

Original research article

A case study on low backache with radiculopathy along with sensory motor amnesia

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Abstract

Background: A subject presented with Low back pain along with Sensory Motor Amnesia and also presented with weakness along the posterior line muscle.

Materials and Methods: In this case study an integrated approach of treatment strategy involving western acupuncture, with TENS on radicular pain course along with strengthening was adopted after differential diagnosis.

Results: and Conclusion: After 15 sessions of physical therapy, symptoms were alleviated without the subject under the case study being administered any neuromodulator drug

Keywords: Low backache, radiculopathy, sensory motor amnesia, dry needling

Introduction

Acute lumbosacral radiculopathy is a condition characterized by the involvement of several nerve roots, resulting in a range of symptoms such as pain, sensory impairment, and motor dysfunction. The severity of these symptoms is contingent upon the degree of nerve compression. Lumbosacral radiculopathy is a prevalent condition. The majority of instances of lumbosacral radiculopathy are characterized by a brief duration and resolve spontaneously.

The term "functional somatic syndrome" has been used to describe a collection of interconnected syndromes that are primarily distinguished by the presence of symptoms, distress, and impairment, rather than by reliably observable tissue abnormalities. The aforementioned disorders include multiple chemical sensitivity, sick building syndrome, repeated stress damage, the adverse effects of silicone breast implants, the Gulf War syndrome, chronic whiplash, chronic fatigue syndrome, irritable bowel syndrome, and fibromyalgia. Individuals diagnosed with functional somatic syndromes have well-defined and intricate self-diagnoses, and their symptoms often demonstrate resistance to comfort, explanation, and conventional symptom management approaches. (Barsky & Borus, 1999)

The somatic philosophies propounded by Hanna Thomas primarily also emphasized on the distinctive elements inherent to this particular somatic explorer. Hanna's approaches are juxtaposed with the conventional somatic movement.

Background: A 38-year-old gentleman having a sudden severe episode of back pain along with radiating pain in the right leg walked into the clinic. The pain affected his ADLs as well as his sleep quality.

Subjective assessment: Pain severity was high enough to make the subject unable to assume a sitting position. He complained of pain being more in the leg than in the back. On VAS he exhibited a score of 8/10 on his first visit.

Aggravating Factors: Severe pain in a low sitting position as well as nocturnal pain. Pain also increased with prolonged standing and in supine lying.

Relieving factor: Intermittent walking from supine or intermittent positional change to sitting, though he could not assume a sitting posture for long.

Past medical history: The subject being an old case of back pain for last 3 years, complaint of pain which became more severe as time elapsed. He reported to be doing outdoor cycling on frequent basis. However, the pain slowly increased and presented with additional symptoms of radiculopathy and the pain persisting even at rest in supine for almost 3 weeks now. He also reported losing some weight during this period.

On observation: The endomorphic subject presented with rounded shoulder along with kyphotic back, flat lordosis curve, right foot laterally rotated. This suggested alterations in the firing of the gluteal muscles and also suggested an eccentrically loaded abdominal muscle.

On examination: Calf muscles were evaluated to have moderate to severe tightness (right more than left) and position of the right pelvis was anterior inferior and shifted towards left. Also on palpation, pressure exerted on the calf muscles lead to aggravation of pain. Assessment was suggestive of SMA (Sensory Motor Amnesia) of gluteal muscle, flattening of lumbar lordosis along with pain in the calf.

Investigation: Color doppler was used to evaluate both lower limb to rule out vascular component. CRP, RA, CBC and MRI of spine were conducted. The MRI was also compared with old MRI (which was done 03 years ago). Radiological Examination revealed previously moderate impingement at L5-S1 Level. Recent MR image showed improvement at L5-S1 Level (Moderate -> Mild). Also, a recent MRI showed left paracentral extrusion and moderate impingement at L4-L5 level; clumping Nerve roots go towards stenosis.

