

Median nerve block

The median nerve at the cubital fossa is located medial to the brachial artery. It leaves the cubital fossa through the floor angling sharply deep to run under the bulk of flexor muscles in the forearm. It is rounded in its course with the artery however at the elbow crease it is usually found deep to the artery and widened into a ribbon. Starting with the probe transversely in the cubital fossa the brachial artery is identified in short axis.

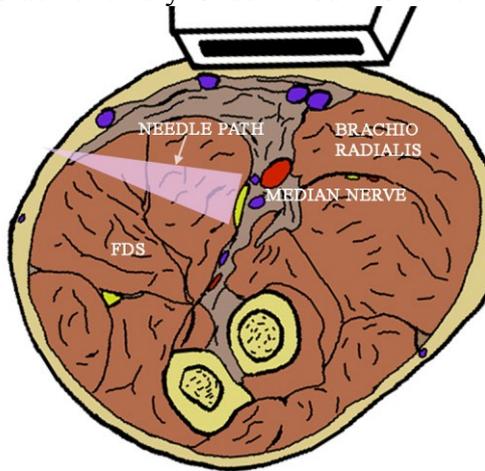


Fig 2.41 Diagram showing the medial perpendicular approach to the median nerve at the elbow

The nerve is found to the medial side and deep to artery applied to the belly of flexor digitorum superficialis. There may be an artery seen in the same plane. The median nerve can be followed distally under the flexor muscles, if followed proximally it joins the artery. The nerve can be blocked either in the cubital fossa or followed proximally into the arm and blocked from the medial side.



Fig 2.42 Needle and probe position for median nerve block in cubital fossa, perpendicular, in plane approach

Using a 50 mm needle and 5 to 7 ml of 0.75% to 1% ropivacaine or 2% lignocaine with adrenaline the block in the cubital fossa is done from either medial or lateral sides taking care to avoid the artery if approaching laterally. The thinness of the nerve at this level contributes to the rapid onset of this block. Local anaesthetic usually spreads widely in the fascial plane through which the nerve runs

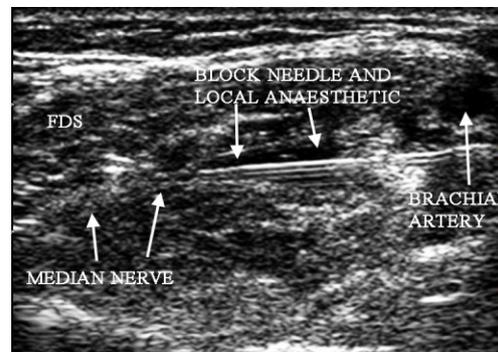


Fig 2.43 Sonogram of median nerve block in cubital fossa after injection of some local anaesthetic. Lateral in plane perpendicular approach.

Ultrasound Guided Procedures in Anaesthesia

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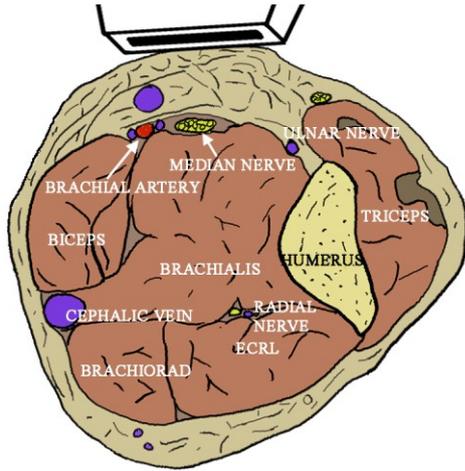


Fig 2.44 Anatomy of median nerve in the arm positioned for block

perpendicular approach from the medial side is feasible as is an out of plane approach



Fig 2.47 Needle and probe position for median nerve block above the elbow

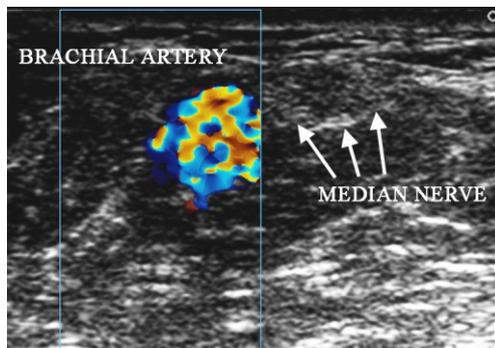


Fig 2.45 Median nerve located in relation to the brachial artery in the arm

In describing this ultrasound guided procedure it has been assumed that attention has been paid to appropriate location, personnel, sterility, preparation, doses and technique necessary for the safe conduct of major nerve blocks and other procedures. These medical procedures should not be attempted without suitable qualifications

The nerve is subcutaneous and in relation to the brachial artery in the distal arm proximal to the cubital fossa.

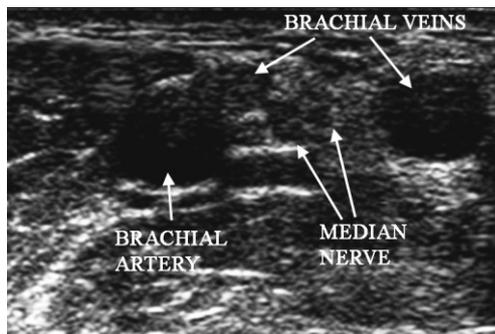


Fig 2.46 Fasciculated median nerve in the distal arm showing several large related veins (easily compressed by probe pressure).

An apparent structure may be seen lateral to the artery in the arm however the nerve is always found medial to the artery. A