

The suprascapular nerve block can be used to guide initial treatment of hemiplegic shoulder pain

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CASE DIAGNOSIS

Hemiplegic shoulder pain in a female with post-stroke spasticity.



CASE DESCRIPTION

The patient had severe ipsilateral shoulder pain four months after her last botulinum toxin A (BoNT-A) treatment. Clinical examination revealed increased shoulder spasticity, a small glenohumeral (GH) joint subluxation and reduced range of motion (ROM) in a capsular pattern, with notably reduced passive lateral rotation. Likely causes of her pain were judged to include GH joint capsulitis and spasticity. To help decide whether to directly expand the BoNT-A protocol or to first give a GH joint corticosteroid-local anesthetic injection, we performed a suprascapular nerve block (Figure 1). After the block, passive lateral rotation was improved by 50°, and she was pain-free. The positive block was followed by a GH joint injection (Figure 2). BoNT-A was continued unchanged. The patient remained pain-free with stable shoulder lateral rotation at 3-, 6- and 10-month follow-up.

DISCUSSION

Hemiplegic shoulder pain is complex and multifactorial, and treatment should be multimodal¹. To optimize treatment of the individual patient, early evaluation of the major cause of pain and reduced ROM is useful. The suprascapular nerve block relieves pain from the GH joint, the acromioclavicular joint, the subacromial bursa and some of the shoulder ligaments². A positive block in a patient with hemiplegic shoulder pain and reduced ROM in a capsular pattern indicates high probability of significant GH joint inflammation, whereas a negative block indicates predominantly spasticity and spasticity associated pain (SAP). This may be used to guide initial treatment (Figure 3). A long-term effect of the nerve block on pain and rehabilitation has been described. However, most patients with a positive block also need a GH joint injection. Pain is a powerful spasticity trigger, hence, treating GH joint inflammation may also relieve concomitant SAP.

FIGURE 1: The suprascapular nerve block

Ultrasound-guided technique: Probe mid-spina, aimed about 45 degrees ventrally. Follow the anterior wall of the supraspinous fossa laterally until you see the suprascapular notch (at the bottom of the slope!)

Deposit local anesthesia, e.g. 5-10 ml lidocaine 1%, just above the superior transverse scapular ligament, after aspiration to avoid injecting the suprascapular vessels, that may be found both above and below the ligament.

