An open minded approach in diagnosing Multiple Sclerosis in male patients

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Introduction :

Multiple sclerosis (MS) is an autoimmune disorder which is characterized by antibodies against the central nervous system (CNS). Autoantibodies attack myelinated axons forming plaques in the brain and spinal cord. Studies suggest that approximately 400,000 people in the US are affected by MS. It is twice more common in women between the ages of 20 to 40 years than men. Due to its relative rarity in males, less attention has been given to MS affecting male patients. Here, we report a case of a middle aged male who was diagnosed with MS to raise awareness of the increased incidence in this group.

Objectives :

To highlight the possibility of MS in male patients and the importance of early diagnosis and management in increasing the quality of life.

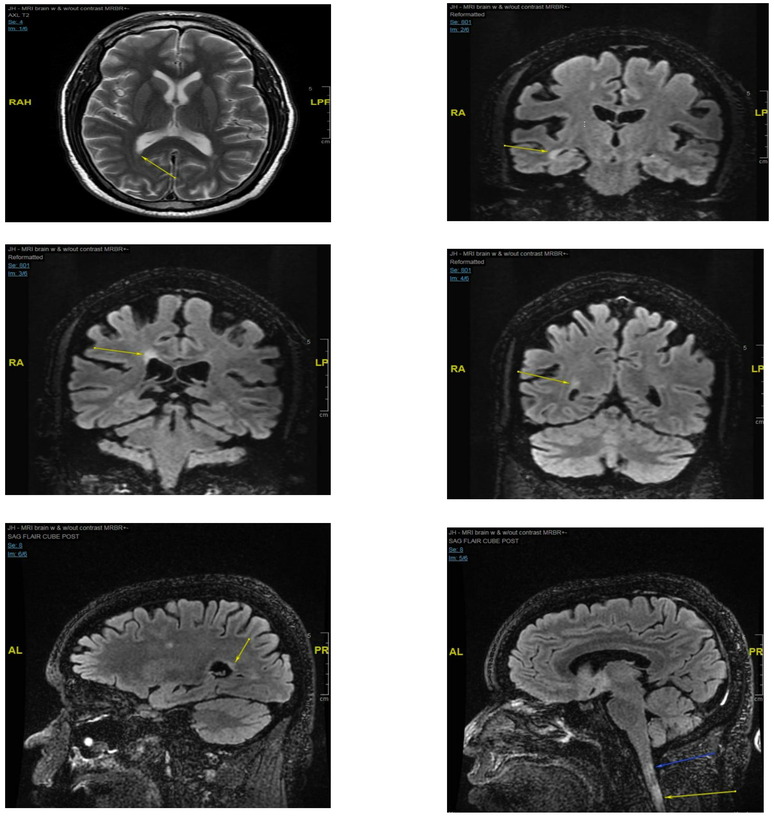
Case Description:

A 57-year-old male presented with numbness in lower extremities, over the perineal area but denied bowel bladder incontinence. A few months ago he was given a steroid injection at PCP's office for bilateral foot swelling. However, he developed intermittent instability while walking. A month ago, he developed numbness in left upper and lower extremities. Three days later, he visited the ER and was discharged after a CT head came back negative. The neurologist suggested an MRI of the spine to rule out spinal pathology.

Physical examination revealed decreased sensation in both bilateral upper and lower extremities and weakness in bilateral upper extremities. The MRI of the lumbar spine with out contrast revealed degenerative changes and epidural lipomatosis resulting in multilevel canal and neural foramina narrowing. An MRI of brain with and without gadolinium contrast and MRI cervical spine without contrast suggested demyelination. His labs were positive for myelin basic protein, oligoclonal bands and IgG in CSF.

MS was diagnosed and the patient was treated with methylprednisolone 1g IV for 4 days and then received steroid in tapering dosage. Upon discharge the patient followed up with neurologist and was started on interferon Beta-1a and vitamin D. The patient was also encouraged to be involved in social activities and follow up with physical and occupational therapists.

Figures:



MRI of the brain with and without contrast showing abnormal signaling in periventricula region, mostly one right temporal, right occipial and right parietal lobe, few additional foci within the deep white matter, more on the right cerbral hemisphere. Additional foci of abnormal signal is seen within the upper cervical cord at the C1 and C2-C3 level.

Discussion:

This case report illustrates the management of MS in a male patient who came with progressive worsening of neurological symptoms. High level of clinical suspicion is needed to diagnose MS in this group of patients. The diagnosis of MS is primarily clinical with the help of neurological criteria, such as the McDonald Criteria, which includes lesions disseminated in time and space to exclude alternative diagnoses. Neurologists agree that MS can be classified into four major groups: 1) Relapsing-remitting MS, 2) Secondary progressive MS, 3) Primary progressive MS and 4) Progressive-relapsing MS - with relapsing-remitting being the most common form affecting almost 85% of the patients with MS.

Corticosteroids and plasmapheresis have been the mainstay treatment in acute attacks, whereas beta interferon, glatiramer, ocrelizumab, natalizumb, fingolimod, and mitoxantrone have been prognosis modifiers. While the advance of new disease modifiers have been available, side-effects of these medications should be taken into consideration as well. Interferon-Beta is associated with liver function abnormalities, thyroid disease, leukopenia and depression. Glatiramer can cause injection site reactions. Mitoxantrone can cause nausea, vomiting and alopecia. Natalizumab can increase the risk of progressive multifocal leukoencephalopathy (PML) and anaphylaxis. Fingolimod can cause headache and elevations of serum transaminases.

Conclusion:

Stretching and strengthening exercises can help manage leg weakness and improve gait problems. Physical or occupational therapists can play a major role in helping the patients' quality of life by teaching them these exercises. Medications may be prescribed to relieve muscle spasms or stiffness, to reduce fatigue or depression. As stress may trigger the worsening of MS, regular follow ups, exercise and eating balanced diet can also be helpful.

MS being an incurable disease, a delay in diagnosis can be dangerous, particularly in the male patient population. Keeping an open mind and prompt diagnosis with new advance medications along with lifestyle modifications and simultaneous monitoring of drug side effects can make the patients' life relatively easier and more satisfactory.

References:

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