

SUPRASCAPULAR NERVE BLOCK FOR POSTOPERATIVE PAIN MANAGEMENT IN A PATIENT WITH PERSISTENT DYSPNEA POST-COVID

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INTRODUCTION

- 64-year-old male
- Left rotator cuff repair following left subscapularis and supraspinatus tear, labral complex injury, and subacromial impingement

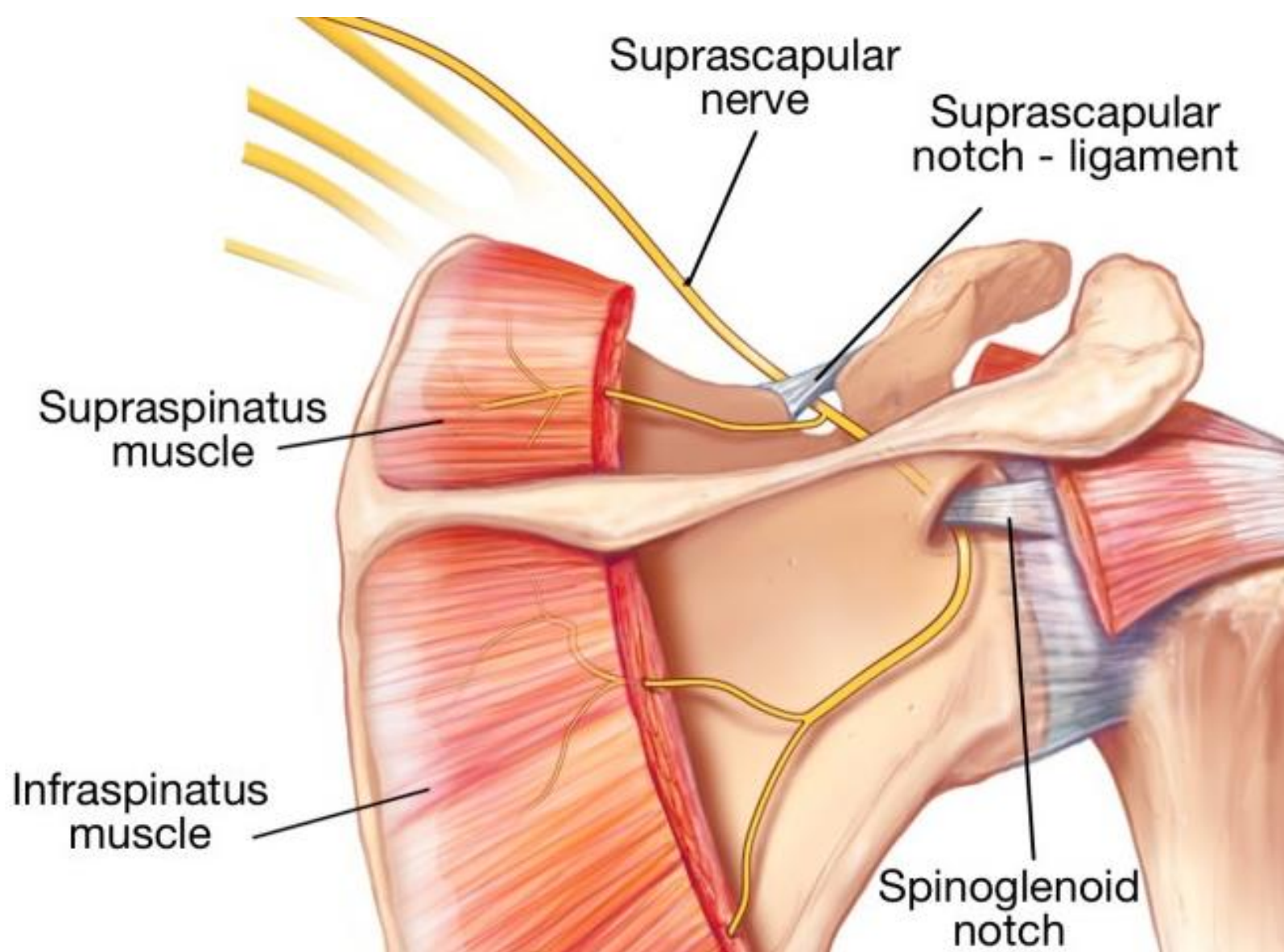
- Previous uncomplicated right-sided rotator cuff repair at an outside hospital

Past Medical History:

- COVID infection in 2021, complicated by persistent post-COVID dyspnea requiring BiPAP and oxygen supplementation for 3 months
- Cardiovascular evaluation was normal
- Pulmonary evaluation showed normal PFTs, and chest CT showed persistent peripheral subpleural ground glass and reticular opacities, potentially related to COVID scarring
- Mild coronary artery disease, hyperlipidemia, essential tremor and bilateral sensorineural hearing loss

