

Multiple sclerosis associated with trismus

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Summary: This report describes the case history of a middle-aged lady who presented with symptoms and signs over one year leading to a diagnosis of multiple sclerosis. During one of her relapses, she developed trismus – an association that has not been described before in multiple sclerosis.

Introduction

Trismus has not been described as an association in multiple sclerosis (MS) in standard texts on MS.^{1,2} A possible case of MS is mentioned in a series of 15 patients with trismus.³ We report a patient with MS who developed trismus.

Case report

A 54 year old woman presented with an abrupt onset of bilateral ptosis and hesitancy of micturition following a sore throat. She had a left mastectomy and radiotherapy for carcinoma 3 years earlier. On examination she had bilateral ptosis with normal pupillary responses and eye movements. There were no signs of tumour recurrence. Haematology, biochemistry, immunology, syphilis serology, chest X-ray and computerized tomographic (CT) head scan with contrast were normal. Prostigmine 30 mg 4 hourly had no benefit. Within a month she made a complete recovery. Ten months later the symptoms recurred. In addition she had blurred vision and diplopia. Examination showed bilateral ptosis, pathologically brisk lower limb reflexes and bilateral extensor plantar responses. There was no sensory deficit. Viral titres, acetylcholine receptor antibodies, routine cerebrospinal fluid (CSF) analysis, Visual evoked responses (VERs), electromyography (EMG) and magnetic resonance imaging (MRI) of the head revealed no abnormality. An edrophonium (tensilon) test was negative. Her symptoms resolved over the next month.

Five weeks later she complained of difficulty in opening her mouth and in swallowing. On exam-

ination there was bilateral internuclear ophthalmoplegia (INO), spasm of the jaw with difficulty in opening the mouth. There was a brisk jaw jerk, a pronounced snout reflex and a palmomental reflex. The CSF showed oligoclonal bands. A diagnosis of demyelination was made. She was treated with baclofen and pulsed steroids and there followed a steady recovery with complete resolution of the trismus and other symptoms.

Discussion

Trismus signifies a maintained muscular spasm tending to close the jaws. The term does not include a mechanical inability to open the jaw as occurs in mumps, alveolar abscess or arthritic changes in the temporomandibular joint. It is a rare clinical manifestation and is commonly associated with tetanus. It also occurs in tetany, rabies, strychnine poisoning or malingering.⁴

Our patient presented initially with ptosis which is rare in MS but has been reported in 5% of patients in one series.⁵ She then had disseminated manifestations over the next 12 months. Ultimately, the INO, the relapsing and remitting nature of her presentation and the presence of oligoclonal bands in the CSF clinched the diagnosis of MS. The MRI scan may be normal in up to 13% of clinically definite MS.⁶

The mechanism of trismus is thought to be a damage to the trigeminal motor area in the brain stem.⁷ This causes a faulty programming of the jaw movements resulting in a paradoxical activity of jaw closing muscles during jaw opening.⁷ Other brain stem pathology such as metastasis, trauma and degeneration has been known to cause trismus.³ In this patient trismus resolved in a month. MS should be considered amongst the possible causes of trismus.

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References

1. Matthews, W.B., Acheson, E.D., Batchelor, J.R. & Weller, R.O. In: Matthews, W.B. (ed.) *McAlpine's Multiple Sclerosis*. Churchill Livingstone, Edinburgh, 1985.
2. Hallpike, J.F., Adams, C.W.M. & Tourtelotte, W.W. *Multiple Sclerosis: Pathology, Diagnosis and Management*. Williams, and Wilkins, Baltimore, 1983.
3. Schwerdtfeger, K. & Jelasic, F. Trismus in postoperative, posttraumatic and other brain stem lesions caused by paradoxical activity of masticating muscles. *Acta Neurochir (Wien)* 1985, **76**: 62–66.
4. Mackenzie, I. Trismus. In: Hart, F.D. (ed.) *French's Index of Differential Diagnosis*. John Wright and Sons, Bristol, 1973, pp. 773–774.
5. Poser, C.M., Presthus, J. & Horsdal, O. Clinical characteristics of autopsy – proven multiple sclerosis. *Neurology* 1966, **16**: 791–798.
6. Gebarski, S.S., Gabrielsen, T.O., Gilman, S., Knake, J.E. Latack, J.T. & Aisen, A.M. The initial diagnosis of multiple sclerosis – clinical impact of magnetic resonance imaging. *Ann Neurol* 1985, **17**: 469–474.
7. Jelasic, F. & Freitag, B. Inverse activity of masticating muscles with and without trismus: a brainstem syndrome. *J Neurol Neurosurg Psych* 1978, **41**: 798–804.