In the name of God

S.U.M.S.

Shiraz E-Medical Journal
Vol. 8, No. 3, July 2007

http://semj.sums.ac.ir/vol8/jul2007/ms.htm

Multiple Sclerosis Imitating As Conversion Reaction.

Basiri K*, Rabani G**.

* Assistant Professor, Department of Neurology, Alzahra Hospital, Isfahan University of Medical Science, Isfahan, Iran., ** General Practitioner, School of Medicine, Najafabad, Iran.

Correspondence: Dr. Keyvan Basiri, Department of Neurology, Al-Zahra Hospital, Isfahan, Iran, Telephone and Fax:: +98(311) 663-7753, E-mail: basiri@med.mui.ac.ir.

Received for Publication: January 28, 2007, Accepted for Publication: April 29, 2007.

Abstract:

Background: Multiple Sclerosis (MS) can presents with a wide variety of clinical manifestations. Because of diversity of symptoms and signs, physicians must be careful in attributing non- typical neurological manifestation to psychiatric disorders.

Case report: A 40 years old male patient referred to our clinic with history of gradual onset of left sided visual loss; and paresthesia and numbness on left side of the face and body. He was seen by many neurologists and psychiatrists and was treated with diagnosis of conversion reaction. Neurological examination was normal except for subjective sensory loss. Visual acuity was normal on both eyes. Marcus Gunn sign was negative. Brain Magnetic Resonance Imaging (MRI), Visual Evoked Potentials (VEP), and lumbar puncture confirmed diagnosis of multiple sclerosis.

Discussion: Multiple sclerosis may present with atypical symptoms and signs and no objective data may be found in neurological examination. Confusion with psychiatric problems has been mentioned in the literature . Physicians must be careful in attributing such symptoms to psychiatric disorders . Above mentioned case is a notable example of such a problem. He presented with simultaneous onset of loss of vision and hemi sensory loss on the same side, which is an anatomical impossibility from a single lesion and mentioned in neurological textbooks a sign of conversion reaction .Also no objective sign was found in neurological examination (negative Marcus Gunn sign and similar visual acuity in both eyes). Key point that resulted in correct diagnosis was careful sensory examination that revealed organic type of sensory loss (area of sensory loss was lesser than half of the face and body, and shift from painless to pain full area was Para sagittal and not in the midline). We concluded that atypical symptoms and signs must not automatically attribute to conversion reaction and accurate neurological examination is the best way of making correct diagnosis.

Key Words: Multiple Sclerosis, Conversion Reaction.

Introduction:

Multiple Sclerosis (MS) can presents with a wide variety of clinical manifestations. Typical symptoms and signs are monocular blurred vision, double vision, sensory symptoms and motor weakness, and eventually also cognitive deficits and a disturbed micturition [(1)]. Non-typical and rare symptoms include: Trigeminal neuralgia, hemifacial spasm, loss of taste and smell, acute pain localized within the area of the lumbar-sacral spine, isolated lesion of nerve VI [(2)] ,facial palsy [(3)], and focal hyperhydrosis [(4)]. In 85% of young adults with multiple sclerosis (MS), onset is a sub acute clinically isolated syndrome (CIS) of the optic nerves, brainstem, or spinal cord [(5)]. Sensory symptoms and signs may have central or peripheral origin. Sub clinical peripheral nervous system abnormalities are very frequent in MS patients [(6)]. The most frequently reported characteristics of the symptoms were paresthesia, neuralgia and deep muscular aching [(7)]. From the lost fibers in multiple sclerosis, small fibers (<3 microm2) seem to be particularly affected, with large fibers remaining relatively preserved in both the corticospinal and sensory tracts [(8)]. Because of diversity of symptoms and signs, physicians must be careful in attributing non typical neurological manifestation to psychiatric disorders.

Case report:

A 40 years old male patient referred to our clinic with history of gradual onset of left sided visual loss (VL), and paresthesia and numbness on left side of the face and body. He was seen by many neurologists and psychiatrists and was treated with diagnosis of conversion reaction. He had no past medical history of other neurological manifestations, head trauma, surgery, lumbar puncture, anesthesia and recent vaccination. Family history was negative. He was working as a cashier in a bank.

In examination he was a well oriented, polite, gentle, and healthy man. Cranial nerves were within normal limits except for sensory loss (SL) on left side of the face. Marcus Gunn sign was negative. Neck was supple. Force was 5/5 in all four extremities. Deep Tendon Reflexes (DTR) were 2 plus in both upper and lower limbs.

Abdominal skin reflexes were intact in all three levels bilaterally. Hoffman's sign was negative. Babinski sign was negative bilaterally. Finger to nose and heel to shin were within normal limits. Gait was intact. Position and vibration sensation was intact in both upper and lower extremities. In pinprick examination sensory loss was detected in left side of the face and body. Territory of sensory loss was lesser than half of the face and trunk. Visual acuity was 10/10 on both eyes.