Keywords: SMA (Sensory Motor Amnesia), ADI (Activity of Daily Living), TENS (Transcutaneous Electrical Nerve Stimulation)

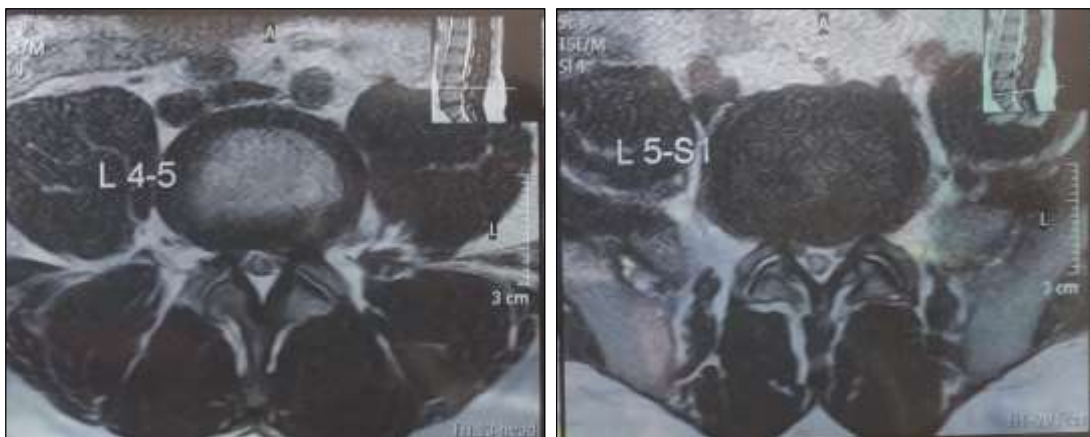


Fig 1: Previous MR image

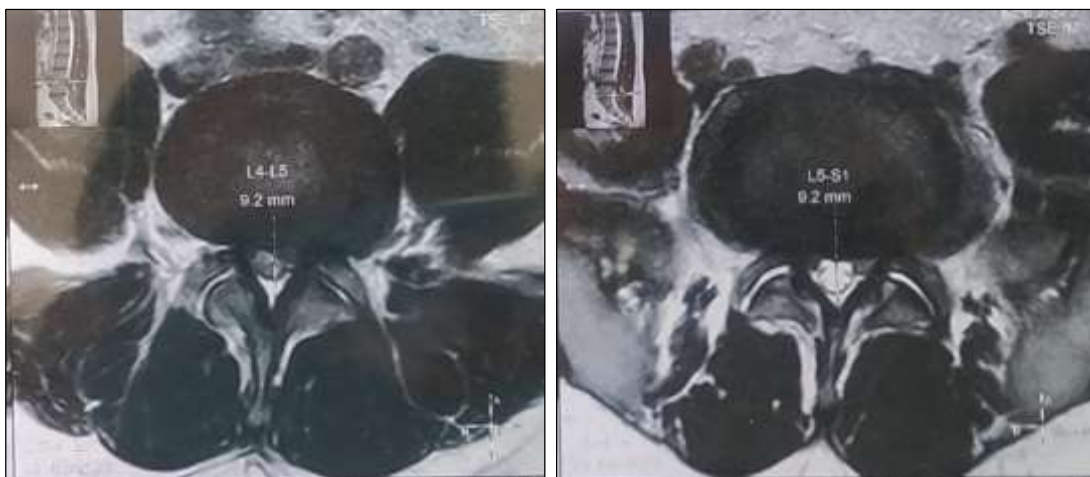


Fig 2: Recent MR Image



Fig 3: Myelogram suggestive of near-total obliteration of CSF signal L4-L5 level

The investigations helped in differential diagnosis and ruling out the peripheral vascular disease component. Also, the biochemical markers along with peripheral color Doppler were absolutely normal. However, the symptoms did not improve by rest or medicine; looking into the presentation of the symptoms the treatment strategy was changed to a modern physiotherapeutic approach.

Treatment administered: Brainstorming session amongst the researchers suggested to apply an integrated approach of treatment strategy involving western acupuncture, with TENS on radicular pain course along with strengthening of posterior line muscle i.e., gluteus, hamstring and calf, with the help of good sensory input.



Fig 4: Posterior line muscle i.e., gluteus, hamstring and calf



Fig 5 & 6: Dry needling sites are depicted as dotted points

The blue ink dots depicted in the figure 5 and 6 depict the actual site of dry needling where three 75 mm & three 25 mm dry needles were used to activate the muscle along with western acupuncture points. After 15 sessions of physical therapy, symptoms were alleviated without the subject under the case study being administered any neuromodulator drug. The subject was also able to complete 10 km of cycling after 4 weeks of treatment sessions.

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