

## News &amp; Comments

## Remifentanil Provides Successful and Satisfactory Airway Management

*Andrea Ricky*

The free peripheral nerves of the mucosa and inner layer of the skin are typically the targets of topical aesthetic drugs, which results in a temporary lack of sensation close to the application site. Patients who are afraid of needle injection and skin complications also favour topical anaesthesia. Because a briefed airway evaluation takes longer and is impractical in an emergency, awake intubation can be successfully performed during a difficult airway. AFOI should be considered, nevertheless, if the necessary tools and knowledge are on hand. With this alteration, it will be simpler to comfortably spray the lidocaine/prilocaine through the vocal cord. The objective of the study is to evaluate the efficacy of remifentanil and propofol both by using a modified topical anaesthesia method.

The study was carried out at the Department of Anaesthesiology, The General Hospital of Central Theatre Command of the People's Liberation Army. 936 patients, both male and female, who were admitted to the hospital were chosen for this inquiry. Group-I (propofol), Group-II (remifentanil), and Group-III were the three groups formed from the 936 patients in a ratio of 1:1:1 (312:312:312). (Both propofol and remifentanil). For Group A, 1.2 mg of propofol and 1 mcg of remifentanil were synthesized for intravenous administration. For Group B and Group C, 0.5 mg/0.6 mcg of propofol-remifentanil were prepared based on their BMI. Patients in Group-I received 1.2 mg of propofol dissolved in 22 mL of 1% saline using a 25 mL syringe. Patients in Group II received an initial bolus injection of 1 mcg remifentanil combined with 1 mcg. While Group-III patients received either an initial bolus dose of 0.5 mg/0.6 mcg of propofol-remifentanil. Statistical analysis was carried out using GraphPad 6.01 (Prism, LA, California, USA).

Based on age, sex, height, weight, and BMI, there was no statistically significant difference in the baseline characteristics of the 936 patients who were all enrolled. In comparison to 8 patients (2.56%) of Group-II and 11 patients (3.53%) of Group-III, 14 patients (4.49%) of Group-I had a severe airway blockage score of 3 on a 3-point scale. While only 6 (1.92%) of Group-II patients and 9 (2.88%) of Group-III patients experienced transitory hypoxia, respectively, 10 patients (3.21%) in Group-I experienced the condition. Using a modified topical anaesthesia technique, the study examined the effects of propofol and remifentanil. The findings show that, in comparison to propofol and a propofol-remifentanil mixture, the use of remifentanil led to a significantly shorter recovery time with efficient anaesthetic induction. Topical anaesthesia has the benefit of acting on the nerves' periphery, which lessens the patient's experience of pain. Additionally, the modified procedure used in this study



enables patients with ENT problems and comorbidities to avoid injections like Trans-Cricothyroid Membrane injections and open airway injections. In this observational study, patients in Group-II who received remifentanil had a better intubation score when utilizing the modified protocol than patients in Group-I who received propofol or a propofol-remifentanil combo (Group-II). In comparison to the other two groups, the patients in Group II who received remifentanil received an overall favourable score on the postoperative evaluation.

This exploratory study showed that the combination of modified topical anaesthesia and remifentanil infusion produced successful and satisfactory airway management and intubating settings. For awake fiberoptic intubation in the challenging airway, remifentanil seems to be a secure form of sedation.

#### **JOURNAL REFERENCE**

Jiang, J., G. Yin, H. Wang and G. Gan, 2022. Observational study on the effect of propofol and remifentanil using modified topical anaesthesia method. *Int. J. Pharmacol.*, 18: 877-882.

#### **KEYWORDS**

Awake fibre optic, awake intubation, remifentanil, propofol, tracheal intubation, airway management, topical anaesthesia