Brain Magnetic Resonance Imaging (MRI) and Visual Evoked Potentials (VEP) was ordered. Brain MRI revealed a large plaque in right side of upper pons and a few small plaques in Centrum semi ovale. In VEP, P-100 latency was 121.2 on left side and 116.4 on right eye. Pulse therapy was prescribed and test for Anti Nuclear Antibody (ANA) , ANCA, anti double strand DNA, lupus Anticoagulant, anti

phospholipid (IgM, IgG), Anti cardiolipin (IgM, IgG), Serum homocysteine, C3, C4, CH50, B2 grycoprotein, SSA and SSB was ordered. All the above tests were within normal limits. Lumbar puncture was performed and oligoclonal band (OCB) was detected in Cerebro-Spinal Fluid (CSF). Symptoms were relieved dramatically after termination of pulse therapy.

Discussion:

Early manifestations of Multiple Sclerosis may be subtle and unusual, pathologic process may present with atypical symptoms and signs and no objective data may be found in neurological examination.

Confusion with psychiatric diseases has been mentioned in the literature [9]. Frentz et al, described a case in which misdiagnosis of multiple sclerosis with findings of progressive paraplegia and a neurogenic bladder led to supravesical urinary diversion. Psychotherapy later uncovered hysterical conversion reaction, which was cured with hypnotherapy[10]. On the other hand, Talley mentioned cases of multiple sclerosis with unusual presentations that misdiagnosed as hysteria and neurosyphilis [11]. Physicians must be careful in attributing such symptoms to psychiatric disorders. Above mentioned case is an example of such a problem, representing a rare case of co-occurrence of sensory loss and visual loss on the same side of body due to an organic disease. He presented with simultaneous onset of visual loss and hemi sensory loss on the same side, which is an anatomical impossibility from a single lesion and mentioned in neurological textbooks as a sign of conversion reaction [12]. No objective sign was found in neurological examination (negative Marcus Gunn sign and similar visual acuity in both eyes). Only subjective sign of hemi sensory loss and paresthesia was detected. Key point that resulted in correct diagnosis was careful sensory examination, that revealed organic type of sensory loss (area of sensory loss was lesser than half of the face and body, and shift from painless to pain full area was Para sagittal and not in the midline). Also involvement of small fibers (pain and temperature) and sparing of large fibers (position and vibration) was the typical form of sensory loss that seen in multiple sclerosis [8]. Diagnosis of Ms was confirmed with Poser's criteria (Presentation with SL and VL, Organic type of SL in examination, Brain MRI, VEP, And OCB in CSF).

It is concluded that atypical symptoms and signs must not automatically attribute to conversion reaction, and for such a diagnosis we must adhere to strict diagnostic criteria. Similarly, for diagnosis of MS we must not be confused with trivial and atypical presentations. In this situation expending a few more minutes for accurate neurological examination may provide valuable information that leads to correct diagnosis .

Acknowledgment:

The authors wish to appreciate the patient and his family for their kind Co-operation.

References:

1. Mattle HP. Multiple sclerosis—update. Schweiz Rundsch Med Prax. 2005 Jul 27;94(30-31):1167-70.

2. Bartosik-Psujek H, Psujek M, Stelmasiak Z. Rare first symptoms of multiple sclerosis. Ann Univ Mariae Curie Sklodowska [Med]. 2004;59(1):242-4.

3. Critchley EP. Multiple sclerosis initially presenting as facial palsy. Aviat Space Environ Med. 2004 Nov;75(11):1001-4.

4. Deramecourt V, De Seze J, Delalande S, Cassim F, Vermersch P. Multiple sclerosis with sensory disturbances and hyperhidrosis of the hand. Rev Neurol (Paris). 2004 Sep;160(8-9):830-2.

5. Miller D, Barkhof F, Montalban X, Thompson A, Filippi M. Clinically isolated syndromes suggestive of multiple sclerosis, part I: natural history, pathogenesis, diagnosis, and prognosis. Lancet Neurol. 2005 May;4(5):281-8.

6. Pogorzelski R, Baniukiewicz E, Drozdowski W. Subclinical lesions of peripheral nervous system in multiple sclerosis patients. Neurol Neurochir Pol. 2004 Jul-Aug;38(4):257-64.

7. Beiske AG, Pedersen ED, Czujko B, Myhr KM. Pain and sensory complaints in multiple sclerosis. Eur J Neurol. 2004 Jul;11(7):479-82.

8. DeLuca GC, Ebers GC, Esiri MM. Axonal loss in multiple sclerosis: a pathological survey of the corticospinal and sensory tracts. Brain. 2004 May;127(Pt 5):1009-18. Epub 2004 Mar 26.

9. Russo MB, Brooks FR, Fontenot J, Dopler BM, Neely ET, Halliday AW. Conversion disorder presenting as multiple sclerosis. Mil Med. 1998 Oct;163(10):709-10.

10.Frentz GD, Wilcox ME, Epstein AW. Reversal of Urinary tract diversion after recovery from hysterical conversion reaction. South Med J. 1981 Sep;74(9):1158-9.

11. Talley CL. The emergence of multiple sclerosis, 1870-1950: a puzzle of historical epidemiology. Perspect Biol Med. 2005 Summer;48(3):383-95.

12. Ropper AH, Brown RH. Adam's and victor's Principles of neurology: Psychiatric disorders. MacGraw-Hill.2005:1299.