



OSTEOARTHRITIS- CLINICAL ASPECTS AND TREATMENT

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Hyaluronic acid in treatment of osteoarthritis of the shoulder

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Background: Osteoarthritis of the shoulder is a complex but nonetheless debilitating condition for many active older adults. Treatment modalities are often limited to systemic NSAID or local corticosteroid infiltration.

Hyaluronic acid has been shown effective in improving outcomes in patients with osteoarthritis of the knee and hip. Whether similar improvement in patients with osteoarthritis of the shoulder is unclear.

Objectives: To determine the effectiveness of peri-articular injection of hyaluronic acid on pain and function in patients with unilateral osteoarthritis of the acromio-clavicular (AC) shoulder joint.

Methods: Twenty-two older athletes with primary unilateral osteoarthritis of the AC joint were administered 3-weekly peri-articular injections of hyaluronic acid (Suplasyn 2.0ml; 10mg/ml). No other treatment modalities were administered during the two weeks prior to and during the study. Baseline assessment of pain and function included VAS with ROM and impingement testing and WOMAC-VAS for pain, stiffness and disability. Pain and function outcomes as well as patient global satisfaction (5-point categorical scale) and adverse events were also collected at 4 weeks post-treatment. Differences were compared using ANOVA and considered significant at $p < 0.05$.

Results: Subjects included 17 males and 5 females aged 67 (6) years. All were recreational tennis players. Pain was present for 8 (10) years. Most patients had previously received systemic NSAIDs.

Significant improvement in all indices of pain and function were observed using the WOMAC and VAS response to clinical testing. Injections were highly satisfactory and few adverse events were recorded limited to pain at the injection site.

Changes in Shoulder Pain and Function With Treatment

	Baseline	8 Weeks
BMI	26.3 (3.9)	26.5 (4.1)
Rest Pain (VAS)	3.4 (1.7)	1.9 (1.5)*
ROM Pain (VAS)	4.5 (1.3)	2.0 (1.7)*
Impingement Test Pain (VAS)	4.7 (1.6)	2.7 (1.9)*
WOMAC-Pain	3.8 (1.5)	2.3 (0.8)*
WOMAC-Stiffness	4.6 (2.5)	2.9 (2.7)*
WOMAC-Disability	4.2 (2.6)	3.0 (1.9)*
Patient Global Satisfaction	4.8 (1.1)	1.7 (2.0)*

* Denotes $P < 0.05$

Conclusion: Peri-articular injection of hyaluronic acid in patients with osteoarthritis of the AC joint was highly satisfactory and produced significant improvement in measures of pain and function. Further assessment of efficacy compared to other modalities is needed.