

## SINDROME DA INTRAPPOLAMENTO DEL NERVO SOPRASCAPOLARE

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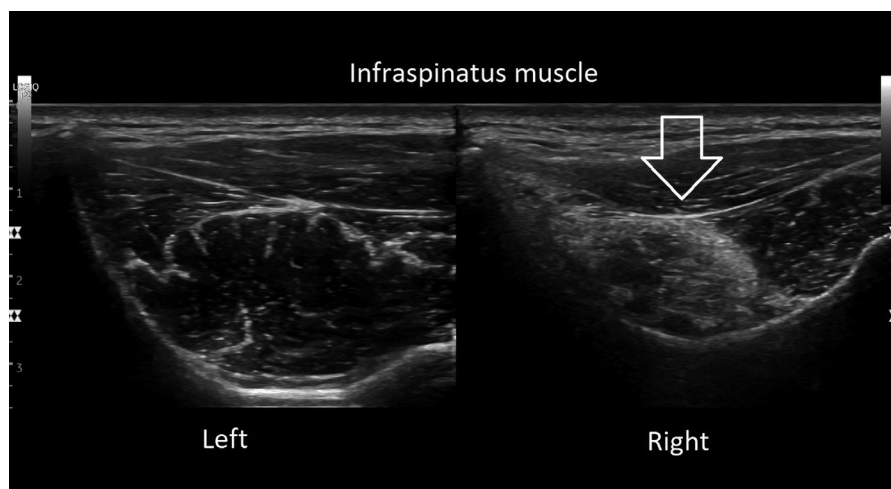
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### Riassunto

La sindrome da compressione del nervo soprascapolare è una neuropatia che provoca omalgia (dovuta alle fibre sensibili innervanti la capsula delle articolazioni gleno-omeroale e acromio-clavicolare) e paresi dei muscoli sovrascapolo e infrascapolo. Riportiamo il caso di una donna di 40 anni con una presentazione classica



**Figure 1:** Asymmetry of supraspinatus and infraspinatus muscle with right-sided atrophy.



**Figure 2:** Comparative axial ultrasound image of infraspinatus muscle in the infraspinous fossa with right-sided atrophy

sia clinica che ecografica.

### Case presentation

A 40-year-old female came to our attention because of a non-traumatic dull pain in the right scapular region, gradually evolving over the previous months. Inspection showed mild bilateral scapula alata, and significant atrophy of both supraspinatus and infraspinatus muscles on the right side. Trapezius and deltoid muscles appeared normal.

Weakness in abduction and external rotation of the right shoulder evaluated as 4 on the Medical Research Council (MRC) Scale for Muscle Strength. Electroneuromyography revealed denervation in the right supraspinatus and infraspinatus, with preserved activity in deltoid and biceps, confirming suprascapular nerve entrapment syndrome. Ultrasound revealed atrophy of the supraspinatus and infraspinatus muscles compared to the contralateral side.

### Discussion

No compression, ganglion or torsion of the suprascapular nerve in the scapular notch was seen. Magnetic resonance imaging of the shoulder and brachial plexus revealed focal thickening of the nerve at the level of the suprascapular notch. Suprascapular nerve entrapment syndrome is a neuropathy with shoulder pain (due to involvement of sensory fibers from the glenohumeral and acromioclavicular joints) and weakness of supraspinatus and infraspinatus muscles. Site of injury is usually the suprascapular notch [1-4]. In the less frequent damage at the spinoglenoid notch the sensory symptoms are absent with a painless weakness, because the

sensory fibers join the nerve more proximally. Direct trauma is the main cause of nerve injury due to entrapment at the suprascapular notch, but repetitive movements or stretching of the nerve can also represent a cause; infrequently a ganglion cyst or a tumor might mechanically damage the nerve. Treatment is directed to the cause of the neuropathy if still present at the time of diagnosis [5, 6].

The most probable cause of the neuropathy in our patient is an impingement with other muscles or repetitive movements in her job as a hairdresser. She was prescribed physical therapy and exercise for preserving range of motion and strengthening the shoulder and rotator cuff muscles.

### Suprascapular nerve entrapment syndrome

#### Abstract

Suprascapular nerve entrapment syndrome is a neuropathy with shoulder pain (due to involvement of sensory fibers from the glenohumeral and acromioclavicular joints) and weakness of supraspinatus and infraspinatus muscles. We show a 40-year-old female patient with a didactic clinical and ultrasound-imaging presentation.

**Keywords:** suprascapular nerve entrapment syndrome, shoulder neuropathy, muscle atrophy

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