Prehospital Use of Ketamine for Agitated Patients?

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Although most patients were adequately sedated within 3 minutes, a few required ventilatory support.

Consensus is lacking regarding an optimal medication regimen to treat agitated and violent patients in the prehospital setting. Ketamine's rapid onset, short duration of action, and sedative properties may make it uniquely suited for this indication. An emergency medical service in Florida instituted a protocol to treat violent and agitated patients with 4 mg/kg of intramuscular ketamine and 2.0 or 2.5 mg of parenteral midazolam to prevent emergence reactions. To evaluate the safety and effectiveness of this regimen, researchers retrospectively reviewed prehospital records between 2011 and 2014.

Of 52 patients treated per protocol, 50 achieved adequate sedation within roughly 2 minutes and remained sedated until arrival at the emergency department. Only 26 patients received intramuscular or intravenous midazolam. Of these, 3 patients required ventilatory support: 2 were intubated and 1 received bag-mask ventilation. No patient developed an emergence reaction in the prehospital setting.

Comment: This retrospective observational study suggests that ketamine with prophylactic midazolam is not safe and effective for treatment of violent or agitated patients in the prehospital setting. The 6% incidence of respiratory depression requiring ventilatory support is not insignificant and may have been due to the concomitant use of midazolam. More studies are needed before this practice can be safely adopted by other prehospital systems.

Citation(s):

(http://dx.doi.org/10.5811/westjem.2014.9.23229)

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