

A New Lateral Combined Femoral-Sciatic Nerve Approach via a Single Skin Puncture

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The Editor

Lower limb anesthesia requires the combination of femoral and sciatic blocks. The anatomical trajectories of both nerves require two puncture sites to perform the block. Padin and colleagues [1] described the femoral-sciatic blockade in the supine position with only one puncture site. Later, this technique was compared with the finding that unilateral spinal anesthesia is technically easier to perform, which may represent an alternative for when you want to avoid neuraxial blockade [2].

With the patient supine, the lower limb in neutral position with a thin pillow under the hip, the landmarks were drawn (Figure 1). The cutaneous projection of greater trochanter was performed and the entry point of the needle was marked 6 cm caudal.

Local anesthesia in both paths was performed with 1% lidocaine. A single 150 mm insulated needle Stimuplex® A (B. Braun Melsungen AG, Germany) connected to an HNS 12 Stimuplex® (B. Braun Melsungen AG, Germany) stimulator (0.1 msec stimulus at 2 Hz frequency with a initial current intensity of 0.5 mA) was inserted at point of the needle.

The needle was advanced medially from the lateral thigh, about 6 cm from apex of the greater tuberosity, cranial and anterior until movement of the quadriceps and patella related to the femoral stimulation; then, 15 mL of the anesthetic solution (2% lidocaine=20 mL + 0.5% bupivacaine=20 mL + bidistilled water=10 mL + epinephrine 1:300.000) was injected. Afterwards, the needle was removed until the subcutaneous tissue and redirected posteriorly and caudally to reach the sciatic nerve, identified by stimulation of the common fibular nerve or tibial nerve, confirmed by movements of the foot; then, 35 mL the same anesthetic solution was injected.

Approximately 3 mL of contrast (iohexol with 300 mg.mL⁻¹, Ominipaque®) were injected in each nerve to study the dispersion of the local anesthetic, and an anteroposterior X-ray was performed within one minute (Figure 2).

The combined femoral-sciatic nerve block in the recumbent position, from a lateral approach via a single skin puncture site with the aid of a peripheral nerve stimulator is an easy technique and it can be an alternative for the unilateral surgery in the lower limbs when neuraxial anesthesia is not indicated.

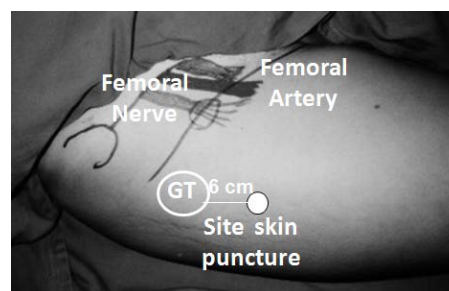


Figure 1: Diagram for insertion of the needle.

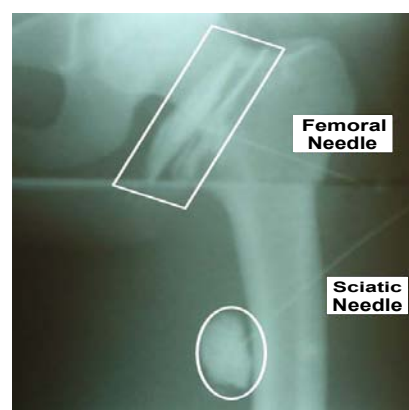


Figure 2: Contrast in the femoral and sciatic nerves.

References

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