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A Dose of Ketamine Can Facilitate Preoxygenation Before Emergency Intubation

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In a new technique called “delayed sequence intubation,” ketamine facilitated preoxygenation in patients with altered mental status.

Patients with altered mental status may not be able to undergo preoxygenation, which is required for optimal rapid sequence intubation. In a prospective observational study of 62 such patients, investigators evaluated use of ketamine to induce a dissociative state without respiratory suppression prior to paralysis, in a process the authors named “delayed sequence intubation.”

Patients received 1 mg/kg of ketamine, with additional doses of 0.5 mg/kg as needed to induce a dissociative state. Preoxygenation was then achieved by non-rebreather mask or by noninvasive positive pressure ventilation. Mean oxygen saturation increased from 90% before ketamine administration to 99% after. No complications were observed.

Comment: Ketamine's ability to induce anesthesia without causing respiratory suppression makes it a unique and powerful tool. This convenience sample study suggests that administering a dose of ketamine before intubating a patient who is unable to cooperate with preoxygenation may be a safe and effective option. Determining whether the technique is superior, or even equal, to standard rapid sequence intubation in these patients will require a randomized trial.

Citation(s):

Weingart SD et al. Delayed sequence intubation: A prospective observational study. *Ann Emerg Med* 2014 Oct 22; [e-pub ahead of print].

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