

Comparison of conservative treatment with and without manual physical therapy for patients with shoulder impingement syndrome a prospective, randomized clinical trial

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Setting the scene:

The aim of this prospective, randomized clinical study was to compare the effectiveness of two physical therapy treatment approaches for impingement syndrome, either by joint and soft tissue mobilization techniques or by a self-training program.

What did they do?

Thirty patients with the diagnosis of an outlet impingement syndrome of the shoulder were treated either by strengthening the depressors of the humeral head with a guided self-training program or by joint and soft tissue mobilization techniques. Group 1 was instructed with the active range of motion (ROM), stretching and strengthening exercise program including rotator cuff muscles, rhomboids, levator scapulae and serratus anterior with an elastic band at home at least seven times a week for 10–15 min and Group 2 received a prescription for 12 sessions of joint and soft tissue mobilization techniques, ice application, stretching and strengthening exercise programs and patient education in clinic for three times per week. The VAS (10 cm) used to measure pain with functional activities and the functional assessment questionnaire (Neer) were also measured 3 months after the initiation of treatment. Subjects in both groups experienced significant decreases in pain and increases in shoulder function, but there was significantly more improvement in the manual therapy group compared to the exercise group. There were statistically differences among the groups in function. Group 2 showed significantly greater improvements in the Neer Questionnaire score and shoulder satisfaction score than Group 1. The patients treated with manual physical therapy showed improvement of symptoms including increasing strength, decreasing pain and improving function earlier than with exercise program.

Takeaway home message:

Considering the effect of manipulative therapy, one can speculate that the proprioceptive feedback transmitted by deep level of receptors. This might improve neuromuscular control in the movement patterns of the shoulder girdle and scapular motions. Manual physical therapy applied by experienced physical therapists combined with supervised exercise in a brief clinical trial might better and earlier than exercise alone for increasing strength, decreasing pain, and improving function in patients with shoulder impingement syndrome. A faster program with fewer hospital visits not only enables the patients to proceed with most of their daily activities but also decreases the costs of the treatment.