



## Efficacy of Extracorporeal Shockwave Therapy in Frozen Shoulder

Babak Vahdatpour, Parisa Taheri, Abolghasem Zare Zade,<sup>1</sup> and Saeed Moradian

Department of Physical Medicine and Rehabilitation, Isfahan University of Medical Sciences, Alzahra Hospital, Isfahan, Iran

<sup>1</sup>Department of Orthopedic Surgery, Isfahan University of Medical Sciences, Alzahra Hospital, Isfahan, Iran

**Correspondence to:** Dr. Abolghasem Zare Zade, Department of Orthopedic Surgery, Isfahan University of Medical Sciences, Alzahra Hospital, Softe Avenue, Isfahan, Iran. E-mail: [zarezadeh@med.mui.ac.ir](mailto:zarezadeh@med.mui.ac.ir)

Received 2013 Sep 22; Accepted 2014 Mar 8.

Copyright : © International Journal of Preventive Medicine

This is an open-access article distributed under the terms of the Creative Commons Attribution-Noncommercial-Share Alike 3.0 Unported, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### Abstract

#### Background:

Frozen shoulder has always been considered important because of the impact on the quality-of-life and long period of illness. Therefore, the use of noninvasive and safe techniques that can speed up the healing process of the disease is important.

#### Methods:

This study was a randomized clinical trial study on patients suffering from frozen shoulder who were referred to Isfahan University of Medical Sciences hospitals in 2011 and 2012. A total of 36 patients were enrolled in the study. Eligible patients were allocated into two groups. Intervention group received extracorporeal shockwave therapy (ESWT) once a week for 4 weeks. The control group received sham shockwave therapy once a week for 4 weeks. On the follow-up period, changes in individual performance and the amount of pain and disability were assessed by the Shoulder Pain and Disability Index (SPADI) questionnaire and the range of motion changes were assessed by a goniometer. Data obtained were analyzed using SPSS software.

#### Results:

Variance analysis revealed a difference in the mean pain and disability score of the SPADI questionnaire, flexion, extension, and abduction, external rotation of involved shoulder between two groups before and after the shockwave therapy ( $P < 0.05$ ). Improvement was more satisfactory in the intervention group, but the mean internal rotation did not differ significantly in two groups ( $P > 0.05$ ).

#### Conclusions:

The use of ESWT seems to have positive effects on treatment, quicker return to daily activities, and quality-of-life improvement on frozen shoulder.

**Keywords:** Adhesive capsulitis, extracorporeal shockwave therapy, frozen shoulder, Shoulder Pain and Disability Index questionnaire

### INTRODUCTION