

The efficacy of radial extracorporeal shockwave therapy in shoulder adhesive capsulitis: a prospective, randomised, double-blind, placebo-controlled, clinical study

Ahmed Zaky Hussein Faculty of Physical Therapy, Pharos University, Alexandria, Egypt; Correspondence ahmedhussein789@hotmail.com & Robert A. Donatelli Rocky Mountain University of Health Professions, Provo, UT, USA

Pages 63-76 | Received 02 Jun 2015, Accepted 07 Nov 2015, Published online: 22 Dec 2015

Original Article

The efficacy of radial extracorporeal shockwave therapy in shoulder adhesive capsulitis: a prospective, randomised, double-blind, placebo-controlled, clinical study

Abstract

Although shoulder adhesive capsulitis is a common condition, its treatment remains controversial. No previous radial extracorporeal shockwave therapy (rESWT) use has been reported for this condition. The objective of this study was to determine the effects of rESWT compared with placebo in patients with shoulder adhesive capsulitis. This prospective, randomised, double-blind, placebo-controlled, clinical trial took place in four physical therapy departments in New York. The study included 106 patients with primary shoulder adhesive capsulitis, who were randomly assigned to either the experimental ($n = 53$) or control group ($n = 53$). All patients received instructions in a home-based exercise program before their allocated intervention. Both groups received four applications of rESWT, 1 week apart; a clasp blocked transmission of the shockwave impulses in the control group. Function was measured by the Disabilities of the Arm, Shoulder and Hand questionnaire, pain by a visual analog scale, and shoulder active and passive abduction, and passive external rotation degrees by a goniometer, at baseline, and at 4 and 24 weeks from baseline. Compared to the control group, significant clinical and statistical ($p < 0.001$) improvements in all outcome measures were seen in the experimental group at the two follow-up intervals. In conclusion, the rESWT is a safe and effective treatment in shoulder adhesive capsulitis.

Keywords: [Frozen shoulder](#), [shockwave therapy](#), [shoulder pain](#), [shoulder stiffness](#)