

VETERINARY ANATOMY  
UNIT - 2  
SITE FOR  
RADIAL, MEDIAN, ULNAR AND  
VOLAR NERVE BLOCKS



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## Radial nerve block



- ❧ Indications:- fracture repair, dislocation and surgery below elbow joints.
- ❧ Anatomy:- the radial nerve supplies to the dorsal aspect of the forelimb and manus except in horses where it stops at the carpus.
- ❧ Technique:- the nerve is blocked at a point where it spirals around the humerus from medial to the lateral aspect.

Conti...



☞ The site of injection is midway between the olecranon process and the acromion process that is upper third of the humerus on the posterior aspect. Inject 2 to 4ml of local anesthetic using 20 G 3-5cm long needle. The effect is seen within 10 mins. And lasts for 2hrs

## Median Nerve Block



- The median nerve passes below the elbow beneath the pronator teres
- It then runs down along the forearm between the radius and flexor carpi radialis muscle
- Median nerve supplies pronator teres, flexor carpi radialis, superficial digital flexor, humeral and radial heads of deep digital flexor muscles
- Site : Below the medial tuberosity of the radius at the groove between caudal border of the radius and flexor carpi radialis muscle

## Technique



- ❧ The site of the injection is the medial aspect of the elbow joint just anterior to the medial epicondyle of the humerus.
- ❧ The nerve is covered by skin and fascia only.
- ❧ Inject 5-10 ml of the local anaesthetic to cause the median nerve block.

## Ulnar nerve block



- At the lower one third of the forearm this nerve lies relatively superficial between the flexor carpi ulnaris and ulnaris lateralis muscle
- Ulnar nerve supplies the flexor carpi ulnaris, superficial digital flexor and ulnar head of deep digital flexor
- Site : A few inches above accessory carpal

## Technique



- ❧ The site of the injection is about 7-10cm above the accessory carpal bone on the volar (posterior) aspect of the limb in the groove between the flexor carpi ulnaris and lateralis muscle.
- ❧ The needle is inserted about 0.5-1.5 cm deep and 10 ml of the local anesthetic is administered to achieve the block.

# VOLAR NERVE BLOCK



- The volar or metacarpal nerves are terminal branches of the median nerve
- The lateral volar nerve merges with the deep branch of the ulnar nerve
- The medial volar nerve is accompanied by the medial volar metacarpal artery, the lateral volar nerve is accompanied by the lateral volar metacarpal artery

