian Journal of Clinical Anaesthesia. 2023 15;10:47–52.
25. Tripathi R, Kumar R. Comparative Efficacy and Safety of Baska Mask and I-gel in Short Surgical Procedures:. Bali Journal of Anesthesiology. 2025;9:28–34.