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Effect of Therapeutic Ultrasound on Pain, Range of Motion and Functional Ability in Patients with Frozen Shoulder

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ABSTRACT

Introduction: Frozen shoulder is a condition characterized by painful, progressive, and disabling loss of active and passive glenohumeral joint range of motion in multiple planes.

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

Materials and Methods: Sixty-four participants between the ages of 40-60 years with frozen shoulder following selection criteria were randomly assigned to the control and experimental group with 32 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 W/cm^2 for 8 minutes. The duration of treatment for both the groups was 14 days. Pain, range of motion and functional ability were assessed using NPRS, goniometer and SPADI score respectively. Pre and post data was gathered and analysed.

Result: Independent t test was performed between the groups. It was observed that the study group showed significant improvement in pain (p=0.0003), range of motion with abduction (p=0.0257), flexion (p=0.0049) and external rotation (p=0.0463), decrease in SPADI scores (p=0.0007) as compared to the control group.

Conclusion: The study provides evidence supporting the efficacy of therapeutic ultrasound as management of frozen shoulder.

Keywords: Experimental study, Goniometer, Numerical pain rating scale

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