

Comparison of New Generation Baska Mask® with I-Gel® and Classical Laryngeal Mask in Outpatient Urological Interventions

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Background

In this study, we evaluated and compared the performance of the Baska Mask® (PTY Ltd,Australia), I-Gel®(Intersurgical Ltd,UK) and Classic laryngeal maske airway (cLMA) for use in anesthesia in adult patients undergoing a variety of outpatient urologic interventions.

Methods

One hundred fifty patients with ASA I-III physical status were enrolled for elective urological interventions without neuromuscular blocking. The patients were divided into Baska Mask, I-Gel, and classic LMA groups, each with 50 patients. We evaluated the "first attempt" success rates, insertion time, ventilation time, airway dynamics-complications and hemodynamic variables.

Results

There were no significant differences among three groups regarding demographic data, airway dynamics, complications and hemodynamic variables. The "first attempt" success rate were 98%, 92%, 88% classic LMA, I-Gel, Baska Mask, respectively. Insertion and ventilation

times were different between groups($p < 0,001$ for each).Both insertion and ventilation times of classical LMA were found to be shorter than others (insertion times 5.78 ± 1.72 sec & ventilation times 11.72 ± 4.72 sec).The insertion and ventilation times in the I-Gel group were 7.28 ± 2.66 and 15.38 ± 6.7 sec.The longest insertion and ventilation times were in Baska Mask with 12.04 ± 6.25 and 21.26 ± 8.53 sec.When considering the additional maneuvering requirements during placement, 2% (49/1), 8% (46/4), 20% (40/10) were found for cLMA, I-Gel and Baska Mask, respectively.

Conclusions

As a conclusion, when cLMA, I-Gel and Baska Mask are compared regarding their placement and ventilating durations, first attempt success rates and required additional maneuvers, cLMA and I-Gel are superior to Baska Mask in urological ambulatory surgical cases. In terms of complications, hemodynamic changes and adequate ventilation three airway devices were similar.

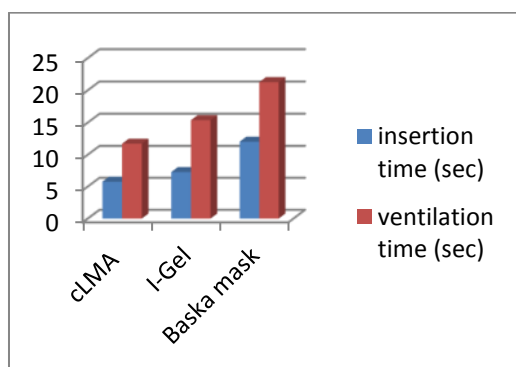


Figure 1: Insertion times and ventilation times of classical LMA, I-Gel and Baska Mask (insertion time cLMA-I-Gel $p = 0,001$; cLMA-Bska $p < 0,001$; I-Gel-Bska $p < 0,001$), (ventilation time cLMA-I-Gel $p < 0,001$; cLMA-Bska $p < 0,001$; I-Gel-Bska $p < 0,001$)

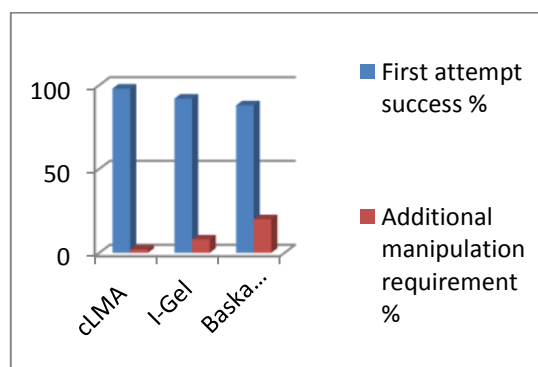


Figure 2: First attemp success $p = 0,155$; additional manipulation requirement cLMA-I-Gel $p = 0,169$; cLMA-Bska $p = 0,004$; I-Gel-Bska $p = 0,084$