

# Doxapram and aminophylline on bispectral index under sevoflurane anaesthesia: a comparative study

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摘要

## Abstract

**BACKGROUND AND OBJECTIVE:** To evaluate and compare the effect of two clinically available central nervous system stimulants, namely doxapram and aminophylline on arousal from sevoflurane anaesthesia and bispectral index. **METHODS:** This randomized, double-blind, placebo-controlled, prospective study was conducted in 90 adult females, ASA I-II, scheduled for elective lower abdominal surgeries at Taipei Medical University Hospital. At 5 min before the completion of surgery, under sevoflurane anaesthesia, patients were divided into three groups to receive doxapram 1 mg kg<sup>-1</sup>, aminophylline 2 mg kg<sup>-1</sup> or saline placebo intravenous. Standard vital signs, end-tidal CO<sub>2</sub>, end-expiratory sevoflurane concentration, bispectral index and neuromuscular blockade were measured plus clinical parameters of recovery from general anaesthesia. **RESULTS:** Compared with the control group, patients receiving doxapram or aminophylline showed a similarly faster recovery from sevoflurane anaesthesia correlated with increase in bispectral index. **CONCLUSION:** Intravenous administration of doxapram 1 mg kg<sup>-1</sup> or aminophylline 2 mg kg<sup>-1</sup> hastened the early recovery from sevoflurane anaesthesia. The arousal effect of aminophylline and doxapram appears to be similar.