

Ketamine for the Prevention of Posttraumatic Stress Disorder in Burned Patients

To the Editor:

We read with interest the recent letter¹ suggesting that ketamine might explain the absence of suicide as a cause of death in the burn soldiers described by Escolas et al.²

We might observe that the low number of deaths (11 among 830 burn survivors) would prevent any definite interpretation. Anyway, the comment by Escarment et al reflects an attractive line of research.

The first suggestion of a possible protective effect of ketamine against the risk of posttraumatic stress disorder (PTSD) was in a 2008 retrospective study: McGhee et al reported a lower prevalence of PTSD among 119 burned soldiers who received ketamine when compared with 28 who did not (27 vs 46%).³ However, the same team published in 2014 a second retrospective analysis (N=289) where ketamine did not decrease the prevalence of PTSD.⁴

We recently conducted a retrospective study on 98 PTSD among 274 French soldiers wounded in Afghanistan. A multivariate logistic regression analysis showed that only head injuries, number of surgeries, and acute stress states were significant risk factors for PTSD. Like other factors included in the analysis (ISS, Glasgow coma score, blast, presence of KIA, amputations, use of morphine and midazolam, number of surgeries, sequelae, or chronic pain), ketamine was not independently related to PTSD.

Thus, despite its known psychotomimetic effects that have been responsible for years of undue contraindications, ketamine does not increase the risk of PTSD.

Ketamine has been explored for 15 years as a fast-acting antidepressant effective for rapid resolution of suicidal ideation. It is clear that PTSD and depression

are different mental troubles, but they may be related through mechanisms involving NMDA receptors.⁵ Moreover, Feder et al recently demonstrated that ketamine was an effective treatment in patients with chronic PTSD.⁶

No randomized prospective study had been conducted to explore the ability of ketamine either intraoperative or as a prehospital administration to lower the incidence of PTSD in trauma victims. Maybe it is time to conduct such studies, especially in burned patients.

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The first author (G.M.) has received honoraria from Renaudin Laboratories as a consultant. For the remaining authors, no conflict of interest and source of funding were declared.

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DOI: 10.1097/BCR.0000000000000412