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The use of the Airtraq optical laryngoscope for routine tracheal intubation in high-risk cardiac surgical patients

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Background: The Airtraq optical laryngoscope is a novel disposable device facilitating tracheal intubation in routine and difficult airway patients. No data investigating routine tracheal intubation using the Airtraq in patients at a high cardiac risk are available at present. Purpose of this study was to investigate the feasibility and hemodynamic implications of tracheal intubation with the Airtraq optical laryngoscope, in high-risk cardio-surgical patients.

Methods: 123 consecutive ASA III patients undergoing elective coronary artery bypass grafting were routinely intubated with the Airtraq. Induction of anesthesia was standardized according to our institutional protocol. All tracheal intubations were performed by six anesthetists trained in the use of the Airtraq prior.

Results: Overall success rate was 100% . All but five patients trachea could be intubated in the first attempt. 5 patients were intubated in a 2nd or 3rd attempt. Mean intubation time was 24.3s (range 16-128 s). Heart rate, arterial blood pressure and SpO₂ were not significantly altered. Minor complications were observed in 6 patients (4,8%), i.e. two lesions of the lips and four minor superficial mucosal bleedings.

Intubation duration and number of attempts were independent from BMI and Mallampati score.

Conclusion:

In conclusion our results demonstrate that routine tracheal intubation with Airtraq is feasible, fast and save in high-risk cardiac patients. The use of the Airtraq allowed maintaining a stable hemodynamic situation