



An investigation of the prevalence of sub clinical brain lesions in MRI images of migraine patients

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Background: The use of the MRI method has opened up a new perspective on brain lesions.

Methods: This cross-sectional study was conducted on 300 patients with a migraine referred to Baqiyatallah and Amir Al-Momenin Hospitals from 2005 to 2006. We measured the relationship between the results of MRI and the type of brain subclinical lesion by indices such as age, gender, type of a migraine, the number of migraine attacks, blood pressure and heart diseases, cholesterol, diabetes and thyroid diseases. Finally, data were analyzed by IBM SPSS statistics software version 23. The significance level in this study was considered as $P > 0.05$.

Results: From among 300 patients, 87.7% were women in the age range of 13-72 years. Moreover, the results indicated that with increasing age, blood pressure and some migraine attacks, the frequency of abnormal MRI also is increased significantly as well as the ratio of a migraine with aura was significantly higher than a migraine without aura in individuals with abnormal MRI. Also, the ratio of white matter lesions (WML) is higher in a classical migraine (a Migraine with aura). Statistical analyses did not reveal any significant relationship between MRI results on age, diabetes, cholesterol, heart and thyroid diseases.

Conclusion: The prevalence of abnormal MRI in older people and those with high blood pressure and migraine with aura is higher, and the ratio of subclinical lesions in the population of a migraine with aura is more common than a migraine without aura.