

Comparative Study to Find out Effects of High-grade Maitland Mobilization Technique with Scapular Mobilization versus Capsular Stretching with Hold Relax PNF Technique in the Management of Adhesive Capsulitis

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ABSTRACT

Introduction: Adhesive Capsulitis, or frozen shoulder, is characterized by pain and restricted range of motion (ROM). Physiotherapy techniques such as high-grade Maitland mobilization (HGM) with scapular mobilization and capsular stretching combined with hold relax proprioceptive neuromuscular facilitation (PNF) aim to alleviate these symptoms.

Background: Adhesive Capsulitis affects 3-5% of the general population, with higher prevalence in diabetic individuals. This condition involves thickening and fibrosis of the shoulder capsule, leading to progressive stiffness and pain.

Aim: This study compares the effectiveness of HGM with scapular mobilization and capsular stretching combined with hold relax PNF in reducing pain and improving ROM and shoulder function.

Methodology: A randomized controlled trial included 30 participants (ages 40-70) with Adhesive Capsulitis. Group A (n=15) received HGM and scapular mobilization, while Group B (n=15) underwent

capsular stretching and hold relax PNF technique. Interventions were provided five days weekly for four weeks. Outcomes were assessed using SPADI, VAS, and ROM measures for abduction, flexion, internal rotation, and external rotation.

Results: Group A demonstrated significant improvements: SPADI reduced from 65.79 ± 7.51 to 31.17 ± 5.62 , VAS decreased from 8.27 ± 0.70 to 4 ± 0.93 , and abduction improved from $73.73^\circ \pm 13.65$ to $140^\circ \pm 12.42$. In Group B, SPADI reduced from 65.84 ± 7.20 to 34.46 ± 6.11 , VAS decreased from 8.40 ± 0.74 to 4.20 ± 0.68 , and abduction improved from $69^\circ \pm 13.13$ to $118.8^\circ \pm 12.67$.

Conclusion: HGM with scapular mobilization showed superior efficacy in improving ROM and reducing pain compared to capsular stretching with hold relax PNF technique, making it a preferred approach for managing Adhesive Capsulitis.

Keywords: Adhesive Capsulitis, Joint Mobilization, Scapular Mobilization, PNF, Capsular Stretching, Range of Motion, Pain Management

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