

ANALYSIS OF MULTIMODAL EVOKED POTENTIALS IN CLINICAL PRACTICE IN PATIENTS WITH MULTIPLE SCLEROSIS

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Background: Remyelination is an important repair strategy in multiple sclerosis (MS). The remyelination in MS is confirmed by electrophysiological methods. Neurophysiological examination often reveals changes which are asymptomatic for a long period.

The aim of this work is to carry out a dynamic analysis of evoked potentials in patients with MS in 3 and 6-month intervals for up to 3 years from the onset.

Materials and methods: The study subjects included 65 patients with MS (43 women and 22 men, mean age 26, 6 ± 3 , 7 years). All patients were subjected to visual evoked potentials (VEPs), somatosensory evoked potentials (SEPs), auditory evoked potentials (AEPs), MRI brain scan.

Results: During dynamic examination the parameters of AEPs or SEPs or slightly changed, or given the deterioration, that is, the growth of demyelination. In a small percent of cases, compared with the dynamics of the VEPs, improvements in these parameters were observed and there were processes remyelination: respectively 52% for VEPs, 23% for SEPs and only 17% for AEPs. During the first 3 years after it in the optic nerve active two opposing processes: on the one hand, the reduction process of remyelination, and on the other hand, the developing process of asymptomatic demyelination and / or axonal degeneration.

Conclusion: The clear process of remyelination can be seen in the analysis of the dynamics at the EP on the visual pathways. When the positive dynamics associated with the process of remyelination, there was a shortening of the latency up to a full normalization, and identify improvement reply form.