Early activation or a more protective regime after arthroscopic subacromial decompression -- a description of clinical changes with two different physiotherapy treatment protocols -- a prospective, randomized pilot study with a two-year follow-up.

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Objectives: To describe clinical changes with two protocols of physiotherapy following arthroscopic subacromial decompression (ASD) over two years. Reliability of Functional Index of the Shoulder was performed.

Design: A prospective, randomized pilot study, within-subject design.

Subjects: Thirty-four shoulders (13 women), mean age 46 (SD 7) years with primary shoulder impingement, listed for arthroscopic subacromial decompression.

Interventions: The traditional group (n = 20) started with active assisted range of motion exercises on the day of surgery, dynamic exercises for the rotator cuff after six weeks and strengthening exercises after eight weeks. The progressive group (n = 14) started active assisted range of motion and dynamic exercises for the rotator cuff on the day of surgery. Strengthening exercises started after six weeks.

Main measures: A clinical evaluation was made preoperatively, six weeks, three, six, 12 and 24 months after surgery. Pain, patient satisfaction, active range of motion and muscular strength were evaluated. Shoulder function was evaluated using Constant score, Hand in neck, Pour out of a pot and Functional Index of the Shoulder.

Results: Both groups showed significant improvements in pain during activity and at rest, in range of motion in extension and abduction, in strength of external rotation and in function. There were no clinical differences in changes between groups. Most patients were pain-free from six months. After two years, the majority of patients achieved >/=160( degrees ) in flexion, >/=175( degrees ) in abduction and 80( degrees ) in external rotation, the traditional achieved 67 and the progressive group 87 with Constant score.

Conclusions: Early activation using a comprehensive, well-defined and controlled physiotherapy protocol can be used safely after arthroscopic subacromial decompression.

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