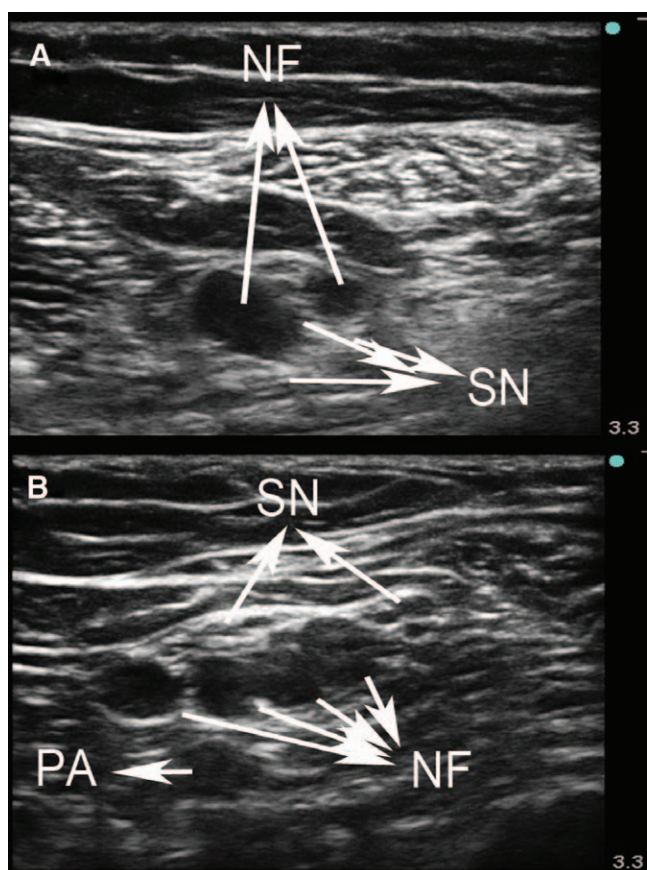


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## The Value of Ultrasound in the Safe Care of a Patient with Neurofibromatosis

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**W**E describe the utility of ultrasound in facilitating the safe care of a 13-yr-old patient with pseudoarthrosis of her distal tibia secondary to neurofibromatosis. Tibial osteotomy and application of an internal rod and external fixator were planned. Continuous sciatic nerve (SN) blockade using a perineural catheter was planned to supplement general anesthesia and provide postoperative analgesia. The patient was positioned for posterior approach to the SN using ultrasound guidance after induction of general anesthesia and endotracheal intubation.

Ultrasonographic images obtained of the SN from the subgluteal region (fig. A) to the popliteal fossa (fig. B) demonstrated multiple solid, hypoechoic structures consistent with neurofibromas (NF) as the SN divided into the tibial and common peroneal nerves.<sup>1</sup> The popliteal artery (PA) was confirmed by Doppler.

Ultrasound-guided SN block has been described in the presence of NF by targeting tumor-free portions of the nerve.<sup>2,3</sup> We, however, were unable to visualize portions of the SN free of NF. There is no evidence to support the presence of NF as contraindication to nerve block techniques, but perineural injection of local anesthetic in the presence of NF has theoretical risks. Ineffective spread of anesthetic and failed block, hemorrhage into the NF causing or worsening nerve compression, or spreading neurofibromatous cells through the needle's track are concerns. A decision was made to abort the block and administer intravenous narcotics for postoperative analgesia.

### References

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