Controversy lies in the eye of the beholder: video-oculography in chronic inflammatory demyelinating polyneuropathy

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Introduction: Chronic inflammatory demyelinating polyneuropathy (CIDP) is an acquired immune-mediated inflammatory disorder of the peripheral nervous system that affects motor and sensory fibers of the limbs. Less than 5% of the patients develop symptomatic ocular movement disorders. To the best of our knowledge, quantitative analysis of both saccadic and smooth pursuit eye movements has never been studied in CIDP.

Methods: Fifteen consecutive CIDP patients followed in our neurological department were invited to undergo video-oculography (VO, Eye-Brain Tracker) in December 2015.

Results: Our group included 2 cases with pure motor, 7 with pure sensitive, and 6 with motor-sensory type CIDP. The sex ratio was 9M/6F and the mean age 58 years. The mean disease duration was 10 years. Mean overall neuropathy limitations scale score (range 0 to 12) was 3.5. None of the patients had ocular movement abnormalities on clinical (including complete oculomotor) examination. VO showed at least one saccadic or pursuit abnormality in all patients. Four patients had slow vertical saccades and three patients had slow horizontal saccades. Hypometric vertical and horizontal saccades were found in 5 and 6 patients respectively. Saccadic intrusions were observed in 4 cases and horizontal smooth pursuit was impaired in 2 patients. No specific oculomotor patterns were observed in the different CIDP types.

Conclusion: All CIDP patients in our study had abnormal VO despite normal bedside oculomotor examination. Hypometria and slowing of vertical saccades were the most common oculomotor disorders found in our CIDP patients.