How Long to Intubate

Induction agents vary in their suppression of laryngeal reflexes and rapidity of onset. This British study randomized 120 ASA class I to III elective anesthesia patients to receive equipotent doses of propofol (2.5 mg/kg) or thiopental (5 mg/kg) intravenously after pretreatment with fentanyl (1 µg/kg). All patients were given rocuronium (0.6 mg/kg) immediately after the induction agent in a rapid sequence fashion. Intubation was attempted randomly at 30, 40, 50, 60, or 70 seconds by an operator blinded to the drug being used.

Intubating conditions were graded as satisfactory more often with propofol than thiopental (p<0.001). The effective times to satisfactory intubating conditions in 50% (ET50) and 90% (ET90) of patients were 34 and 61 seconds for propofol and 57 and 101 seconds for thiopental (p<0.0001).

Comment: Whether the induction agent really makes a difference in rapid sequence intubation (RSI) is controversial. For those of us who believe it does, this study is reaffirming, as it clearly demonstrates a difference in intubating conditions attributable to the induction agent. The authors conclude that propofol is preferred when rocuronium is used for RSI. The take-home message is that all things being equal, administration of a stronger induction agent and more of it will facilitate emergency endotracheal intubation, even when neuromuscular blockade is used.

— RM Walls

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