FIGURE 1

Anatomical drawing of the suprascapular nerve

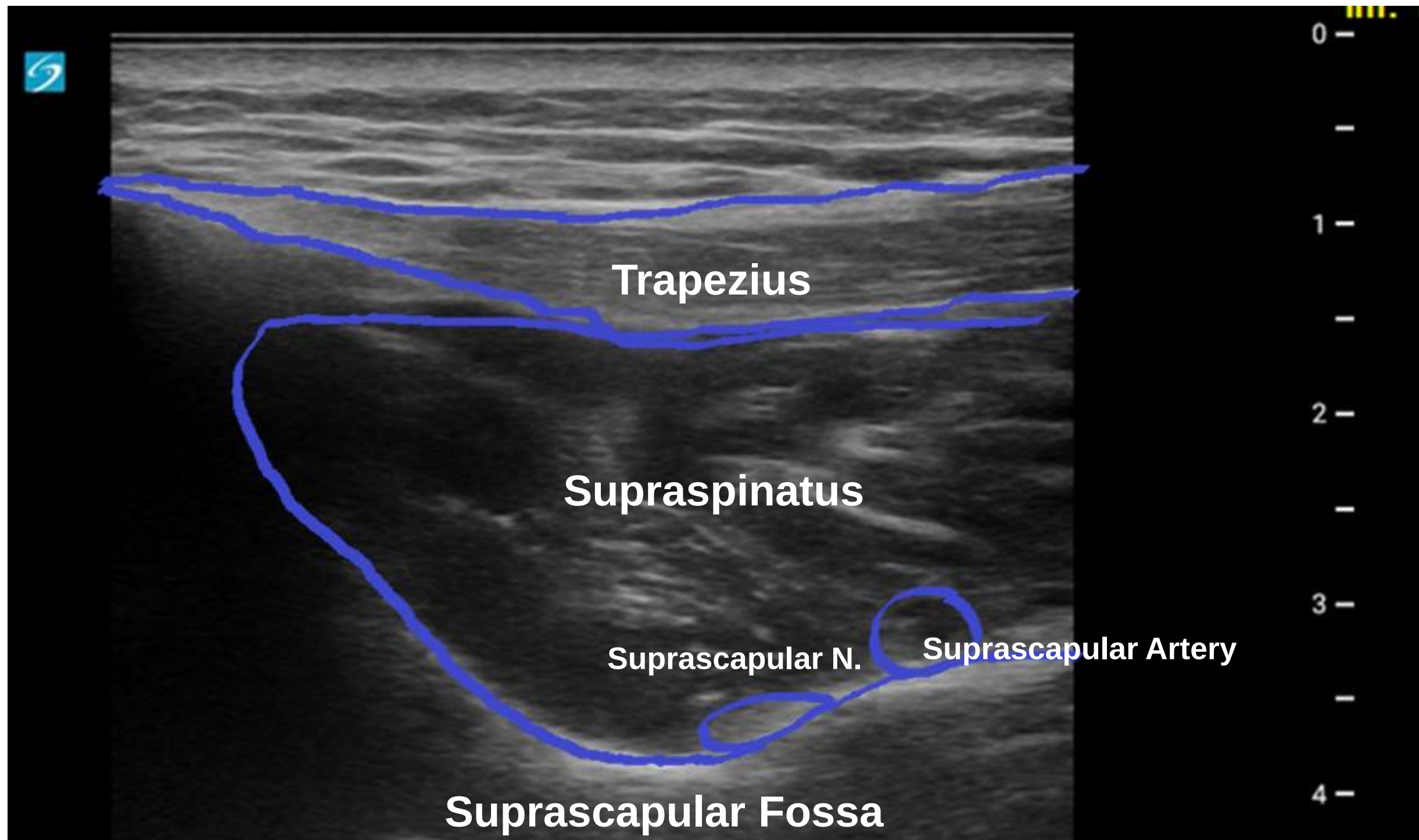


Taken from Shoulder&Elbow

PERIOPERATIVE PLAN

- Anesthesiologist discussed anticipated phrenic nerve impairment with interscalene block; patient hesitant to proceed and opted for a suprascapular and isolated axillary nerve block
- He had an uncomplicated procedure and was discharged home
- On postoperative day 3, he reached out to the surgical team for persistent numbness without motor weakness of his left 2nd, 3rd, and 4th digits
- Surgical team thought this could be related to nerve blockade, however, his symptoms were not consistent with expected sensory blockade
- Symptoms had resolved on the 10th postoperative at follow-up appointment

