

US PERIPHERAL NERVE BLOCKS FOR PRP FENESTRATION IN CHRONIC TENDINOPATHIES: A PRACTICAL APPROACH

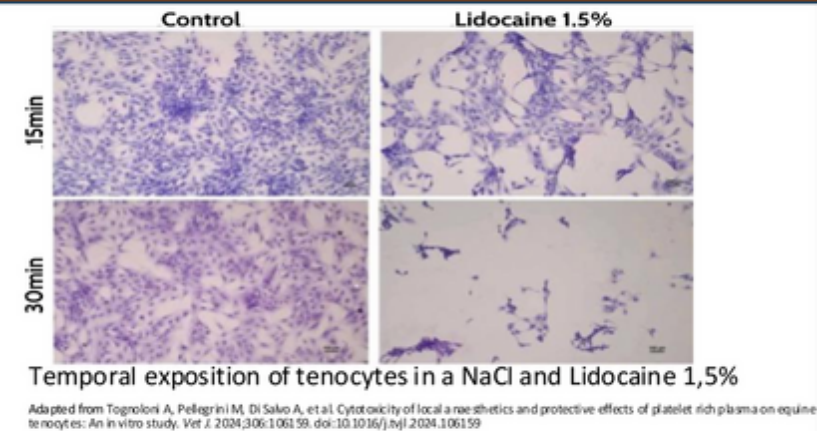
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INTRODUCTION

Ultrasound-guided percutaneous needle fenestration (UPNF) is widely used for tendinopathy, alone or with orthobiologics, providing lasting pain and function improvement with a good safety profile. [1-3] However, it is often painful, usually requiring pre-procedural analgesia.

WHY DO WE NEED PERIPHERAL NERVE BLOCKS?

Although peritendinous local anesthetics can provide effective pain relief, they have been shown to harm tenocytes—inducing cell death and potentially compromising the biological efficacy of orthobiologic treatments, which may lead to suboptimal outcomes. [4-9]



TARGET NERVES BY SITE OF TENDINOPATHY

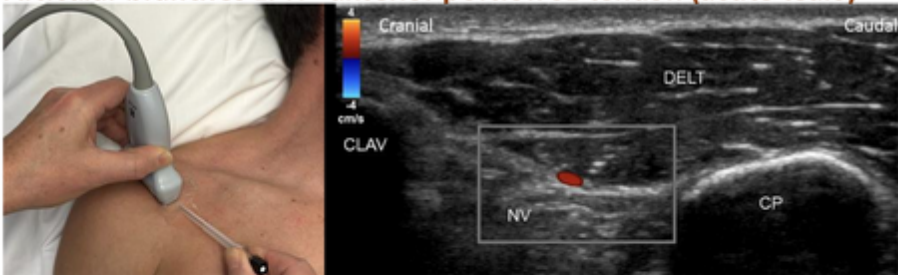
SUPRASPINATUS/ INFRASPINATUS TENDINOPATHY

Suprascapular nerve



Suprascapular notch (SS Notch) immediately posterior to the transverse scapular ligament, containing the suprascapular nerve (SSN) and artery (SSA).

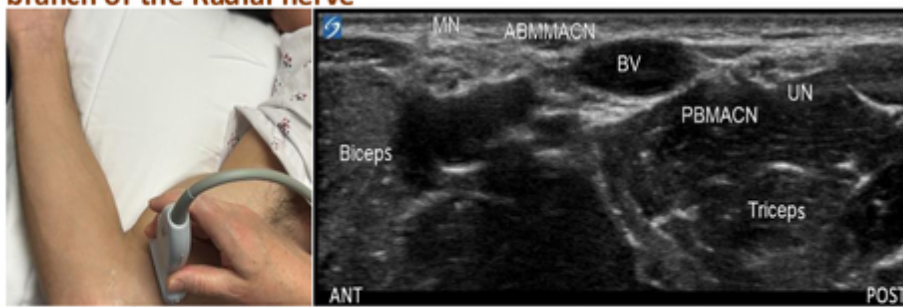
Articular branches LPN– anterior portion SE tendon (acute tears)^{10,11}



Neurovascular bundle (NV), comprising the acromial branch of the thoracoacromial artery and the articular branch of the lateral pectoral nerve, deep to the deltoid (DELT). CP - Coracoid process; CLAV - Clavicle.

COMMON FLEXOR TENDINOPATHY

Medial antebrachial cutaneous nerve, Ulnar nerve, Ulnar collateral branch of the Radial nerve¹⁶⁻²²



Ulnar nerve (UN) next to the posterior branch of the medial antebrachial cutaneous nerve (PBMACN), posterior to the basilary vein (BV). ABMACN – Anterior branch of the medial antebrachial cutaneous nerve; MN – Median nerve

