



ISFAHAN UNIVERSITY OF MEDICAL SCIENCES
SCHOOL OF MEDICINE
EMERGENCY MEDICINE DEPARTMENT

Thesis for obtaining the specialty degree in Emergency medicine

Title:

**Comparison of Haloperidol and Midazolam in Restless
Management of Patients Referred to the Emergency
Department; a Double-Blinded Randomized Clinical Trial**

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Abstract:

Background: Restless and violent behaviors are common in emergency departments (ED) which need therapeutic interventions in most of times. The first generation anti-psychotic drugs are one of the most applicable therapeutic agents in management of such patients, but their use has some limitations. Some studies suggest midazolam as an alternative medicine. Therefore, this study was performed with the aim of comparison the efficacy and safety of haloperidol and midazolam in restless management of referring patients to EDs.

Methods: The present double-blinded trial was done on patients needed sedation and referred to the ED of Alzahra Hospital, Esfahan, Iran, in 2014. Patients were categorized in to two random groups of haloperidol (5 milligrams) and midazolam receivers (2.5 milligrams for those weighing <50 kilograms and 5 milligrams in >50 kilograms), as intramuscular administration. The time to achieve sedation, need for rescue dose, need to re-sedation within the first 60 minutes, and adverse effects of drugs were compared between groups.

Results: 48 patients were entered to the study. The mean age in haloperidol and midazolam groups were 44.8 ± 4.1 years and 45.5 ± 4.7 years, respectively ($p = 0.91$). The mean time of sedation in haloperidol and midazolam groups were 5.6 ± 0.3 minutes and 5.2 ± 0.1 minutes, respectively ($p = 0.31$). The mean time of full consciousness after sedation were 36.2 ± 4.5 minutes and 38.2 ± 3.4 minutes in haloperidol and midazolam groups, respectively ($p = 0.72$). On average, time to arousal in midazolam group was 10.33 minutes more than haloperidol group, but it was not statistically significant.

Conclusion: The results of the present study show that administration of midazolam and haloperidol have similar efficacy in treatment of restless symptoms with the same recovery time from drug effects for referring patients to the ED. Also none of adverse effects were observed in this study.

Keywords: Haloperidol; drug prescription; emergency treatment; movement disorders; drug effects, midazolam

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