Clinical characteristics associated with the initial visits to emergency department in patients with migraine: a headache clinic-based study

Byung-Su Kim

Background: Migraine attack is common cause of the visits to emergency department (ED). The aim of this study is to investigate clinical characteristics associated with the initial visits to ED for migraine.

Methods: This was a cross-sectional study using an outpatient headache-clinic registry from September 2014 to August 2015. Consecutive first-visit migraine patients aged ≥ 19 years were dichotomously classified according to visiting patterns: referral from ED vs. direct visit to headache clinic groups (ED vs. HC groups). Logistic regression analysis was conducted to evaluate the association of clinical characteristics of migraine patients referred from ED.

Results: Of 257 patients (mean age: 43.6 ± 13.8 years, female: 76.7%) in this study, 38 (14.8%) were referred from ED during a 1-year period. Univariate analysis found that headache intensity (0–10 NRS), vomiting, and vestibular symptoms were associated with ED group, compared to HC group. In a multivariate-adjusted model, the odds ratios (95% CI) of headache intensity, vomiting, and vestibular symptoms for ED group were 1.31 (1.06–1.63), 2.60 (1.20–5.66), and 4.29 (1.84–10.00), respectively.

Conclusions: Patients of ED group were likely to have more severe headache intensity, vomiting, and vestibular symptoms. Our study suggests that disabling characteristics of severe headache intensity or troublesome associated symptoms could be independent predictors for the initial visits to ED among migraine patients.