Efficacy of Postoperative Analgesia of Local Ketamine Wound Instillation Following Total Thyroidectomy A Randomized, Double-blind, Controlled Clinical Trial

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Abstract:

Total thyroidectomy is recommended as a line of management of thyroid cancer in many cases. Our aim was to compare postoperative analgesic effect of local ketamine 1 mg/kg instilled in the wound to that of intramuscular (IM) ketamine and placebo after total thyroidectomy. Methods: A total of 90 patients aged 18 to 60 years, American Society of Anesthesiologists (ASA) class I to II, with a body weight of 50 to 90 kg, scheduled for total thyroidectomy were enrolled after ethics committee approval in this prospective, randomized, double-blind, controlled study and divided randomly into 3 groups to receive treatment after hemostasis. Group (I) received 1 mg/kg ketamine in a total volume of 10mL normal saline instilled in the wound. Group (II) received 1 mg/kg of IM ketamine. Group (III) received 10mL of normal saline instilled in the wound. Total amount of morphine consumption, first request of analgesia, and side effects were recorded. Visual analog scale at rest and movement and hemodynamics were assessed immediately, 1, 2, 4, 6, 12, and 24 hours postoperatively. Results: Total morphine consumption was reduced and first request of analgesia was delayed in group I compared with that in groups II and III, and in group II compared with that in group III (P=0.000). Visual analog scale at rest and movement were decreased immediately postoperatively in groups I and II in comparison with their values in group III; group II had higher sedation scores. Conclusions: Local wound ketamine instillation provided superior postoperative analgesia with lower incidence of side effects in comparison with IM ketamine and placebo following total thyroidectomy.

Keywords:

ketamine, instillation, postoperative pain, thyroidectomy

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