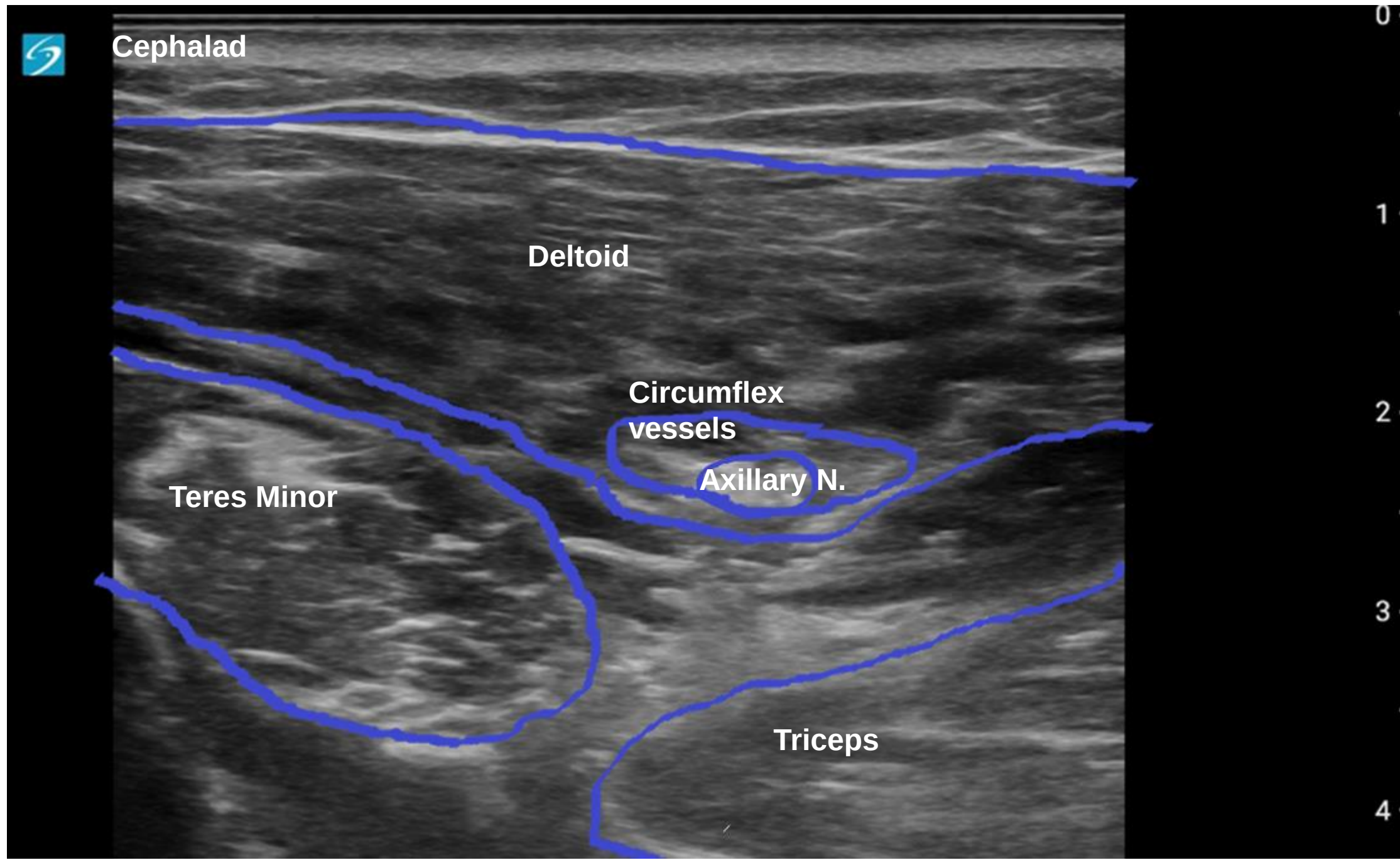
FIGURE 2 - Sonoanatomy of the dorsal approach to the suprascapular nerve block



DISCUSSION

- Suprascapular nerve: upper trunk of the brachial plexus (C5-C6).
- Motor innervation: infraspinatus (external rotation) and supraspinatus (abduction) muscles
- Sensory innervation: acromioclavicular and glenohumeral joints
- Initially utilized for chronic shoulder pain
- Alternative for patients with significant pulmonary comorbidities by avoiding phrenic nerve blockade
- Metanalysis by Hussain et al, found no significant difference after 24 hours in morphine equivalent consumption between patients with a suprascapular nerve block versus interscalene nerve block with a reduction in pulmonary complications.
- Posterior approach complication risk: pneumothorax
- Limited and conflicting evidence in the benefit of adding an axillary nerve block
- Importance of thoughtful regional anesthesia, consideration of brachial plexus alternatives, patient and surgical colleagues' education

FIGURE 3 – Isolated axillary nerve block



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