

Rt. leg weakness and Lt. abdominal hypesthesia after injury during push-up diagnosed as MS

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Introduction

Multiple sclerosis (MS) is a chronic inflammatory, neuromuscular degenerative disorder of the central nervous system. It is the most common cause of non-traumatic disability in young adults. MS remains a diagnosis of exclusion. It is important to distinguish and exclude other demyelinating disorders, including neuromyelitis optica, acute transverse myelitis, and acute disseminated encephalomyelitis. MS can present in numerous ways and affects several functional and cognitive systems. Common presenting symptoms in MS include optic neuritis, sensory loss, paresthesias, motor dysfunction, ataxia and weakness. These symptoms may be misconstrued as fatigue caused by other nonmedical factors or other non-neurologic issues. With these characteristics, patients with traumatic events may have difficulty diagnosing MS. Here we report a case of MS in a patient with a traumatic event.

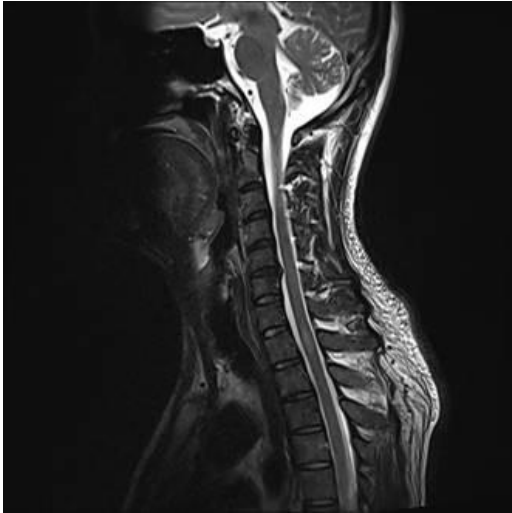
Case report

The patient was a 29-year-old man who had no significant past medical history. On May 28, 2018, he underwent a push up. At that time, someone else ran over the patient with a joke. After the event, right lower limb weakness and foot numbness, sensory abnormalities around right testis and anus occurred. The patient received acupuncture treatment, however, pain developed from the left chest to the central chest, upper back, and posterior upper arm. On June 6, 2018, when he moved leg, abnormal sensation of upper cheek was noted. Therefore, he visited local radiology clinic and took contrast-enhanced cervical spine magnetic resonance imaging (MRI). On the MRI image, abnormal signal intensity was found in T1 level. The patient visited Department of Rehabilitation Medicine, and after detailed history taking and neurologic examination, acute transverse myelitis or multiple sclerosis was suspected. The patient was referred to and admitted to Department of Neurology.. On Brain MRI, few transverse-directional patchy high flair signal intensity and heterogeneously enhancing lesions were found. There was no specific finding on the evoked potentials study. Blood tests were performed to differentiate other diseases and no specific findings were observed on the tests. After the evaluation, the patient was diagnosed as MS and discharged with medication.

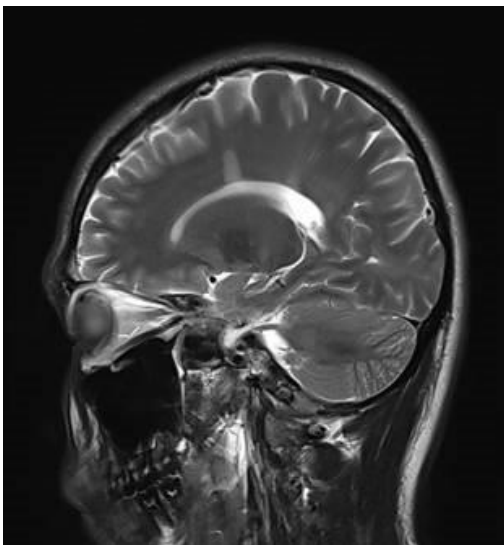
Conclusion

The incidence of MS is high in white population, and the incidence in Asia is relatively low. Most patients are female except for progressive recurrent MS. However, the peak age of diagnosis is believed to be 20 to 40 years. Severe optic neuritis and transverse

myelitis are common in Asia populations from early onset, and severe inflammation of cerebrospinal fluid is seen. This patient had suspicion of cervical spinal cord injury due to trauma before the onset of symptoms, but he was suspected of multiple sclerosis due to detailed history taking and MRI findings. Even with a recent traumatic event, patients with atypical symptoms like this patient should be evaluated thoroughly to exclude MS.



Cervical spine MRI showed heterogeneously enhancing lesion in the cord of T1 level.



Brain MRI showed a few transverse-directional patchy high FLAIR signal intensity.