English: Frequency, characteristics and predictors of headache attributed to acute ischemic stroke

a b s t r a c t

Objectives. – Although headache is a common symptom in acute ischemic stroke, the clinical and radiological factors associated with its occurrence are controversial. This work aimed to determine the frequency, characteristics, and predictors of headache occurrence among patients with acute ischemic stroke.

Methods. – This cross-sectional study was conducted on 303 patients with acute ischemic stroke. The patients were submitted to detailed history taking, clinical and radiological assessment. A detailed analysis of headache was performed for the patients who experienced headache temporally related to stroke onset.

Results. – Diagnosis of headache attributed to the ischemic stroke was established in 129 (42.6%) patients; sentinel headache in 17.2% of patients, and headache at stroke onset in 25.4% of patients. The headache group had a significantly younger age (P = 0.017), lower NIHSS score (P = 0.042), higher frequency of pre-existing headache disorders (P = 0.001), substance use disorder (P = 0.021), and fever (P = 0.036), and lower frequency of chronic hypertension (P = 0.013) and small vessel disease (P = 0.004) than non-headache group. Infarction involving posterior circulation was more frequent in headache than in non headache groups (P = 0.003). The presence of migraine, tension-type headache, other types of headache, fever and posterior circulation stroke increased the odds of headache by 27.4 (95%CI = 8.0–94.4), 7.6 (95%CI = 3.93–14.6), 26.2 (95%CI = 8.0–85.8), 3.75 (95%CI = 1.22–11.6) and 3.15 (95%CI = 1.65–6.0)times, respectively, whereas, the presence of small vessel disease decreased the odds of headache by 0.51 (95%CI = 0.279–0.95) times.

Conclusion. – Pre-existing headache disorder, fever, and posterior circulation stroke were associated with headache occurrence in acute ischemic stroke patients.