Natural Course of Patients with Acute Myelitis

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K. H. Chan, W. Mak, T. S. Cheng, R. T. F. Cheung, S. L. Ho
Division of Neurology, Department of Medicine, Queen Mary Hospital, The University of Hong Kong, Hong Kong

Introduction

Acute myelitis are most commonly due to para-infectious inflammatory response. Idiopathic relapsing myelitis occur in idiopathic inflammatory demyelinating disorders (IIDD) including conventional multiple sclerosis (MS), opticospinal MS (OSMS), neuromyelitis optica (NMO) and idiopathic relapsing transverse myelitis (IRTM). Previous studies might define patients with IRTM as clinically definite MS by Poser's criteria.

Aim

To study the frequency of IIDD in patients presenting with first myelitis attack employing stringent diagnostic criteria.

Methods

Patients presenting with first myelitis attack without known underlying diseases had MRI spine at presentation and repeated 3 months later. All had MRI brain, visual evoked responses and serum assays for autoimmune markers within 3 months, then repeated yearly for 2 years. MS was diagnosed only if they had recurrent inflammatory demyelination affecting brain and/or optic nerves, or if MRI findings fulfilled McDonald's criteria if no recurrent clinical attack. IRTM was defined as idiopathic relapsing myelitis sparing the cerebrum, cerebellum and optic nerves, with possible MRI signal abnormality extending from cervical cord to brainstem and clinical brainstem deficits.

Results

Thirty patients managed during January 1998 to March 2002 were studied. Follow-up duration ranged 30 to 66 months. Thirteen (43%) had single myelitis attack, 3 (10%) developed systemic lupus erythematosus. Fourteen had IIDD, 6 (20%) had MS (4 conventional, 2 opticospinal), 1 NMO, and 7 (23%) IRTM who were all female. Six of the 7 IRTM patients had myelitis extending over 2 or more vertebral segments on MRI, and were negative for CSF oligoclonal bands. Four (57%) IRTM patients had poor prognosis (1 died and 3 wheelchair-bound).

Conclusions

MS developed in 20% of patients presenting with first attack of acute myelitis. IRTM is common locally.