



Pseudo-Internuclear Ophthalmoplegia

Psödo İnternükleer Oftalmopleji

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A 27-year-old woman had a 10 day history of horizontal diplopia and imbalance. In the last two years she had two episodes of transient diplopia although repeated MRIs of the brainstem were inconclusive.

On examination, she had bilateral restriction of adduction in horizontal gaze (Figures 1A, 1B, 1C) with a few beats of horizontal nystagmus on abduction. The patient was not able to converge on a near gaze.

The diagnosis of myasthenia gravis (MG) was made after an intramuscular prostigmine test (1.5 mg), which resulted in marked improvement of eye movements in 30 minutes (Figures 2A, 2B, 2C). Eye movements were defined as pseudo-internuclear ophthalmoplegia (pseudo-INO). Repetitive nerve stimulation (3-5Hz) showed a decremental response and serum acetylcholine receptor antibody was positive.

INO describes a gaze paresis characterized by an ipsilateral deficit of adduction and nystagmus of the contralateral abducting eye. A true INO is caused by a lesion in the medial longitudinal fasciculus, which usually occurs due to multiple sclerosis. Pseudo-INO results from peripheral conduction defects such as Miller-Fisher Syndrome and MG as in this patient (1,2).

Key Words: Diplopia, myasthenia gravis, pseudo internuclear ophthalmoplegia



Figure 1A: Right gaze

Figure 1B: Primary gaze

Figure 1C: Left gaze



Figure 2A: Right gaze after prostigmine

Figure 2B: Primary gaze after prostigmine

Figure 2C: Left gaze after prostigmine

References

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