

USG in knee blocks

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Knee region is supplied by multiple n. derived from lumbar and sacral plexus, it's block is required in many surgical procedure as well as acute and chronic knee pain. N. supply is both cutaneous and genicular innervation.

For surgical anesthesia we choose to block the major n.s from proximal approach and for pain management we perform the block at knee region:

Sonoanatomy: There are both bony and vascular landmark for each single n. 1. Suprolateral and supromedial n. is identified at metaphysis of femur and accompanied by corresponding arteries 2. Inferolateral n. is found at the site of femur metaphysis with corresponding arteries 3. Inferomedial n. is found at area of tibial tuberosity with its arteries 4. Anterior genicular n. are found below the quadriceps tendon and above the articular cartilage at distal end of femur

Techniques: With patient in supine position and after securing IV line and monitoring devices, skin disinfectant is applied, high frequency ultrasound probe is used and 22-gauge 50mm short beveled needle is passed in-plane from lateral to medial to each target n. aided by anatomical landmarks.

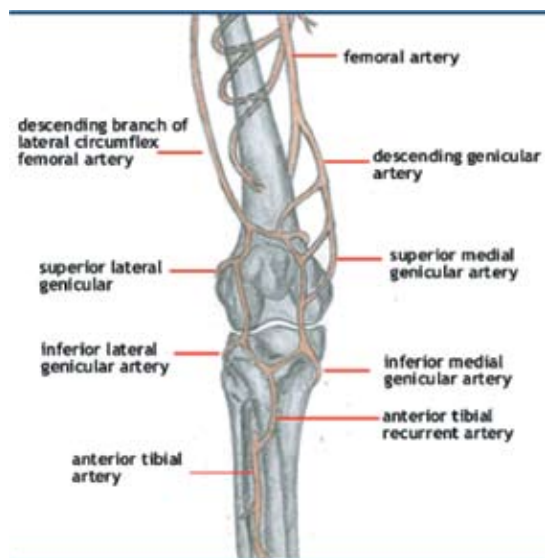


Figure 1: Arterial supply of knee joint

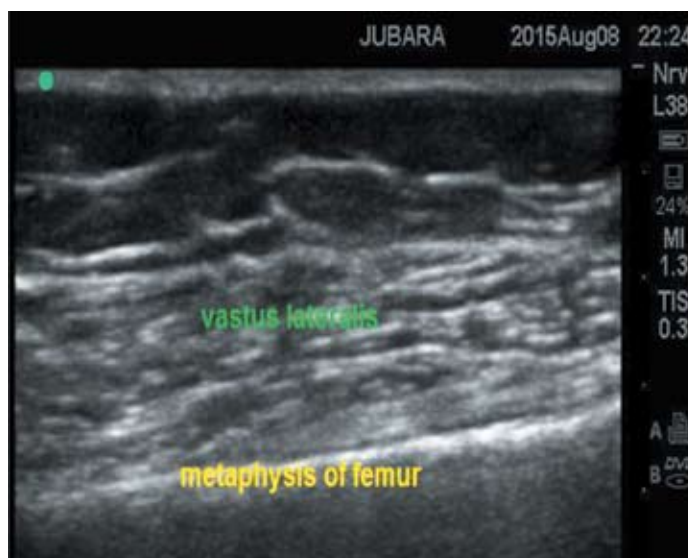


Figure 2



Figure 3



Figure 4