

## **Visual evoked potentials study in chronic idiopathic inflammatory demyelinating polyneuropathy.**

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**BACKGROUND:** The frequency of the association between chronic demyelinating inflammatory polyneuropathy (CIDP) and central nervous system (CNS) demyelinating lesions is probably underestimated.

**OBJECTIVE:** To investigate the occurrence of combined central and peripheral demyelination in CIDP patients and to correlate visual evoked potential (VEP) abnormalities with CNS demyelinating lesions, observed on brain magnetic resonance imaging, and antibodies against glycolipids.

**METHODS:** Nerve conduction studies, brain MRI and antibodies against glycolipids were prospectively studied in 17 patients who fulfilled the diagnostic criteria proposed for CIDP (Cornblath DR, Asbury AK, Albers JW, Feasby TE, Hahn AF, McLeod JG, Mendell JR, Parry GJ, Pollard JD, Thomas PK. Ad Hoc Subcommittee of the American Academy of Neurology AIDS Task Force. Research criteria for diagnosis of chronic inflammatory demyelinating polyneuropathy Neurology, 1991;41:617-618). VEPs were performed in each case before and after 6 months treatment with either intravenous immunoglobulins (IVIG) or steroids.

**RESULTS:** Eight patients (47%) had increased latencies in at least one eye or showed increased interocular latency difference. Four patients (23%) presented a significant high signal intensity on T2-weighted brain MRI images. Of these 4 patients, 3 had prolonged VEP latency. Two patients with delayed VEP latency had antibodies against GM1, and SGLPG and anti-sulfatides, respectively. One patient with normal VEPs also had antibodies to GM1. VEP results were not significantly modified after treatment, either with steroids or IVIG.

**CONCLUSION:** This study confirmed the high frequency of abnormal VEPs in CIDP patients, and found that they are poorly correlated with CNS demyelinating lesions and antibodies against glycolipids. The VEP abnormalities of these patients may be explained by the susceptibility to immune-mediated damage of both the peripheral nervous system and the optic nerve.