

# Platelet-Rich plasma vs cortisone injections for the non-surgical treatment of shoulder pain

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Introduction: to evaluate pain and functional improvement in shoulder pain with PRP injections versus cortisone.

Methods: this is a case-control study using 186 study patients who received a PRP injection and 299 control patients who received a cortisone injection for shoulder pain. Inclusion criteria were any patients having shoulder pain during the collection period already having tried NSAID's and physical therapy. Patients were evaluated clinically with pain scores and ASES scores for six months. Exclusion criteria were non-compliance with the physical therapy regimen or post-injection trauma. Results: overall pain and ASES scores improved for both study and control groups (Study: 6.0 to 2.6 & 47.7 to 72.5 and Control: 6.6 to 3.8 & 41.7 to 62.0,  $p=0.01$  &  $0.005$ ). Patients with tendonopathy and PASTA lesions all showed significant improvement with PRP over cortisone. Patients with DJD did improve with a tendency for recurrence after a few months in both groups ( $p=NS$ ). Adhesive capsulitis and full thickness rotator cuff tears improved equally with either cortisone or PRP injections ( $p=NS$ ).

Conclusions: this study shows that PRP injections are superior to cortisone injections to help decrease pain and improve functionality in shoulder pain. However, each individual diagnosis carries a different outcome with the different injections. Tendonopathy and PASTA lesions had significantly better outcomes with PRP than cortisone injections, but DJD, adhesive capsulitis, and full thickness rotator cuff tears all had similar outcomes with either injection. Further study is required to evaluate each diagnosis individually to better elucidate the best use of PRP.

# The role of the arthroscopic suprascapular nerve release in elite overhead athletes with shoulder pathology

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Introduction: suprascapular nerve (SSN) entrapment seems to be a common but often misdiagnosed condition especially in overhead athletes. This fact leads to failure of conservative and operative treatment in athletes with persistent shoulder pain and dysfunction.

Materials and methods: 21 elite overhead athletes were treated from Jan 2005 to May 2009 (16yrs to 34yrs, avg: 26yrs). We operated 3 Javelin throwers (silver Olympic Medalist, Olympic level thrower, National level thrower), 4 Weightlifters (International level), 2 Volleyball Players, 1 Kick Boxer, 1 Water Polo Player.

Results: all of them underwent an arthroscopic procedure for treating their main injury and during the procedure SSN release was performed. Postoperatively, all of the patients had complete pain relief, especially at the posterior shoulder and muscle atrophy improved. Additionally, all of them regained full ROM to their operated shoulder. Eight patients fully recovered at the preinjury level.

Discussion: in patients with advanced SSN entrapment significant muscle wasting is often irreversible. This underscores the importance of a quick and accurate diagnosis to facilitate appropriate intervention. The overhead athletes with an increased ROM of their shoulder predispose in SSN entrapment and shoulder injuries and vice-versa. Arthroscopic shoulder procedure for repairing the glenohumeral pathology with a simultaneous arthroscopic SSN release seems to be the appropriate treatment regarding to our early results.

# Painfull unstable shoulder: new considerations (from a multicentric survey about anterior instability)

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Painfull unstable shoulder is defined by bony lesions radiologically found without clinical displacement. But these lesions point out misdiagnosed dislocations. We removed such cases from a multicentric study about anterior instability to analyze epidemiology and treatment of «true » PUS.

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