



Open Access via [www.jppls.org](http://www.jppls.org)

## Journal of Parkinsonism & Restless Legs Syndrome

Volume 1

Issue 1 (Dec. 2011)

TEACHING  
CASE

### Pain in Lower Extremities in a Patient with Spina Bifida and Spinal Dysraphism

Iftekhharul Haq,\* Mohammed A. Rana

Department of Neurosurgery, Thunder Bay Regional Hospital, Lakehead University Thunder Bay, Ontario, Canada

#### HISTORY

A 55 year old right handed male presented to the neurosurgical service with chief complaint of aching pain in both calves. The pain was located in his shins below the knees. The pain occurred late in the evenings and increased before going to bed. His pain interfered with falling asleep, however, once he was asleep there was no pain. In the daytime, he had no pain in the lower extremities. These symptoms started about three years ago and gradually worsened. He denied any weakness, sensory numbness, tingling, bowel-bladder problems, or gait difficulty. He could walk unlimited distances.

The patient was a known case of *diastatomyelia* with a history of *spina bifida* from childhood. He also had cervical and thoracic surgery performed for spinal *dysraphism*. He was not on any medications.

He was married and living with his wife and had three children. He did not smoke. He used to drink alcohol only socially and worked as an optometrist. Family history was significant for diabetes and high blood pressure.

#### PHYSICAL EXAMINATION

Upon examination, his speech was clear and fluent. Higher mental functions were intact. Examination of the cranial nerves was normal. Motor

testing showed normal bulk, tone, and strength. There was no resting tremor. Finger-nose-finger and heel-to-shin testing were normal. Deep tendon reflexes were 2+ and symmetrical. Plantar reflexes were flexor. Primary sensory modalities were normal. Romberg test was negative. He was able to touch his thighs and extension of the lumbosacral spine was 20 degrees and lateral flexion was 20 degrees bilaterally. Straight leg raising test was normal on both sides. He was able to walk on tiptoes and heels. Tandem gait was also normal.

A differential diagnosis of symptoms secondary to *spina bifida*, spinal *dysraphism*, and *diastatomyelia* or *polyneuropathy*, as well as degenerative spine disease was considered.

#### INVESTIGATIONS

MRI of the spine did not show any compression of the exiting nerve root or thecal sac, which was initially thought to be the cause of his symptoms.

NCS/EMG did not show any evidence of peripheral nerve dysfunction, radiculopathy, plexopathy, or peripheral nerve entrapment.

#### MANAGEMENT

A neurology consultation was requested. The neurologist entertained the differential diagnosis of restless legs syndrome (RLS). Serum iron profile and BUN/Cr were requested, but were normal. Patient was started on 0.25mg pramipexole, taken 45 minutes before bed. This was increased to 0.5 mg after one week. Three days later, the patient started to notice

\* Correspondence to: Iftekhharul Haq, Department of Neurosurgery, Thunder Bay Regional Hospital, Lakehead University, Thunder Bay, Ontario, Canada. Email: [iftikhharul\\_haq@hotmail.com](mailto:iftikhharul_haq@hotmail.com).

partial improvement of his symptoms, and two weeks later reported almost complete relief.

Although various spinal abnormalities have been reported to cause symptoms similar to RLS,<sup>1</sup> this patient's constellation of symptoms was consistent with the RLS, presenting with the sort pain which has been reported in the literature.<sup>2</sup>

#### REFERENCES

1. Hartmann M, Pfister R, Pfadenhauer K. Restless legs syndrome associated with spinal cord lesions. *J Neurol Neurosurg Psychiatry* 1999; 66(5): 688-9.
2. Hornyak M, Stiasny-Kolster K, Evers S, Happe S. Restless legs syndrome and nocturnal leg pain: Differential diagnosis and treatment. *Sleep Med* 2011; 12(2): 186-9.