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MEETING ABSTRACT Open Access

EHMTI-0181. Fast recovery of visual evoked potential amplitude after photostress in migraine patients between attacks

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Background

Subtle impaired macular vision was observed among different psychophysical experimental tasks in migraine patients.

Aim

Here we studied visual evoked potential (VEP) after photostress (PS) representing an objective index of the dynamic properties of macular performance after exposure to intense light stimulation.

Method

We recorded VEPs in basal condition and after PS in 43 migraine patients (19 with [MA] and 24 without [MO] aura) and 14 healthy volunteers (HV). PS is induced for a duration of 30s by means of the bulb of a 200-W lamp. We compared P100 implicit time and N75-P100 amplitude of baseline VEP with those collected every 20s up to 200s after PS.

Results

VEP parameters did not differed between groups at the baseline. In all groups, the VEPs recorded after PS showed a significant increase in latency at 20s. In HV, N75-P100 amplitude significantly decreased 20s after PS, and recovered subsequently. There was no effect in the migraine groups. In fact, the percentage reduction in N75-P100 amplitude observed at 20s after photostress in MO and MA patients were lower than in HV (MO & MA vs. HV $P<0.05$). When data of migraine patients were combined, the percentage of amplitude change at 20s was negatively correlated with number of days since the last migraine attack ($r=-0.525$, $p=0.02$).

Conclusion

We documented altered recovery after PS under the influence of imminent attack. Whether or not present VEP findings are related to the ictal/interictal migraineur susceptibility to abnormal sensory perception, such as visual discomfort, remains to be determined.

No conflict of interest.

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