AIRTRAQ VIDEOLARYNGOSCOPE INTUBATION VS. FIBERSCOPE INTUBATION THROUGH THE I-GEL SUPRAGLOTTIC DEVICE IN SIMULATED CERVICAL IN-LINE STABILIZATION.

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Background and Goal of Study:

- Orotracheal intubation in patients with limited cervical spine mobility may be difficult if performed with direct laryngoscopy¹. These patients may benefit from techniques with less or no movement of the neck². Our aim was to compare the efficacy and safety of using the Airtraq® videolaryngoscope and the I-gel® supraglottic device for oro-tracheal intubation in patients with simulated cervical fixation.

Materials and Methods:

- 60 patients without difficult airway predictors in whom oro-tracheal intubation was necessary were recruited and were randomly divided into 2 groups of 30.
- Group A was intubated using the Airtraq® laryngoscope and group G was intubated using a fiberoptic bronchoscope through the I-gel®. After general anesthesia was induced, simulated cervical stabilization by means of a strip tape was established in neutral position.
- Group A: patients were intubated using the Airtraq® after two minutes of manual ventilation with 100% O₂
- Group G: I-gel® device was inserted during the two minutes of manual ventilation after the anesthetic induction at anesthesiologist discretion. Then, oro-tracheal intubation was performed with the help of a flexible fiberoptic bronchoscope.
- Intubation success rate, time to intubation (Tti), number of intubation attempts and adverse events were recorded and compared.

Results and discussion:

- All patients were successfully intubated.
- Tti was $28,5 \pm 16,3$ s for group A, and $25,2 \pm 11,5$ s for group G (p 0.543). In one patient of group A the Airtraq® could not be introduced into the patient's mouth because it collided with the chest wall and he was intubated using the I-gel®.
- No adverse events were recorded.

Conclusion

- Both Airtraq® and fiberoptic guided intubation through the I-gel® are safe and effective techniques to achieve intubation in patients with cervical spine stabilization and reduction of neck mobility.
- Fiberoptic intubation through the I-gel® seems to be easier to perform than Airtraq intubation in simulated cervical stabilization

References:

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- Malik, M. A., Maharaj, C. H., Harte, B. H. & Laffey, J. G. Comparison of Macintosh, Truview EVO2, Glidescope, and Airwayscope laryngoscope use in patients with cervical spine immobilization. *Br. J. Anaesth.* **101**, 723–30 (2008).