Intaarticular Steroid Injection With Immediate Shoulder Manipulation Arthrolysis: An Effective Way To Treat Adhesive Capsulitis

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INTRODUCTION:

Shoulder adhesive capsulitis or frozen shoulder is a debilitating disease characterized by a series of reduction of range of motion and severe pain of the glenohumeral joint. Steroid injections with serial physiotherapy has been the established way to treat this pathology. We conducted a study to look into direct manual manipulation post injection versus conventional serial physiotherapy in terms of pain reduction and functional shoulder range of movements.

METHODS:

Patients with established shoulder joint adhesive capsulitis were recruited into the study. These patients were divided into two groups. Group A received a steroid injection into the shoulder joint followed by regular physiotherapy. Patients from Group B also received the same steroid injection but were immediately subjected to manual adhesiolysis by repetitive active stretches of the shoulder joint. Group B patients also attended similar physiotherapy sessions as per Group A. A total of 62 patients were recruited for the study and were randomly assigned to either group. These patients were followed up monthly for 3 months and their range of movements and pain scores were recorded.

RESULTS:

A total of 60 patients completed the study, one patient was not compliant to physiotherapy and the other defaulted clinic follow-up. Range of movements recorded were purely passive range of movements, pain was recorded using the Wong-Baker faces pain rating scale. Data collected was tabulated and compared to their initial scores. Group B patients recorded to have better active flexion, extension and abduction at 3 months post injection ($p<0.09$). Pain reduction, and rotatory movements were comparable in both groups.

Table 1: Comparison of pain and mean range of movements at the final follow-up vs on presentation.

Parameters	Initial Scores	Group A	Group B
Shoulder pain	7/10	3/10	4/10
Mean flexion	92º	118º	142º
Mean extension	23.2º	36.2º	35.3º
Mean abduction	128º	143.6º	154.8º
Mean Int. Rotation	68.4º	71.2º	70º
Mean Ext. Rotation	76.8º	88.9º	89.2º

DISCUSSIONS:

An European paper reported immediate shoulder manipulation to be able to free adhesions within the shoulder capsule and surrounding soft tissue. This is probably due to forceful repetative movements that are performed actively with assistance of the steroid injection to control local inflammation. It is reported to be superior to regular passive movement physiotherapy sessions.

CONCLUSION:

Intraarticular steroid injection followed by immediate shoulder manipulation does improve outcomes in flexion, extension and abduction of the shoulder joints. However, due to the small sample size a larger study group is required to produce statistically significant findings.

REFERENCES:

1. Reeves B. The natural history of the Frozen Shoulder Syndrome. Scand hematol.1975(4):193-196.
2. Placzek JD, et. al(1998) Long term effectiveness of translational manipulation for adhesive capusilits. Clin Orthop Relat Res 356:181-191