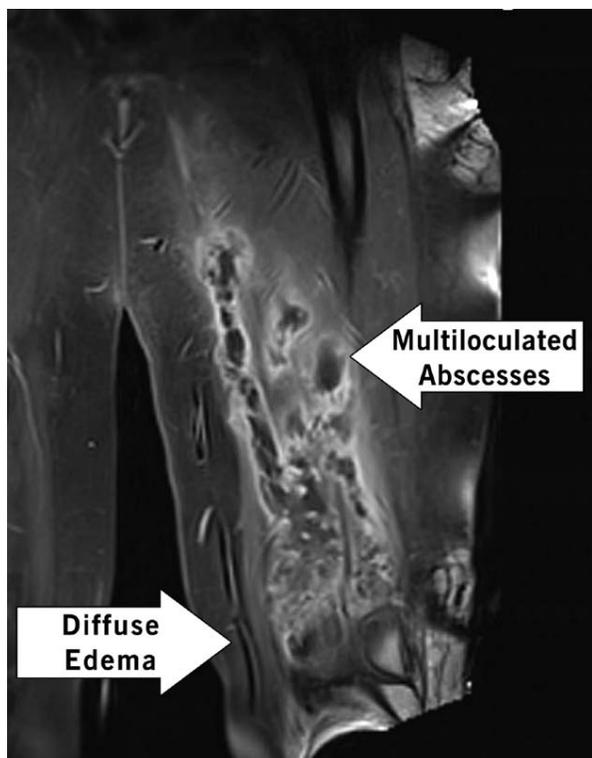


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Images in Anesthesiology: Severe Posterior Thigh Abscess as a Complication of Popliteal Sciatic Nerve Catheter

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ANONDIABETIC, 55-yr-old female with a body mass index of 31 underwent a left trimalleolar and distal tibial fracture repair under general anesthesia. A popliteal sciatic nerve catheter was sterilely placed preoperatively after hand wash using ultrasound and nerve stimulation. The procedure and surgery were uneventful. On postoperative day 4, fever and pain at the catheter site prompted removal, and a detailed fever workup was performed. No superficial signs of infection were noted on daily pain rounds until this time. Despite removal, fever and pain persisted, and a magnetic resonance image of the thigh was obtained. The image shows extensive multiloculated fluid collections within the posterior compartment of the left thigh, involving the entire hamstring musculature, extending from the proximal femoral shaft to the distal femur and surrounding diffuse soft tissue and musculature edema. Culture results showed *Staphylococcus aureus*. This resulted in a radical debridement of the entire hamstring apparatus with several wound vacuum dressing changes and long-term antibiotics.

Infection rate of popliteal sciatic nerve catheters is estimated at 0.25%.¹ Peripheral nerve catheter-related infection may be related to contamination of the infusate,² duration of the catheter placement more than 48 h, male sex, absence of antibiotics perioperatively, postoperative intensive care unit monitoring, and anesthesiologists' inexperience.³ Poor pain control may be an early sign of a brewing infection because of pH changes in the

catheter milieu which may reduce local anesthetic efficacy leading to removal of the catheter. The benefit of keeping a catheter for prolonged periods should clearly outweigh the risk of serious infection.

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References

- Compère V, Rey N, Baert O, Ouennich A, Fourdrinier V, Roussignol X, Beccari R, Dureuil B: Major complications after 400 continuous popliteal sciatic nerve blocks for post-operative analgesia. *Acta Anaesthesiol Scand* 2009; 53:339-45
- Head S, Enneking FK: Infusate contamination in regional anesthesia: What every anesthesiologist should know. *Anesth Analg* 2008; 107:1412-8
- Capdevila X, Pirat P, Bringuier S, Gaertner E, Singelyn F, Bernard N, Choquet O, Bouaziz H, Bonnet F, French Study Group on Continuous Peripheral Nerve Blocks: Continuous peripheral nerve blocks in hospital wards after orthopedic surgery: A multicenter prospective analysis of the quality of postoperative analgesia and complications in 1,416 patients. *ANESTHESIOLOGY* 2005; 103:1035-45

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