Original Paper

Comparison of remifentanil - propofol with remifentanil- thiopental for tracheal intubation without muscle relaxant

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Abstract

Background and Objective: In particular medical situation administration of muscle relaxants following intravenous anesthetics for tracheal intubation may be unnecessary or hazardous. The aim of this study was the comparison of laryngoscopy and intubation conditions after induction of anesthesia with propofol or thiopental in the absence of muscle relaxants.

Materials and Methods: In a randomized, and double – blind clinical trails, 42 ASA class 1 and 2 patients assigned randomly to propofol 2mg/kg group or thiopental 5mg/kg group. All patients received lidocaine 1.5mg/kg and remifentanil 2.5 µg/kg 30 second before anesthetics administration. Ninety second after administration of the hypnotic agent's, laryngoscopy and intubation were attempted. Intubating conditions were assessed as excellent, good, suitable or poor on the basis of mask ventilation, jaw relaxation, vocal cords position and patient's response to intubations and intotracheal tube cuff inflation. The mean arterial pressure and heart rate were measured before and after anesthetic administration, and immediately, 2 and 5 minutes after intubations.

Results: 40% of patients in thiopental group and 80% of patients in propofol group showed either excellent or good conditions for laryngoscopy and tracheal intubation (P<0.05). Mean arterial pressure and heart rate were decreased more significantly in propofol group in respect to thiopental group (P<0.05).

Conclusion: This investigation showed that propofol in combination with remifentanil is better than thiopental for tracheal intubation without muscle relaxants. However, it induces more homodynamic changes.

Keywords: Remifentanil, Propofol, Sodium Thiopental, laryngoscopy, Intubation conditions

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