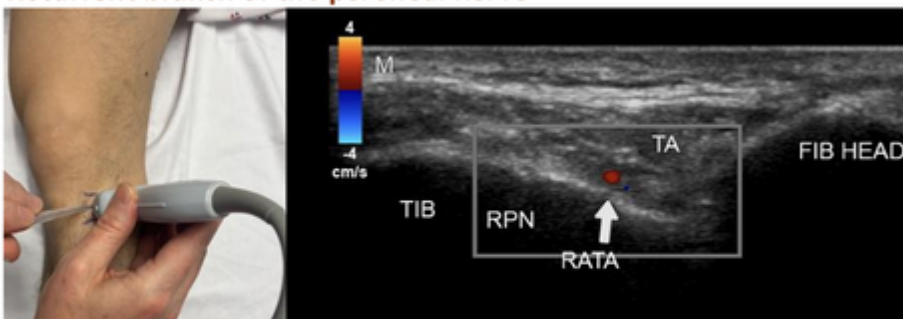
PATELLAR TENDINOPATHY / JUMPER'S KNEE

Infrapatellar branch of the saphenous nerve²⁷⁻²⁹



Infrapatellar branch saphenous nerve (IPBSN) between the sartorius (SART) and vastus medialis (VM)

Recurrent branch of the peroneal nerve²⁸



Recurrent anterior tibial artery (RATA) below the tibialis anterior (TA), anterior to the tibia (TIB) and below the Gerdy tubercle. The recurrent peroneal nerve (RPN) alongside the artery. FIB HEAD – fibular head

COMMON EXTENSOR TENDINOPATHY

Radial nerve prior to the branching of the PACN¹²⁻¹⁵

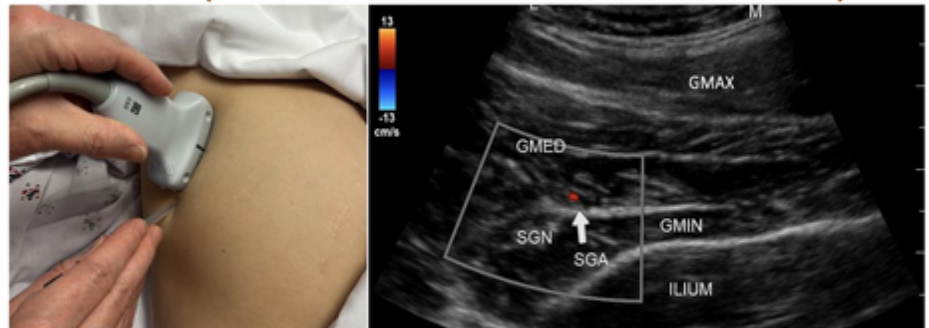


Radial nerve (Radial N) and the deep brachial artery (DBA) within the spiral groove.

GLUTEUS MEDIUS/MINIMUS TENDINOPATHY

Superior gluteal nerve^{23,24}

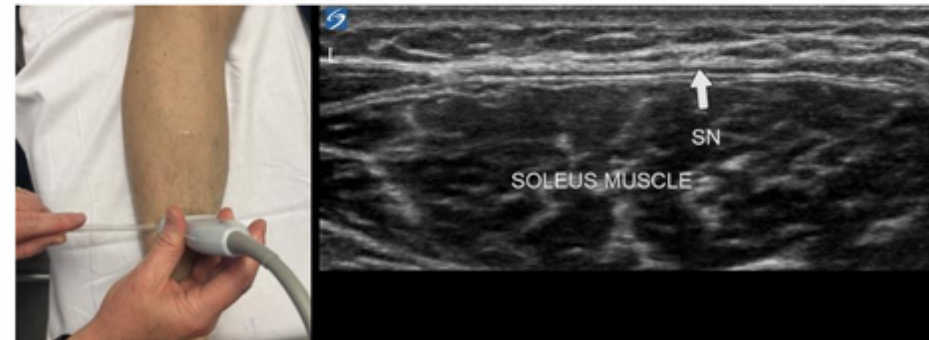
(+ Trochanteric branch of the femoral nerve^{25,26})



Superior gluteal artery (SGA) and nerve (SGN) in a fascial plane between the gluteus medius (GMED) and the gluteus minimus (GMIN) muscles. GMAX – gluteus maximus muscle.

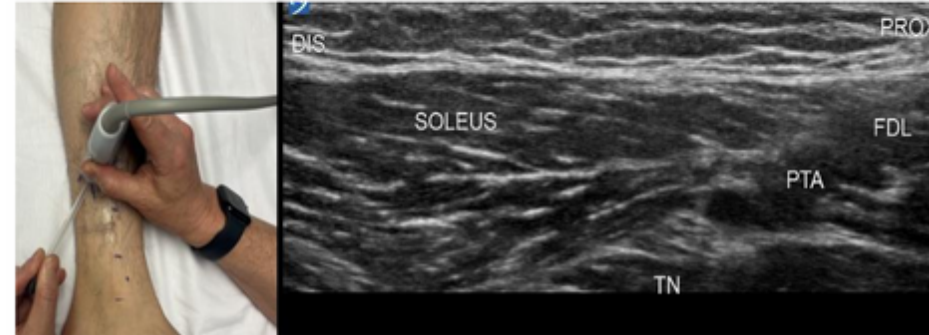
ACHILLES TENDINOPATHY

Sural nerve^{30,31}



Sural nerve (SN) superficially to the soleus muscle.

Tibial nerve³²



Tibial nerve (TN) adjacent to the posterior tibial artery (PTA), deep to the soleus and flexor digitorum longus (FDL) muscles.

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REFERENCES

