Research Report

Effects of Acupuncture Versus Ultrasound in Patients With Impingement Syndrome: Randomized Clinical Trial

Kajsa M Johansson, Lars E Adolfsson, and Mats OM Foldevi

Background and Purpose. There is no definitive evidence for the efficacy of the physical therapy interventions used for patients with impingement syndrome. The purpose of this study was to compare manual acupuncture and continuous ultrasound, both applied in addition to home exercises, for patients diagnosed with impingement syndrome. Subjects and Methods. Eighty-five patients with clinical signs of impingement syndrome were randomly assigned to either a group that received acupuncture (n=44) or a group that received ultrasound (n=41). Both interventions were given by physical therapists twice a week for 5 weeks in addition to a home exercise program. Scores from 3 shoulder disability measures, combined in the analysis, measured change during a period of 12 months. Results. Both groups improved, but the acupuncture group had a larger improvement in the combined score. Discussion and Conclusion. The results suggest that acupuncture is more efficacious than ultrasound when applied in addition to home exercises. [Johansson KM, Adolfsson LE, Foldevi MOM. Effects of acupuncture versus ultrasound in patients with impingement syndrome: randomized clinical trial. Phys Ther. 2005;85:490-501.]

Key Words: Family practice, Home exercise program, Physical therapy, Rotator cuff, Subacromial pain

Author Information

KM Johansson, PT, PhD, is Lecturer, Physical Therapy Program, Department of Health and Society, Primary Care, Linköpings Universitet, S-581 83, Linköping, Sweden (Kajsa.Johansson@ihs.liu.se). Address all correspondence to Dr Johansson.

LE Adolfsson, MD, PhD, is Associate Professor, Department of Neuroscience and Locomotion, Orthopedics and Sports Medicine, Linköpings Universitet.

MOM Foldevi, MD, PhD, is Associate Professor, Department of Health and Society, Primary Care, Linköpings Universitet.

All authors provided concept/idea/research design, writing, and project management. Dr Johansson provided data collection, and Dr Johansson and Dr Foldevi provided data analysis and fund procurement. Dr Adolfsson and Dr Foldevi provided subjects. The authors acknowledge statisticians John Carstensen, Mats Fredrikson, and Olle Eriksson for statistical consultation. Mr Jan Brandinger, Ms Karin Lindgren, Mr Christer Nilsson, and Mrs Gunilla Stålmarck are acknowledged for their work as physical therapists throughout the study. The authors also thank all participating patients and staff at the involved primary health care centers.

Article Information

This study was approved by the Ethics Committee of the Faculty of Health Sciences at Linköpings Universitet.

This study was supported by funding and facilities provided by the County Council of Östergötland and Linköpings Universitet, Sweden.

This article was submitted February 5, 2004, and was accepted November 19, 2004.

Copyright 2005 by the American Physical Therapy Association.