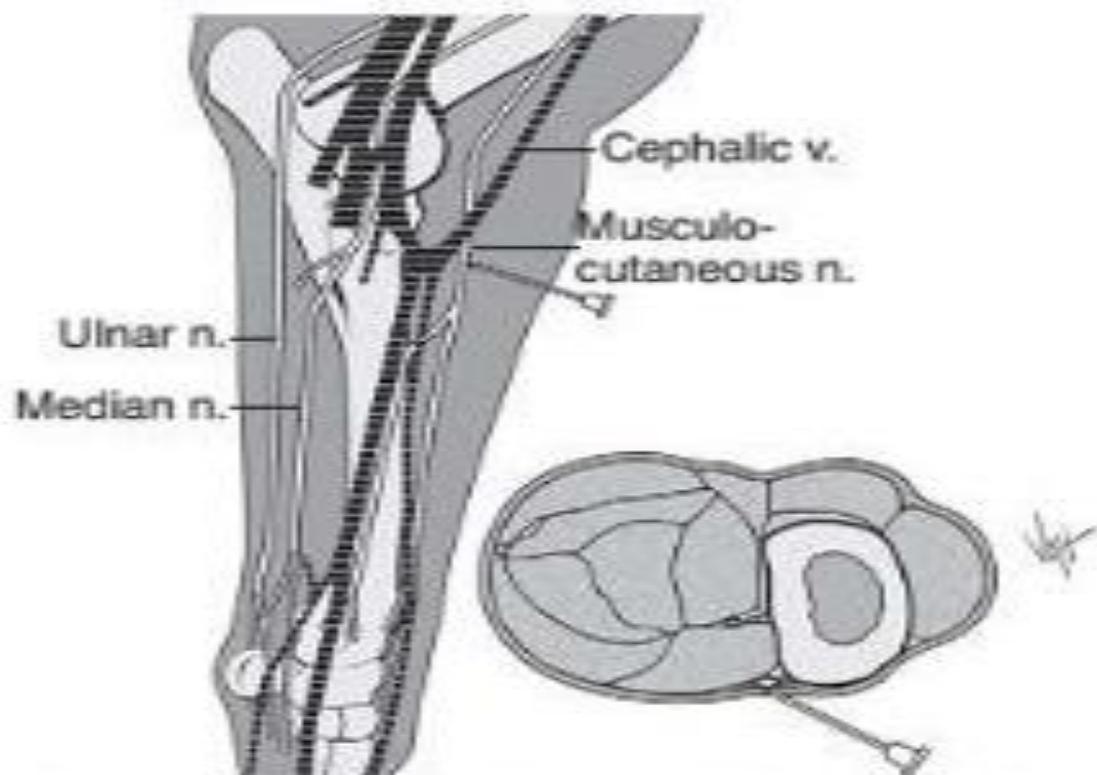
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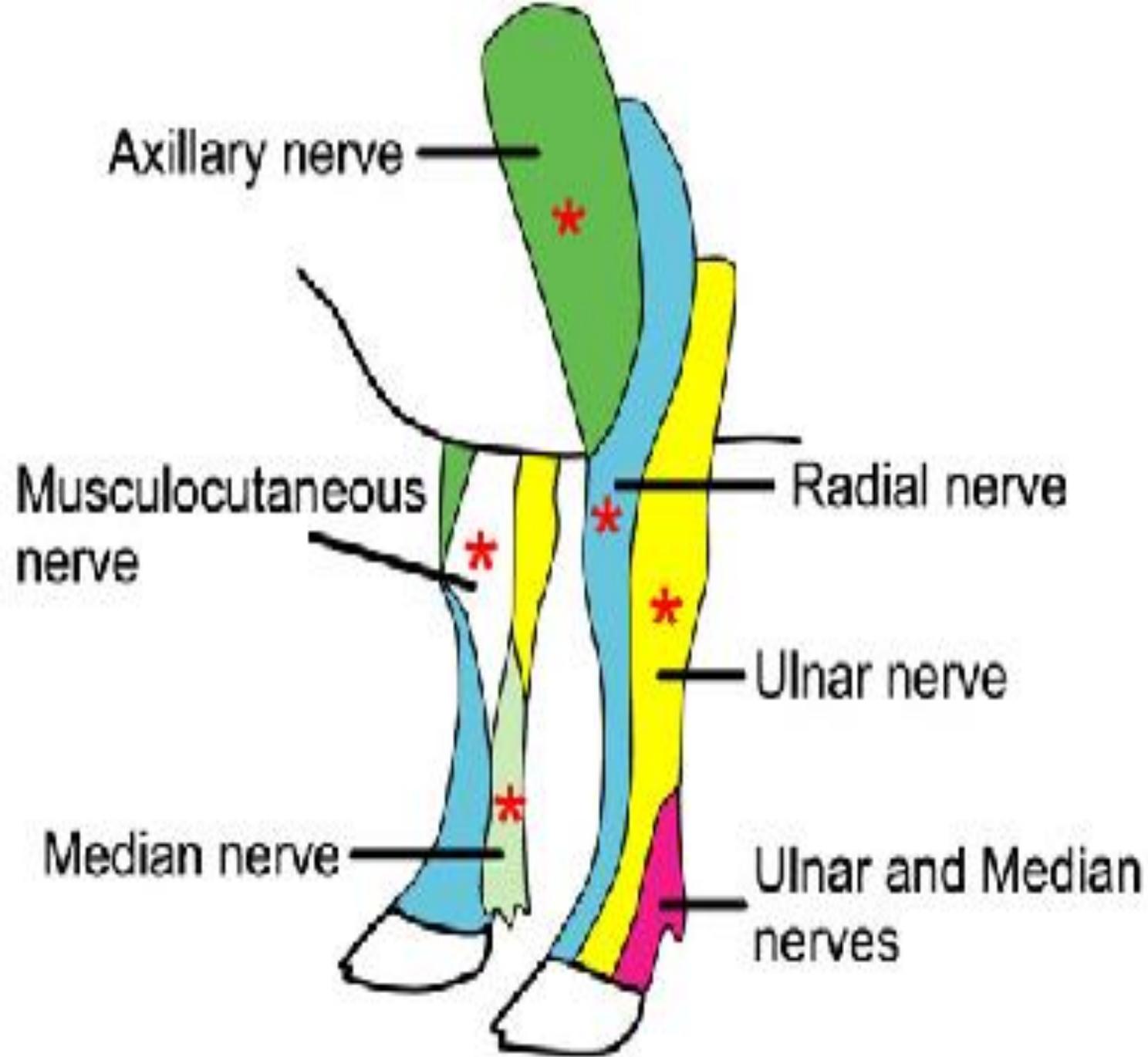
- Each volar metacarpal nerve continues as respective volar abaxial digital nerve where as volar common digital nerve is formed by union of middle branches of median nerve

### **Site**

- *High volar block* : 5 to 7 cm above the fetlock in the depression between suspensory ligament and deep flexor tendon both on medial and lateral aspects
- *Low volar block* : Midway between the fetlock and coronet in between deep digital flexor and superficial digital flexor both on medial and lateral aspects



**FIG. 6-6.** Needle placement for median nerve block: medial and cross-sectional views. Stippled markings indicate desensitized area after median nerve block of the left forelimb. *D*, Dorsal view; *L*, lateral view; *M*, medial view; *P*, palmar view.



Thanks