The Effect of Ondansetron on Reducing Nausea Caused By Ketamine in Pediatric Patients Visiting Emergency Department; a Clinical Trial

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Abstract

Introduction: Nausea is a common side effect of ketamine in pediatric sedation and the controversy is still ongoing regarding use of anti-nausea drugs with ketamine to reduce this side effect. Thus, the present study was done aiming to evaluate the effectiveness of ondansetron in controlling the nausea caused by intramuscular (IM) and intravenous (IV) use of ketamine in pediatric sedation and analgesia. Methods: In the present single-blind randomized clinical trial, 1-18 year old children in need of sedation were divided into 4 treatment groups of IV ketamine, IM ketamine, IV ketamine and ondansetron, and IM ketamine and ondansetron, and prevalence of nausea and vomiting was compared between the groups as the main outcome of the study. Results: 120 children were studied (the most common age group 2-7 years 66.7%; 65.8% male). 18 (15.0%) patients were affected with nausea and vomiting. The prevalence of nausea in IV ketamine, IM ketamine, IV ketamine and ondansetron, and IM ketamine and ondansetron groups was 26.7%, 16.7%, 6.7% and 10.0%, respectively. There was no significant difference between the 4 studied groups regarding rate of nausea (p = 0.17). Conclusion: Based on the results of the present study, it seems that using ondansetron along with ketamine does not reduce nausea. Contradiction between studies is indicative of the need for further studies in this regard.

Keywords: Conscious sedation; ketamine; ondansetron; child; child, preschool; adult children