Can visual evoked potential help the diagnosis of migraine?

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Abstract

Background&Objective: Migraine is a periodic headache, usually unilateral and mostly pulsating. This disease is seen in about 10% of general population. So far, no applicable and accurate diagnostic test has been introduced and the diagnosis has been made almost clinically and after other etiologies being ruled out. The aim of this study was to evaluate the diagnostic role of visual evoked potential (VEP) in patients with migraine.

Materials&Methods: Forty patients with migraine were enrolled in a prospective, case-control study during the years 2004-2005 in Tabriz Imam Khomeini hospital and underwent the VEP study along with 40 healthy volunteers (as the control group). The mean latency of waves N75, P100, N140 and amplitude of wave P100 were measured and compared between two groups. The frequency of increased mentioned waves were compared as well.

Results: The mean latency of wave N140 and the number of its increased values and amplitude of P100 were all significantly higher in patients group ($P<0.05$). The mean latency of P100 was significantly higher in patients with classic migraine ($P=0.05$).

Conclusion: In spite of the fact that there are some significant differences in the VEP results between the patients and the healthy cases, none (except of the patients with classic migraine) are considered as specific changes for migraine. However, for more definite results, further studies are recommended.

Key Words: Migraine without aura- Migraine with aura- Visual Evoked Potential