

AU: Fodale V; Tescione M; Roscitano C; Pino G; Amato A; Santamaria LB

TI: Effect of tramadol on Bispectral Index during intravenous anaesthesia with propofol and remifentanil.

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AB: The aim of this study was to investigate the effects of tramadol on the Bispectral Index (BIS) during total intravenous propofol-remifentanil anaesthesia. Forty-four adult ASA Physical status I-II patients, scheduled for elective general surgical procedures were included in a prospective observational randomized study. Doses for anaesthetics and opioids were adjusted to keep the BIS value at 50 +/- 5. After 20 minutes of stable anaesthesia, the subjects were randomly allocated to receive intravenous saline (control group) or tramadol 1.5 mg/kg (tramadol group). BIS values, mean arterial pressure, and heart rate were recorded every five minutes for 20 minutes. Mean BIS values after tramadol administration were not significantly different from those following saline, throughout the observation period ( $P > 0.05$ ). There were no patients in whom BIS values were more than 60 or who presented explicit recall of events under anaesthesia. There were no significant changes in mean arterial pressure, SpO<sub>2</sub>, or heart rate ( $P > 0.05$ ). The results indicate that the administration of tramadol during stable total intravenous anaesthesia with propofol-remifentanil does not affect BIS values. The clinical relevance is that tramadol can be safely administered pre- and intraoperatively as pre-emptive or preventive analgesia without modification of the depth of anaesthesia.