

Propofol-Fentanyl VS. Thiopental-Isonurane for Neurosurgical Anesthesia in Thai Patients:
Comparison of Hemodynamics, Recovery and Cost Effectiveness

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Sixty Thai patients, ASA class I-II, Glasgow coma score of 15 undergoing elective intracranial surgery were randomly assigned to 2 groups. In group I, 30 patients were induced with thiopental 3.5 mg/kg, intubation with succinylcholine 1.2 mg/kg and then maintained with 60% N₂O in O₂ isoflurane and vecuronium as a muscle relaxant. In group II, 30 patients received fentanyl 50 mg, propofol 1.0-2.5 mg/kg for induction and vecuronium 0.08 mg/kg for intubation then maintained with 60% N₂O in O₂, continuous infusion of propofol 2-12 mg/kg/hr and vecuronium infusion as a muscle relaxant. Controlled ventilation in both groups was set to maintain PET CO₂ in the range of 28-35 mmHg. Three patients (1 in group I and 2 in group II) were excluded from the study due to surgical problem. There was no statistical difference in age, sex, ASA status, weight and duration of anesthesia. Group II were more stable in systolic BP, diastolic BP and pulse rate than group I during induction and emergence from anesthesia. Glasgow coma scores in the recovery period were higher in group II than in group I at 5 and 15 minutes but not at 30 minutes. Mean recovery times (eye opening) was 14.03 ± 4.85 minutes in group I which is significantly different from 10 ± 5.17 minutes in group II. The cost of anesthesia in group II was 2 times of group I. In conclusion, although neurosurgical anesthesia for Thai patients with fentanyl-propofol technique produces more stable blood pressure, rapid recovery from anesthesia and a higher Glasgow coma score, but the cost of anesthesia is doubled. Furthermore, this technique is more difficult and needs more experience.