RESIDENT & FELLOW SECTION

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Teaching Neuro*Images*: Intraneural ganglion cyst of the tibial nerve

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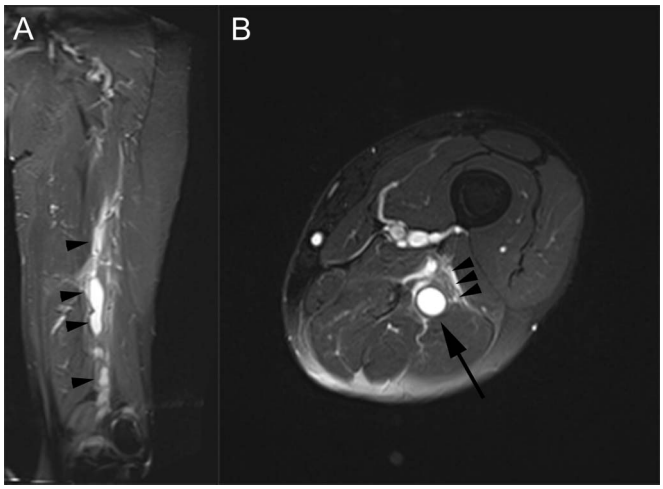
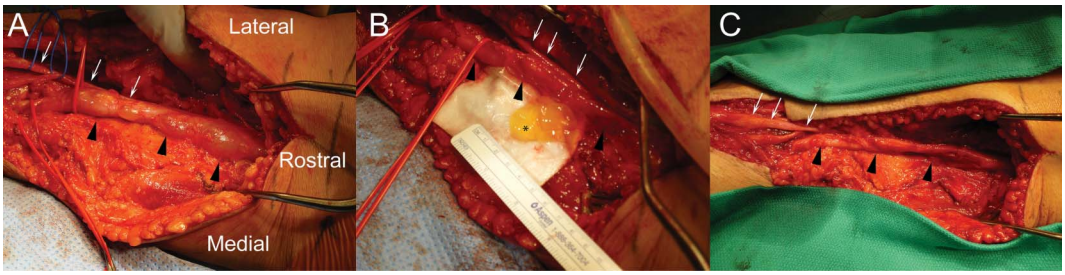
Figure 1 MRI of left femur with intraneural ganglion cyst involving tibial nerve



(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]

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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.

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DISCLOSURE

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