

Pillow height for i-gel[®] insertion: a randomized clinical trial

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To the Editor:

We hypothesized that i-gel[®] (Intersurgical, UK) insertion efficacy could be improved by use of a high pillow [1]. To test this hypothesis, we performed a randomized clinical study to examine whether a high pillow improves the efficacy of i-gel[®] insertion by measuring sealing pressure.

This study was approved by the research ethics committee of Osaka Medical College and registered with the UMIN Clinical Trials Registry (UMIN000017490). After obtaining written informed consent, 70 patients (age range 20–85 years) who were scheduled to undergo general anesthesia in a supine position between May and July 2015 were randomly assigned to one of the following two groups by an envelope method—low-pillow (4 cm) group (LP group; 35 patients), and high-pillow (12 cm) group (HP group; 35 patients). Anesthesia was induced with propofol and remifentanyl, and i-gel[®] insertion was performed by novice doctors with <2 months of experience. A size 3, 4, or 5 i-gel[®] was selected based on the patient's body weight according to the manufacturer's guidelines. The chi-squared test or Mann–Whitney *U* test was performed for analysis. Data are presented as mean ± standard deviation and $P < 0.05$ was considered statistically significant.

Sealing pressure at the time of the first insertion did not differ significantly between the two groups (HP group: 24.6 ± 9.5 cmH₂O; LP group: 22.8 ± 11.9 cmH₂O, $P = 0.27$). The number of patients with a sealing pressure ≥ 15 cmH₂O also showed no significant difference (HP group: 28 patients; LP group: 27 patients, $P = 0.75$). The efficacy of i-gel[®] insertion by novice doctors did not differ between LP and HP groups. Our results suggest that novice doctors could insert the i-gel[®] effectively, regardless of pillow height.

Compliance with ethical standards

Conflict of interest None.

Reference

1. Matsuo Y, Murashima K, Sata T. Incidence of insertion difficulty using Proseal LMA and the efficacy of recommended insertion maneuvers. *Masui*. 2007;56:1168–73.

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