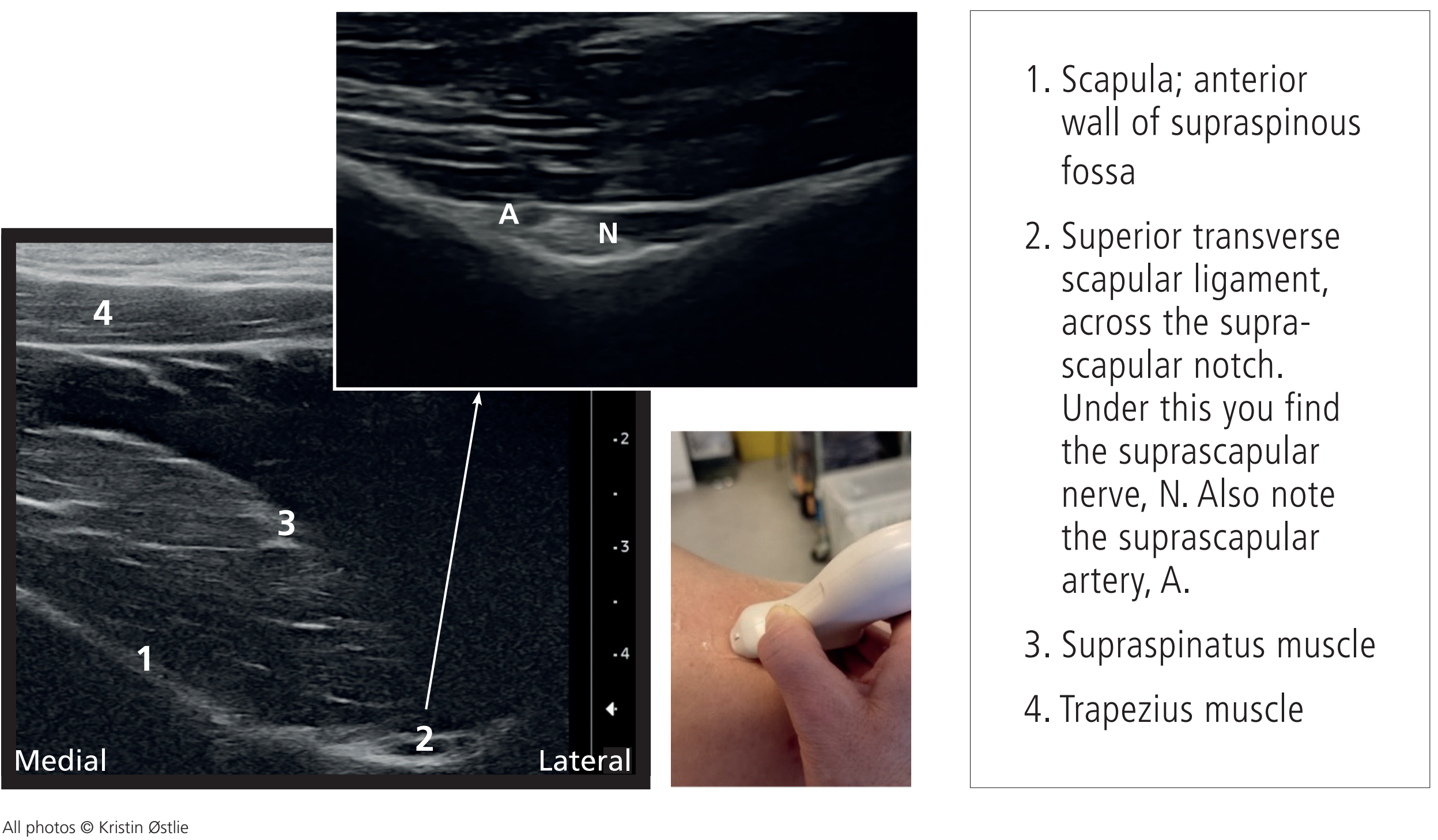
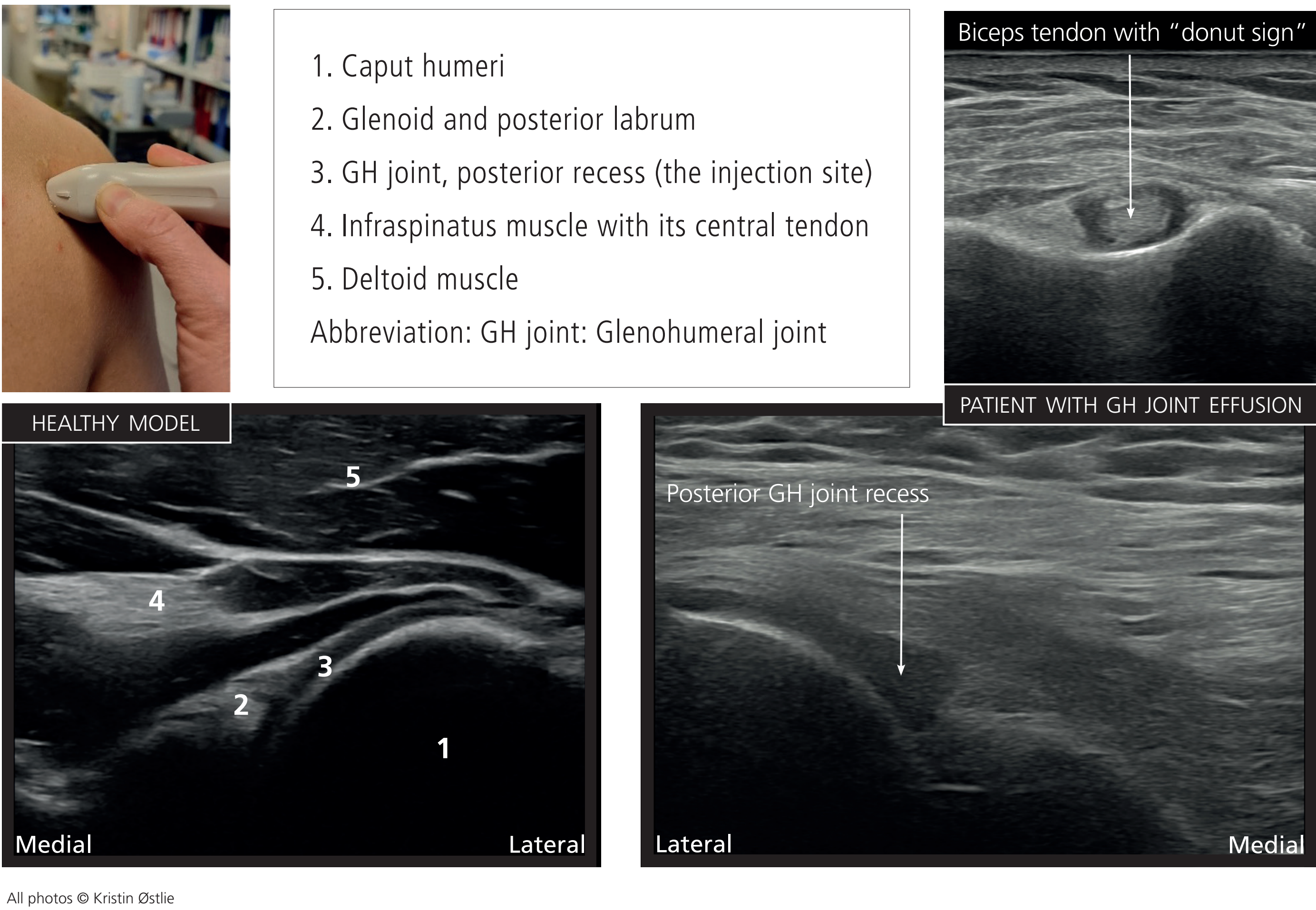


FIGURE 2: Ultrasound-guided GH joint injection

For the dorsal approach, place the probe transversally just inferior to the scapular spine and locate the posterior GH joint recess by using the landmarks shown. For the injection, use e.g. 1 ml triamcinolone 20 mg/ml + 2-3 ml lidocaine 10 mg/ml.



CONCLUSIONS

The suprascapular nerve block is easy to perform and can be used to guide initial treatment of hemiplegic shoulder pain.

References

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