

CLINICAL OVERVIEW

EFFICACY OF A STATIC PROGRESSIVE STRETCH DEVICE AS AN ADJUNCT TO PHYSICAL THERAPY IN TREATING ADHESIVE CAPSULITIS OF THE SHOULDER: A PROSPECTIVE, RANDOMIZED STUDY

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Adhesive capsulitis of the shoulder is a debilitating musculoskeletal disorder that has significant implications for activities of daily living for affected patients. Stress relaxation and static progressive stretch (SPS) are techniques used for non-surgical restoration of shoulder range of motion (ROM) for patients with adhesive capsulitis. This study prospectively compares standard physical therapy alone to a combination of physical therapy with a Joint Active Systems (JAS) SPS orthosis to evaluate differences in shoulder ROM, functional outcomes as measured by the Disabilities of the Arm, Shoulder and Hand (DASH) Questionnaire, and pain as measured with a visual analogue scale (VAS) scale.



Methods

- A prospective, randomized, controlled study was conducted
- 60 patients with adhesive capsulitis were assigned at random – 30 to a control group, 30 to a treatment group
- Both groups received three PT sessions per week for 4 weeks
- The experimental group additionally used a JAS SPS shoulder orthosis (Joint Active Systems, Effingham IL) for 4 weeks
- Abduction (active and passive), external rotation, DASH scores, and VAS pain scores were measured at 4, 12, 24 and 52 weeks follow-up

Results

- After intervention, the experimental group (PT and JAS SPS) demonstrated significantly greater improvement in all outcome measures
- Mean active abduction ROM gains: 76° vs 45° (control)
- Mean passive abduction ROM gains: 64° vs 37° (control)
- Mean external rotation ROM gains: 53° vs 30° (control)
- Mean decrease in DASH Scores: 68 vs 58 (control)
- Mean decrease in VAS pain scores 3 vs 4 (control)
- At 12 and 24 week follow-up intervals the ROM, DASH scores and VAS scores continued to prove in the experimental group but worsened in the control group
- At 52 week follow-up the differences between groups were maintained and even increased for all outcome measures, all in favor of the experimental group

Conclusions

- Significant improvements in clinical and functional outcomes were seen when a JAS SPS orthosis was used in combination with traditional therapy compared with traditional therapy alone in the treatment of adhesive capsulitis of the shoulder.
- At 12 month follow-up the experimental group had continued to improve, while the control group had relapsed.
- A JAS SPS orthosis should be considered as an adjunct to the traditional therapy regimen for all patients with shoulder adhesive capsulitis, to shorten rehabilitation times and to improve ROM and clinical outcomes.



Full Study Available

Please contact JAS at 800-879-0117 or info@jointactivesystems.com

