

PERONEAL NERVE PALSY DUE TO OSTEOCHONDROMA OF THE FIBULAR HEAD: A RARE CAUSE OF FOOT DROP

Recep Kamil Kilic¹, Salih Akbas¹, Akif Muhtar Ozturk², Ercan Demir¹

¹Gazi University School of Medicine, Department of Pediatric Neurology, Ankara, Turkey,

²Gazi University School of Medicine, Department of Orthopedics and Traumatology, Ankara, Turkey



INTRODUCTION

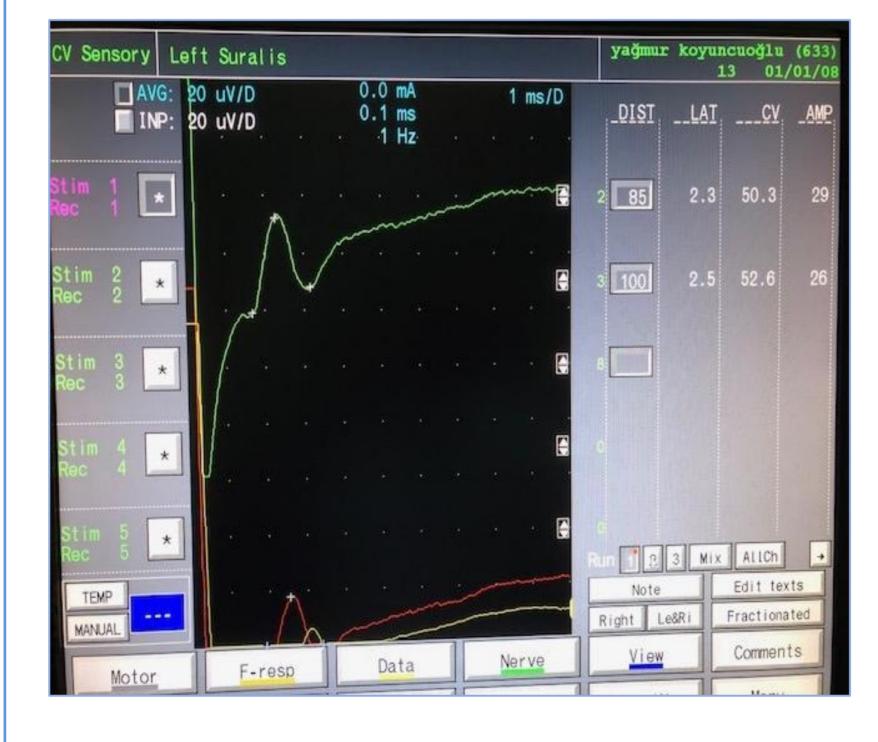
Peroneal nerve lesion is the most common cause of foot drop. Peroneal neuropathies often develop after trauma, direct injury or upon entrapment along the nerve proximal or distal to the fibular head. Peroneal nerve is rarely entrapped by osteochondroma in the fibular head, resulting in drop foot.

CASE

A five-year 8-month-old girl complained of walking difficulty, weakness in standing, limping and dragging walking on the left foot and tingling on the left side over 2 months. The patient cannot perform dorsiflexion of left foot. Also paralysis of a left tibialis anterior muscle(0/5), a left peroneus longus muscle(1/5), a left extensor digitorum longus muscle(0/5) were detected. And sensorial deficit was found on her left lower leg anterolateral region and the dorsum of the left foot.

Figure 1: EMG of patient





Nerve conduction study and needle EMG showed axonal peroneal neuropathy distal to fibular head.

Figure 2: Radiography of patient



On her left lower leg X-ray and MRI; osteophytic protuberance was detected in the neck of the left fibula and excised. The diagnosis of osteochondroma was histopathologically made and she recovered without any sequelae.

RESULTS

As seen in this case, electrophysiological studies play an important role in determining the level of nerve damage, the location of the lesion and the degree of motor and sensorial damage.

CONCLUSION

Osteochondroma of the fibular head should be considered in differential diagnosis of peroneal neuropathy associated with drop foot. Early diagnosis and treatment may improve outcome and prevent complications.

REFERENCES

- J. M. Cardelia, J. P. Dormans, D. S. Drummond, R. S. Davidson, C. Duhaime, and L. Sutton, "Proximal fibular osteochondroma with associated peroneal nerve palsy: a review of six cases," Journal of Pediatric Orthopedics, vol. 15, no. 5, pp. 574–577, 1995
- M. Demiroğlu, K. Özkan, B. Kılıç, A. Akçal, M. Akkaya, and F. Ü. Özkan, "Deep peroneal nerve palsy due to osteochondroma arising from fibular head and proximal lateral tibia," International Journal of Surgery Case Reports, vol. 31, pp. 200–202, 2017.
- F. R. A. Van den Bergh, F. M. Vanhoenacker, E. De Smet, W. Huysse, and K. L. Verstraete, "Peroneal nerve: normal anatomy and pathologic findings on routine MRI of the knee," Insights Into Imaging, vol. 4, no. 3, pp. 287–299, 2013.
- F. H. Netter, Atlas of Human Anatomy, Elsevier Health Sciences, 7th edition, 2017