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Effectiveness of Extracorporeal Shockwave Therapy in Managing Patients with Frozen Shoulder: A Literature Review

Krishnagopal Mondal, Postgraduate Student, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, (Deemed to be University), Mullana, Ambala, Haryana, India.
Sunita Sharma, Associate Professor, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, (Deemed to be University), Mullana, Ambala, Haryana, India.
Yashica Sharma, Postgraduate Student, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, (Deemed to be University), Mullana, Ambala, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Sunita Sharma,

Associate Professor, Department of Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, (Deemed to be University), Mullana, Ambala, Haryana, India.

E-mail: drsunita.sharma@mmumullana.org

ABSTRACT

Frozen shoulder is an inflammatory condition causing pain, stiffness, and limited movement. While most recover within a year, 40% face long-term functional issues. The condition involves the joint capsule and often affects nearby structures like the coracohumeral ligament, rotator cuff tendons, and subacromial bursa. Extracorporeal Shock Wave Therapy (ESWT) is a non-surgical treatment using high-pressure sound waves to stimulate cell metabolism, improve circulation, enhance cell permeability, and break down calcium deposits.This study will conduct a thorough analysis of the current literature concerning the efficacy of ESWT in treating patients with frozen shoulder.

An initial search of electronic databases, including PubMed, Google Scholar, Scopus, and the Cochrane Library, identified 1,779 potential articles using the keywords “Frozen Shoulder,” “Adhesive Capsulitis,” “Extracorporeal Shockwave Therapy,” “Pain,” and “Range of Motion,” combined with the operators AND and OR. Only studies involving participants aged 30 years or older, diagnosed with frozen shoulder, and utilising ESWT as an intervention were considered for inclusion. After the removal of duplicate entries, a total of seven studies were deemed eligible for inclusion in this review.

The reviewed literature evaluated range of motion, pain, and disability using outcome measures like VAS, NPRS, SPADI, and DASH. Most studies showed statistically significant improvements ($p<0.05$) with ESWT compared to conventional treatment. However, one study reported no significant improvement in disability, and another found no increase in internal rotation ($p>0.05$). Additionally, several studies suggested that radial probes in ESWT may provide better therapeutic outcomes than focussed probes, emphasising the importance of probe selection in optimising treatment efficacy.

In conclusion, several studies suggest that ESWT is a promising treatment for reducing pain and disability while improving range of motion in patients with frozen shoulder. Future research should explore the effectiveness of combining ESWT with other manual therapy approaches and treatment modalities to determine its potential added benefits in this population.

Keywords: Joint capsule, Pain, Range of motion, Visual analogue scale.