

Ketamine found more effective for treating highly-agitated patients during transport to hospital

May 23 2016

Scientists have shown that ketamine is far more effective than the more commonly used haloperidol for treating highly-agitated patients prior to hospitalisation. Patients were sedated in five minutes on average when treated with ketamine – 12 minutes faster than the average sedation time using haloperidol. The increased efficacy in sedation does come with a trade-off; the rate of complications and need for intubation both increase markedly for patients treated with ketamine.

These findings, publishing in the journal *Clinical Toxicology*, are the result of research performed over two six-month periods by clinicians based in Minneapolis. During these time periods, paramedics trained to evaluate a patient's mental status against the Altered Medical Status Scale (AMSS) recorded the findings from 146 [patients](#), 64 who were administered ketamine and 82 who were given haloperidol. Their findings indicated that ketamine is a more effective sedative, and whilst there is a trade-off in terms of complications, it warrants further study.

Paramedics often find that patients they are about to treat can become confused, agitated or combative prior to being taken to the hospital. Often this can put both the patient and paramedic at risk, and so the patient will be sedated during their trip to the hospital in an ambulance. At present, there is some debate on the best drugs and doses for this therapy.

The AMSS rates a patient's mental status on a scale ranging from +4 (combative, very violent, or out of control), through 0 (normal response), to -4 (does not respond to mild prodding or shaking). Patients judged to be agitated were administered with either 5 mg/kg of ketamine, or 10 mg of haloperidol and timed until they returned to a state of less than +1 on the scale. Pregnant women, people under 18, and severely agitated patients (+4 on the scale) were excluded from the study.

The researchers found that the median time for a patient to be sedated using ketamine was 5 minutes, compared to 17 minutes for patients treated with haloperidol. However, the researchers also noted a marked increase in complications; 49 % for the group treated with ketamine, compared to 5 % for the group treated with haloperidol. Furthermore, 39 % of the [ketamine](#) group required intubation compared to 4 % of the group treated with haloperidol.

The paper recognises that the study is a preliminary finding, and that there were potential confounders such as the study being neither randomized or blind. However the researchers believe that the findings warrant further study of the drugs used to sedate patients in the pre-hospital environment.

More information: Jon B. Cole et al. A prospective study of ketamine versus haloperidol for severe prehospital agitation, *Clinical Toxicology* (2016). [DOI: 10.1080/15563650.2016.1177652](https://doi.org/10.1080/15563650.2016.1177652)

Provided by Taylor & Francis

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