

Effect of Therapeutic Ultrasound on Pain, Range of Motion and Functional Ability in Patients with Adhesive Capsulitis: An Experimental Study

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ABSTRACT

Introduction: Adhesive capsulitis is a condition that affects shoulder joints and causes pain, stiffness, and limited range of motion. The condition develops slowly over time and is caused by injury, surgery and medical conditions.

Aim: To assess the effect of therapeutic ultrasound on pain, range of motion and functional ability in patients with adhesive capsulitis.

Materials and Methods: Sixty-two participants between the ages of 30-60 years with low back pain following selection criteria were randomly assigned to the control and experimental group with 31 participants each. This is an experimental study with pre and posttest analysis in which the control group received conventional treatment and study group received conventional treatment with the addition of continuous therapeutic ultrasound of 1 MHz, intensity of 1.5 W/

cm² for 8 minutes. The duration of treatment for both the groups was 14 days. Pain, range of motion and functional ability were assessed using Numerical Pain Rating Scale (NPRS), goniometer and Shoulder Pain and Disability Index (SPADI) score respectively. Pre and post data was gathered and analysed.

Result: Independent t test was performed between the groups. We observed that the study group showed significant improvement in pain ($p=0.0004$), increase in range of motion with external rotation ($p=0.1876$), abduction ($p=0.0572$), internal rotation ($p=0.0095$) and decrease in SPADI score ($p=0.0001$) as compared to the control group.

Conclusion: The study provides evidence supporting the efficacy of therapeutic ultrasound as management of adhesive capsulitis.

Keywords: External rotation, Goniometer, Stiffness

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