

Efficacy of Corticosteroid Injection in Painful Stiff Shoulder – A Prospective Randomized Clinical Study

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Purpose

Painful stiff shoulder is a common but poorly explained clinical entity. Intra-articular as well as subacromial steroid injection have been reported to be effective in this entity. Aim of this prospective randomized study was to analyze the functional outcome of subacromial (S) and glenohumeral (G) steroid injection, when given at different sequence and interval, in patients with painful stiff shoulder.

Methods

From December 2007 to July 2008, 100 patients were selected for the study based on Lunberg criteria (1969). Patients were randomized into 2 groups (group SG=50 and group GS=50) depending on the sequence of injection they received. Under sonographic guidance, group SG were given subacromial injection first and after 3 weeks glenohumeral injection. In group GS, sequence of injection was reversed. Clinical responses were evaluated at 3, 7, 12 weeks and 5 months using VAS to measure pain, ASES and Range of motion.

Results

Out of 100 patients, 87 (group SG=40 and group GS=47) were available for final evaluation at 5 months. At 3 weeks, VAS score for pain, ASES and range of movements improved with both glenohumeral and subacromial injection. Statistically significant improvement in external rotation and internal rotation was noticed with glenohumeral injection. At 7, 12 weeks and 5 months both the groups showed statistically comparable clinical response.

Conclusion

In patients with painful stiffness of shoulder, glenohumeral and subacromial steroid injection showed comparable pain relief but movements improved better with glenohumeral injection. There was significant functional improvement when injections were given in combination at different interval.

Level of evidence

Level II, Therapeutic study.

Key Words: Painful Stiff Shoulder, Subacromial, Glenohumeral, Steroid injection