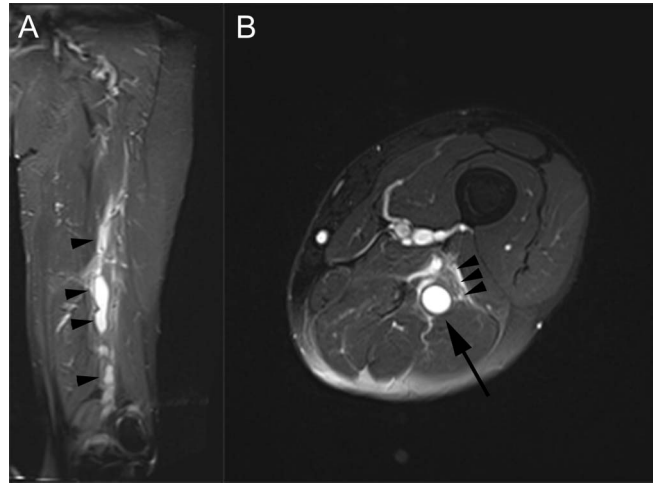


Teaching NeuroImages: Intraneural ganglion cyst of the tibial nerve

Nivedita U. Jerath, MD
Joseph J. Chen, MD
Benjamin J. Miller, MD
Chandan G. Reddy, MD

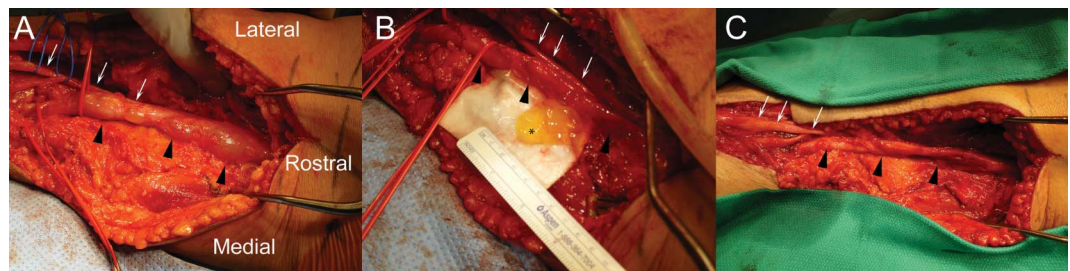
Correspondence to
Dr. Reddy:
chandan-reddy@uiowa.edu

Figure 1 MRI of left femur with intraneural ganglion cyst involving tibial nerve



(A) Coronal T1 STIR MRI of the left femur shows cystic involvement of the sciatic nerve (arrowheads). (B) Axial T2 fat-suppressed MRI of the mid-distal left femur more specifically demonstrates cystic enlargement of the tibial division (arrow) relative to the more normal peroneal division (arrowheads) of the sciatic nerve.

Figure 2 Operative photographs of left sciatic nerve show tibial cyst with secondary compression of the peroneal division



(A) Operative photographs of a posterior view of the left leg show enlarged tibial nerve (black arrowheads) with intraneural ganglion cyst and relatively normal-sized peroneal nerve (white arrows) with (B) cyst material (asterisk) causing secondary compression of the peroneal division of the sciatic nerve, emanating under pressure after tibial neurolysis. (C) Nerves after decompression.

A 59-year-old man with knee arthritis suddenly developed left posterior thigh pain and complete paralysis of his foot. EMG/nerve conduction studies localized the lesion to the distal sciatic nerve in the thigh (absent motor units from the short head of biceps femoris but normal vastus lateralis). Imaging

demonstrated an intraneural ganglion cyst in the tibial nerve extending up to the sciatic nerve (figure 1), which was resected (figure 2). Synovial fluid escaped from a capsular defect, tracking up a tibial articular branch of the sciatic nerve, causing secondary compression of the peroneal division.^{1,2}

Download teaching slides:
Neurology.org

From the Departments of Neurology (N.U.J.), Orthopedics and Rehabilitation (J.J.C., B.J.M.), and Neurosurgery (C.G.R.), University of Iowa Hospitals and Clinics, Iowa City.

Go to Neurology.org for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

Intraneural ganglia typically involve the peroneal nerve.

AUTHOR CONTRIBUTIONS

Nivedita Uberoi Jerath: design, conceptualization of the study, analysis and interpretation of the data, drafting and revising the manuscript. Joseph J. Chen: analysis and interpretation of the data. Benjamin J. Miller: analysis and interpretation of the data. Chandan Gopal Reddy: design, conceptualization of the study, analysis and interpretation of the data, drafting and revising the manuscript.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

REFERENCES

1. Spinner RJ, Carmichael SW, Wang H, Parisi TJ, Skinner JA, Amrami KK. Patterns of intraneural ganglion cyst descent. *Clin Anat* 2008;21:233–245.
2. Spinner RJ, Hebert-Blouin MN, Amrami KK, Rock MG. Peroneal and tibial intraneural ganglion cysts in the knee region: a technical note. *Neurosurgery* 2010;67:ons71–ons78; discussion ons78.

Neurology®

Teaching NeuroImages: Intranural ganglion cyst of the tibial nerve

Nivedita U. Jerath, Joseph J. Chen, Benjamin J. Miller, et al.

Neurology 2014;82:e174-e175

DOI 10.1212/WNL.0000000000000429

This information is current as of May 19, 2014

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/82/20/e174.full
Supplementary Material	Supplementary material can be found at: http://n.neurology.org/content/suppl/2014/05/18/82.20.e174.DC1
References	This article cites 2 articles, 0 of which you can access for free at: http://n.neurology.org/content/82/20/e174.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): All Clinical Neurology http://n.neurology.org/cgi/collection/all_clinical_neurology EMG http://n.neurology.org/cgi/collection/emg Neuropathic pain http://n.neurology.org/cgi/collection/neuropathic_pain Peripheral neuropathy http://n.neurology.org/cgi/collection/peripheral_neuropathy
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.neurology.org/about/about_the_journal#permissions
Reprints	Information about ordering reprints can be found online: http://n.neurology.org/subscribers/advertise

Neurology® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2014 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

