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Clinical Improvement and Resorption of Calcifications in Calcific Tendinitis of the Shoulder After Shock Wave Therapy at 6 Months' Follow-Up: A Systematic Review and Meta-Analysis.

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Abstract

OBJECTIVES: To evaluate the effectiveness of shock wave therapy (SWT) for functional improvement and the reduction of pain in patients with calcific tendinitis of the shoulder, and to determine the rate of disappearance of calcifications after therapy at 6 months' follow-up.

DATA SOURCES: Articles were searched from the Cochrane Library, MEDLINE, Embase, CINAHL, and Ovid database.

STUDY SELECTION: We included randomized controlled trials from 1992 to 2011, and their quality was assessed using the Physiotherapy Evidence Database (PEDro) scale.

DATA EXTRACTION: Studies were evaluated by 2 independent reviewers for their methodologic quality. Disagreements were settled by a third reviewer. Data were then extracted and cross-checked for accuracy. The reviewers were not blinded to the authors of the articles.

DATA SYNTHESIS: In 4 of the 6 studies included for review, the resorption of calcifications was evaluated using meta-analysis because the studies had 2 treatment groups, while the other 2 studies were analyzed descriptively because they had 3 treatment groups. Fixed- and random-effects models were used to meta-analyze total and partial resorption ratios, and I^2 statistics were calculated to assess heterogeneity.

CONCLUSIONS: We found a clinical improvement with a pooled total resorption ratio of 27.19 (95% confidence interval [CI], 7.20-102.67) and a pooled partial resorption ratio of 16.22 (95% CI, 3.33-79.01). SWT increases shoulder function, reduces pain, and is effective in dissolving calcifications. These results were maintained over the following 6 months.

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