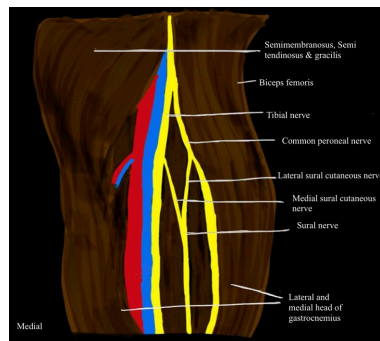


Sciatic Nerve block at the popliteal fossa is useful for lower extremity surgery of the lower leg, ankle and foot. The sciatic nerve runs in the posterior thigh and bifurcates at the level of popliteal fossa into the tibial nerve (TN) and common peroneal nerve (CPN), the block targets the SN branches at the popliteal fossa.

Anatomy

- Sciatic nerve originates from L4-S3 anterior rami of the sacral plexus and travels posteriorly through the thigh, where it bifurcates at the popliteal fossa to give rise to the TN medially and CPN laterally.

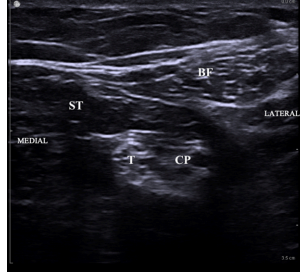


Coverage

- Cutaneous area involves dermatomes L4-S3 and most lower extremity except the medial aspect, which is covered by the saphenous.

Technique

- It can approach supine, lateral or prone position.
- Position the transducer in a transverse orientation at the popliteal fossa .
- At this level, identify the popliteal artery and confirm with color flow or power doppler.
- Once the artery is visualized, locate the hyperechoic nerves superficially. Now trace the sciatic nerve proximally to visualize where TN and CPN come together to form sciatic nerve.
- Needle is introduced lateral to probe in an in-plane approach. Needle entry should be above biceps femoris tendon to minimize patient discomfort.
- The needle is directed towards perineural sheath and enters with the aim to deposit LA and observe its spread around the TN and CPN.
- About 20ml of 0.5% ropivacaine or 0.25% bupivacaine is used routinely.



- Care should be given to watch for swelling of individuals nerves, paresthesia or high opening pressure which may indicate neural injection.

Updated on 3/1/24

Reference

- Pai P, Jinadu S. How I do it: ultrasound-guided sciatic nerve block at the popliteal fossa. ASRA Pain Medicine News 2022;47. <https://doi.org/10.52211/asra020122.003>.