Suprascapular nerve entrapment at the spinoglenoid notch due to a ganglion cyst

A 46 year old man presented with dull right shoulder pain irradiating to the right upper arm. Physical examination showed right glenohumeral instability. There was no muscle atrophy. Radiography and an echogram of the right shoulder were normal. An EMG showed fibrillation potentials and positive sharp waves in the right infraspinatus muscle; recruitment of motor units was reduced on maximal voluntary contraction. The right supraspinatus muscle was normal. T1 weighted MRI of the right shoulder (figure A) disclosed an ovoid low signal intensity mass (white arrowheads) at the spinoglenoid notch, impinging on the suprascapular artery and nerve (small black arrows) between the supraspinatus (S) and infraspinatus (I) muscles. (D=deltoid) On T2 weighted gradient echo image (figure B), the mass had a homogeneous high signal intensity consistent with a paralabral (ganglion) cyst. Coronal T1 weighted imaging (figure C) confirmed the localisation of the mass (white and black arrowheads), astride the scapular spine (white arrows), compressing the suprascapular nerve (small black arrows).

Until recently, the diagnosis of suprascapular nerve entrapment was only considered after development of marked weakness and atrophy of the supraspinatus or infraspinatus muscles.1 MRI in patients with non-specific shoulder pain now makes earlier detection possible.2 Ganglion cysts account for most lesions causing entrapment of the suprascapular nerve. Often, there is a history of weight lifting or of athletic shoulder activities. If conservative treatment fails or if there is marked muscle atrophy, surgical decompression is recommended.3

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