Prevalence of Tramadol Consumption in First Seizure Patients; a One-Year Cross-sectional Study.

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Abstract

INTRODUCTION: Previous studies have shown that there is a probability of seizure even with therapeutic doses of tramadol. Yet, no accurate data exist regarding this problem in Iran. Therefore, the present study aimed to evaluate the prevalence of tramadol consumption in patients with first seizure referred to the emergency department (ED).

METHODS: In the present retrospective one-year cross-sectional study, all patients who were referred to the ED of Poursina Hospital, Rasht, Iran, with the complaint of first seizure were evaluated. Demographic data and data regarding history of tramadol consumption, duration, total dose, last dose, and time passed from the last dose of consumption were recorded and analyzed regarding the study questions using SPSS 20.

RESULTS: 383 (68.9%) out of the 556 patients referred to the ED, were experiencing their first seizure (mean age 26.43 ± 6.48 years; 70.5% male). 84 (21.9%) patients had recently used tramadol. History of seizure in the family of tramadol consumers was significantly lower (3.6% compared to 11%; p = 0.036). Mean total tramadol consumption dose in the last 24 hours was 140.17 ± 73.53 mg (range: 50-300 mg). Duration of tramadol consumption was less than 10 days in 84.5% (df: 2; \(\chi^2\) = 96.1; p < 0.001). In addition, 62 (73.8%) patients had seizure within 6 hours of consumption (df: 3; \(\chi^2\) = 29.5; p < 0.001).

CONCLUSION: Results of the present study showed that 21.9% of the patients with first seizure had a history of tramadol consumption. Seizure following tramadol consumption is more prevalent in the initial 10 days and within 6 hours of consumption. In addition, it seems that lower doses of tramadol may also induce seizure.

KEYWORDS: Seizures; epidemiology; prevalence; tramadol