

Abstract

Title: Frozen shoulder syndrome - effective physiotherapeutic approaches: systematic review

Objectives: The aim of this work was to determine from studies concerning the treatment of the primary form of frozen shoulder syndrome using physiotherapeutic methods and published in the last 10 years, which brings the best results in reducing pain, increasing range of motion and improving affected shoulder function.

Methods: Randomized controlled studies (double and single-blind) dealing with the physiotherapeutic intervention of frozen shoulder treatment with a data range of publications from September 1, 2011 to August 31, 2021 were searched. 3 databases were selected for this purpose: Cochrane Library, PubMed and Web of Science. Articles could be written in English, Czech, German, Slovak or Spanish. Different names of the studied disease were chosen as key words: adhesive capsulitis, contracted shoulder, frozen shoulder and periartthritis. Only articles with most probands between the ages of 30 and 70 were included. Persons with associated shoulder joint diseases such as rheumatoid arthritis (excluding diabetes mellitus) were excluded. The analysis of selected articles was performed from clearly compiled tables for individual studies and from 3 summary tables of associated individual physiotherapeutic methods.

Results: Of the 82 articles meeting the criteria and included in the research, it was found that the most effective physiotherapeutic methods aimed at suppressing frozen shoulder pain are acupuncture and laser therapy. Furthermore, the most effective physiotherapeutic methods aimed at increasing the range of motion in the shoulder are mobilization techniques and long-term stretching, while the Mulligan method stands out from the mobilization techniques. From physical therapy, it seems to be the most effective shock wave. Both focused and radial. The most effective physiotherapeutic methods aimed at improving shoulder function are acupuncture, mobilization techniques and long-term stretching. Mulligan's method again stands out from the mobilization techniques. From physical therapy, it seems to be the most effective radial shock wave therapy.

Conclusion: Acupuncture or laser therapy is appropriate to reduce pain of the frozen shoulder. Mobilization techniques, long-term stretching and shock wave therapy appear

to be the most effective for increasing the range of motion of the frozen shoulder. The function of the shoulder most effectively improve acupuncture, mobilization technique, long-term stretching and shock wave therapy.

Key words: frozen shoulder syndrome, adhesive capsulitis, physiotherapy, acupuncture, mobilization, stretching, laser therapy, shock wave therapy