Tracheal Intubation Time Without Muscle Relaxant : Using Inspired Concentration of 4% and 8% Sevoflurane in Paediatric Patients

Phophichitra C, M.D.,* Saratunti P, M.D.,* Sirinan C, M.D.,* Ittichaikulthol W, M.D.,* Pausawasdi S, M.D.*
* Department of Anesthesiology, Faculty of Medicine, Ramathibodi hospital, Mahidol University, Bangkok 10400

Tracheal intubation can be done in paediatric patients after induction of anesthesia with sevoflurane without muscle relaxant. Forty ASA physical status I-II patients, aged 1-10 yr and weitht 10-25 kg scheduled for surgery under general anesthesia in Ramathibodi hospital were randomly assigned into two groups using 4% sevoflurane (group 1) and 8% sevoflurane (group 2). After gas induction, tracheal intubation was attempted without muscle relaxant. The intubation time (from loss of eyelash reflex to intubation) was predetermined by the up-and-down method (with 30 seconds as a step size) for each patient and started at 4 minutes for the first patient in each group.
Intubation time in 4% sevoflurane group (2.98 + 0.42 minutes) is significantly different from 8% sevoflurane group (1.34 + 0.49 minutes). There were no significant hemodynamic change and desaturation in both groups.
We conclude that tracheal intubation can be performed faster with 8% sevoflurane in N2O/O2 than 4% sevoflurane in N2O/O2 without adverse hemodynamic effect.