Comparison of the Baska mask, I-gel laryngeal mask airway and Classical laryngeal mask airway for effectiveness and complications in non-paralysed anaesthetised adult patients undergoing ambulatory surgery.

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Background: In this prospective randomised study, we compared the Baska mask with I-gel Laryngeal Mask Airway (LMA) and Classical LMA in patients undergoing general anesthesia for elective varicose vein operation.

Methods: After approval of local ethics committee and patient consent, 135 patients aged 18–64years of ASA group I-II were randomised into three groups as providing airway via;

Baska Mask (Group I),
I-gel LMA (Group II),
Classic LMA (Group III).

Same anaesthesia protocol was used (Induction; 1.5 µg kg−1 IV fentanyl and 1–2mg kg−1 IV propofol, no muscle relaxant, maintanance;1%–2%sevoflurane and50%–50% mixture ofO2/air, 5 L min−1).
The allocated LMA was inserted by the same anaesthetist when BIS was between 40%and 60%.
Data recorded by unblinded observer as
-regarding number of attempts,
-ease of insertion (first time success rate, reposition, second - attemps success rate
-insertion time,
-haemodynamic and respiratory parameters,
-amount of leakage,
-oropharyngeal and systemic complications.
(Number Cruncher Statistical System 2007, One-way anova test, Tukey HSD, pearson chi-square test and Fisher-freeman-Halton tests, p<0.05 andp<0.01 --> statistically significant).

Results and Discussion:
The study conducted 128 patient (49.2 % males, 50.8 % females and mean age of 41.34±11.28).
-First time success rates of groups were 50, 81.8, 70.5 respectively. First time success rate of the group II was significantly higher (p=0.038, p<0.05). Reposition rate and second attemps success rate were insignificantly lower in group II. So ease of insertion rate of the group II was higher than other groups (p=0.038, p<0.05)(Table 1).
-Mean insertion time was significantly longer in the Group I as compared to Group II (25.73±6.94 vs. 21.98±4.88, p=0.018; p<0.05).
-Amount of leakage in the Group II was significantly lower than other groups (p<0.01) (Figure 1).
-All other parameters showed insignificant differences between the three divices.

Conclusion: Baska Mask, I-gel LMA and Classical LMA can be used in airway establishment during short surgeries but we suggest that; I-gel better than other two LMA as provides better seal with lower leakage, has short placement time and high ease of insertion rate.
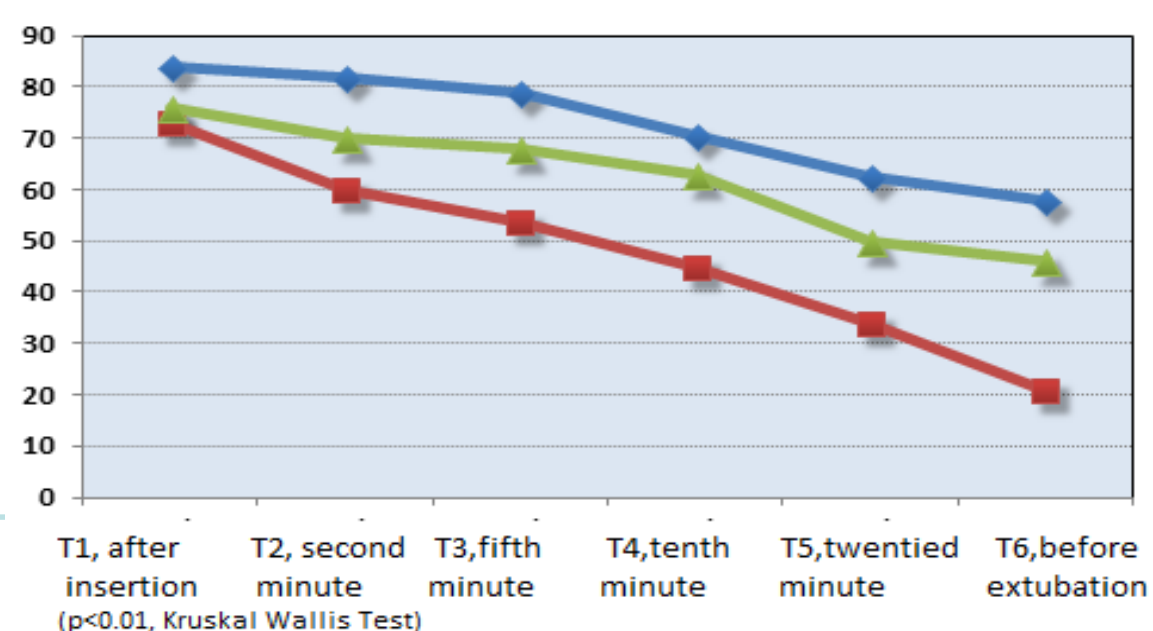
Figure 1; Amount of leakage in ml.

Table 1; main data according to groups		Group I (Baska LMA , n= 40) n (%)	Group II (I-gel , n= 44) n (%)	Group III (Classic LMA , n= 44) n(%)	p
Ease of insertion rate (p=0.038)	First time success rate	20 (50.0)	36 (81.8)	31 (70.5)	0,038*
	Reposition rate	11 (27.5)	5 (11.4)	8 (18.2)	0.155*
	Second attemp success rate	69 (22.5)	3 (6.8)	5 (11.4)	0.096*
Mean insertion time		25,73±6,94	21,98±4,88	23,41±6,09	0,0180**

** One-way Anova Test, *Pearson Chi-Square Test, P< 0.05