


CASE REPORT

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Eight-and-a-half syndrome as the first presentation of multiple sclerosis in an Asian male: a case report

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Abstract

Background Multiple sclerosis is a diffuse chronic demyelinating disease of the central nervous system. It is relatively uncommon in the Asian population and even more so in males. Despite the usual involvement of the brainstem, eight-and-a-half syndrome remains a rare first presentation in multiple sclerosis. Only a few cases have been reported previously, but none involving the Asian population. Eight-and-a-half syndrome, a neuro-ophthalmological condition, is characterized by one-and-a-half syndrome with ipsilateral lower facial nerve palsy, which localizes lesions to the pontine tegmentum. This case report demonstrates the first case of eight-and-a-half syndrome as the first presentation of multiple sclerosis in an Asian male.

Case presentation A healthy 23-year-old Asian man presented with sudden onset of diplopia followed by left-sided facial asymmetry for 3 days. Assessment of extraocular movement revealed left conjugate horizontal gaze palsy. On right gaze, there was limited left eye adduction and horizontal nystagmus of the right eye. These findings were consistent with a left-sided one-and-a-half syndrome. Prism cover test revealed left esotropia of 30 prism diopters. Cranial nerve examination showed left lower motor neuron facial nerve palsy, while other neurological examination was normal. Magnetic resonance imaging brain showed multifocal T2 fluid attenuated inversion recovery hyperintense lesions, involving bilateral periventricular, juxtacortical, and infratentorial regions. A focal gadolinium contrast-enhanced lesion with open ring sign on T1 sequence was seen at the left frontal juxtacortical region. Multiple sclerosis was diagnosed on the basis of the clinical and radiological evidence, which fulfilled the 2017 McDonald criteria. Positive oligoclonal bands in cerebrospinal fluid analysis further confirmed our diagnosis. He had a complete resolution of symptoms 1 month after a course of pulsed corticosteroid therapy, and was subsequently placed on maintenance therapy with interferon beta-1a.

Conclusion This case illustrates eight-and-a-half syndrome as the first presentation of a diffuse central nervous system pathology. A wide range of differential diagnoses needs to be considered in such a presentation as based on the patient's demographics and risk factors.

Keywords Eight-and-a-half syndrome, Multiple sclerosis, Asian, Case report

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