

Letter to the Editor

PERSPECTIVE OF SENSORY ATAXIA IN LEPROSY

Sir,

We read with interest the case report titled “Pseudoathetosis and ataxia – a rare presentation of multibacillary leprosy in a non-endemic area” published recently in your journal.¹ While the case report discusses an uncommon feature of leprosy and cites a single case report of similar nature, we wish to bring to attention previously documented literature on this subject.

Pandya *et al.* in 1994² reported on seven patients (three males, four females) with polyneuritic leprosy who manifested with severe proprioceptive loss in the upper and lower limbs; resulting in severe sensory ataxia. Tendon reflexes were absent in the ataxic limbs. Electrophysiological studies in these patients confirmed damage to large cutaneous and muscle afferents, and a normal electromyography pattern in hip and shoulder muscles. Of great interest was the histology of a lumbar sensory ganglion biopsied in a severely disabled patient. Histology showed extensive neuron loss and degeneration and reactive proliferation of capsular cells (nodules of Nageotte), an inflammatory focus of lymphocytes and no bacilli. Hence it was suggested by the authors that such proprioceptive loss could well be the result of an unusual ‘leprosy ganglionitis’.

Khadilkar *et al.* in 2007 documented the MRI changes of leprosy ganglionitis.³ Their patient also had MRI signals in the spinal cord at the corresponding level of ganglion changes. A single case of leprosy ganglionitis and myelitis has also been recently presented from Brazil.⁴ A Japanese postmortem series has documented lepra antigens [PGL-1] in various parts of central nervous system in patients [44/67], documenting the proximal spread of leprosy in the nervous system.⁵

In a series of 19 patients having proprioceptive loss in leprosy neuropathy described by Khadilkar *et al.*⁶ 68.42% patients had multibacillary form of leprosy. The pan sensory neuropathy had a mean duration of 24.32 months, but sometimes appeared early in the course of the disease. Areflexia and electrophysiological evidence of proximal affection was common, reflecting proximal spread of neuropathic process. Authors noted that such patients had a higher incidence of developing deformities and ulcerations secondary to loss of proprioceptive inputs.

Thus, while uncommon, proprioceptive loss has been well documented with the help of electrophysiology, pathology and MRI imaging in literature. Such patients represent a subset, often multi-bacillary and vulnerable to deformities and disabilities.

*All from Bombay Hospital
and Medical Research Centre,
Mumbai, Maharashtra,
India
khadilkarsatish@gmail.com*

S V KHADILKAR MD, DM, DNBE, FIAN, FICP, FAMS
ABHINAY M HUCHCHE MD, DM
NAHUSH D PATIL MD
MADHU SINGLA MD
S S PANDYA MBBS

References

- ¹ Kostenbauer J, Kempton H. Pseudoathetosis and ataxia – a rare presentation of multibacillary leprosy in a non-endemic area. *Lepr Rev*, 2016; **87**: 243–245.
- ² Pandya SS, Bhakti WS. Severe pan-sensory neuropathy in leprosy. *Int J Lepr Other Mycobact Dis*, 1994; **62**: 24–31.
- ³ Khadilkar SV, Kasegaonkar PS, Ursekar M. Spinal cord involvement and ganglionitis in leprosy. *Neurol India*, 2007; **55**: 427–442.
- ⁴ Rice CM, Oware A, Klepsch S *et al*. Leprous ganglionitis and myelitis. *Neurology® Neuroimmunology & Neuroinflammation*, 2016; **3**: e236.
- ⁵ Aung T, Kitajima S, Nomoto M *et al*. Mycobacterium leprae in neurons of the medulla oblongata and spinal cord in leprosy. *J Neuropathology & Experimental Neurology*, 2007; **66**: 284–294.
- ⁶ Khadilkar SV, Benny R, Kasegaonkar PS. Proprioceptive loss in leprosy neuropathy: a study of 19 patients. *Neurol India*, 2008; **56**: 450–455.