Effect of specific exercise strategy on need for surgery in patients with subacromial impingement syndrome: randomised controlled study

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Introduction

The introduction details the normal pathway of treatment of subacromial impingement syndrome (SIS), including initially conservative treatment (injection and/or physiotherapy intervention) followed by subacromial decompression if that fails. They refer to evidence that the studies comparing exercises and surgical outcomes conclude the two strategies have equivalent effects.

Aims & Objectives

To evaluate if a specific exercise strategy, targeting the rotator cuff (RC) and scapula stabilisers, improves shoulder function and pain more than unspecific exercises in patients with SIS thereby decreasing the need for arthroscopic subacromial decompression.

Methodology

PEDro ?9/11:102 patients with a greater than 6month history of shoulder pain, positive orthopaedic test and diagnosed with SIS were randomised into 2 groups. Previous conservative treatment had failed in the study population. Inclusion and exclusion criteria were detailed and appeared appropriate.

Intervention group/specific exercises: strengthening eccentric exercises for the RC and concentric/eccentric exercises for the scapula stabilisers in combination with manual mobilisations

Control group/unspecific exercises: Unspecific movement exercise for neck shoulder.

Both groups: corticosteroid injection, information on shoulder problem, ergonomic advice, 5-6 individual guided treatment sessions during 12 weeks and HEP 1-2 per day.

Results

The specific exercise group had significantly greater improvement in the primary outcome of function and pain (Constant-Murley score, DASH, VAS & EQ-5D). A significantly lower proportion of patients (20% v 63%) in the specific exercise group subsequently underwent surgery

Discussion

The discussion details the content of the specific exercise strategy, an explanation of the results and a comparison of the results with other studies.

Limitations/Considerations

One unblinded physiotherapist provided the treatment to both groups. A 3month follow up is relatively short given that the intervention had only concluded. As this cohort of patients was on an orthopaedic waiting list the shoulder pain may not be representative of less on-going symptoms as those who present to primary care. A third group with no intervention was not included.

Conclusions

A specific exercise strategy, focusing on strengthening eccentric exercises for the rotator cuff and concentric/eccentric exercises for the scapula stabilizers, is effective in reducing pain, improving shoulder function and reduces the need for surgery in patients with persistent SIS.