Isolated Complete Horizontal Gaze Palsy and Multiple Sclerosis
İzole Tam Horizontal Bakış Paralizisi ve Multipl Skleroz

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Introduction
A male patient aged 24 years, was referred to our clinic with vision problems, diplopia, difficulty in seeing faces. The patient was also unable to move his eyes. The patient reported that he could not recognize the face of his friend and was not being able to see objects clearly after having an exhausting, sleepless night. His previous medical history and family medical history were unremarkable. In the neurologic examination, horizontal eye movements could not be made, vertical eye movements and convergence were normal. The rest of the neurological examination was normal. In the caloric test, no horizontal eye movement was observed after the application of cold water to either ear (Figure 1). Cranial magnetic resonance imaging (MRI) revealed multiple demyelinating lesions including lesion in the inferior medial part of pons (base of fourth ventricle) stretching bilaterally (Figure 2). Cervical spinal MRI, cerebrospinal fluid study and the other laboratory investigations were normal. The patient was diagnosed as having clinically isolated syndrome. The patient was given 1000 mg iv. methylprednisolone therapy for ten days and the horizontal eye movements improved almost completely. Later, the patient was diagnosed as having relapsing-remitting multiple sclerosis owing to his clinical course.

Horizontal eye movements start from impulses that arise from the frontal eye field and reach the paramedian pontine reticular formation (PPRF) in the pontine tegmentum (1). The
area affected in the pontine tegmentum in our case involved these areas bilaterally. Visual disorders; diplopia, defects of adduction and abduction and less commonly, one-and-a-half syndrome are seen in multiple sclerosis (2). Bilateral complete horizontal gaze palsy due to the bilateral involvement of the PPRF and/or 6th nerve nucleus, on the other hand, is very rare. There are two cases in the literature but only with bilateral partial gaze palsy as a presenting symptom of multiple sclerosis (3,4). Bourre et al. (3) named this clinical scenario as 1+1 syndrome. Structures for horizontal gaze occupy a small area in the pons and the affected structures can usually be determined by the type of clinical image.

**Authorship Contributions**

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**References**