

INPLASY

Current concepts in pathogenesis and conservative management of supraspinous tendinopathies

INPLASY202480067

doi: 10.37766/inplasy2024.8.0067

Received: 14 August 2024

Published: 14 August 2024

Ghiorghiu, I; Nartea, R; Ojoga, F; Alexe, MD.

Corresponding author:

IOANA GHIORGHIU

ioanaghiorghiu7@gmail.com

Author Affiliation:

UMF CAROL DAVILA.

ADMINISTRATIVE INFORMATION

Support - No Support.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202480067

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 August 2024 and was last updated on 14 August 2024.

INTRODUCTION

Review question / Objective Which conservative therapy is more efficient for pain and functional impotence secondary to supraspinous tendinopathies? We will study the recent literature regarding the efficiency of various conservative treatment methods in the management of supraspinous tendinopathy.

Condition being studied Since the rotator cuff muscle is most frequently injured, the supraspinatus has been extensively investigated. Though this little but important muscle has been well documented, much remains to be discovered and learned, particularly since chronic supraspinatus tendinopathy is a prevalent pain syndrome that impairs function and labor in the general population.

METHODS

Participant or population We intend to elaborate a review, with actual information based on clinical studies from international literature published

between 2014 and 2024, with more than 7 points on PEDro Scale.

Intervention The changes suffered by the supraspinous muscle in rotator cuff disease, as well as the clinical and paraclinical response to conservative rehabilitation treatment, are the subjects of this review, which examines articles published within the previous ten years. A significant amount of research have demonstrated that conservative treatments result in lower pain levels and higher functional levels. Additional research is required to determine the effectiveness of exercise programs that promote higher levels of motion and the use of various physical treatment techniques.

Comparator Not applicable.

Study designs to be included Clinical studies which meet the criteria of being published after 2014 and has a minimum 7 point score on PEDro Scale.

Eligibility criteria Studies were considered for inclusion criteria the following requirements: (1)

written in English, and published in a peer-reviewed journal; (2) included individuals of any gender, age, weight status, level of physical fitness, and health; (3) used physical therapy as a standalone intervention or in combination with other physical methods; (4) applied physical therapy of varying kinds, intensities, and durations; and (5) included a minimum of two measurements (pre- and post exercise/training) of pain and ROM. The exclusion criteria used to rule out studies are: (1) reviews, case reports, comments, opinions, or editorials; (2) they applied an intervention without any physical exercise; (3) they did not provide information about the type, intensity, frequency, or duration of the physical therapy applied; (4) local surgical interventions; or (5) they involved animals.

Information sources From January 2014 to July 2024, research was conducted across several significant databases, including PubMed, Scopus, EBSCO Host, Google Scholar, Academic Search Premier, ScienceDirect, and Springer-Link. Using the operators “AND”, “OR”, and “shoulder” OR “rotator cuffes” OR “conservative treatment” OR “Laser” OR “Ultrasound”, OR “TECAR”, OR “HiTop”, OR “Shock wave”, OR “TENS”, OR “IF”, OR “Massage”, OR “Antiinflammator treatment”, OR “Physical Therapy” the following essential phrases were added and combined: (“exercise” OR “acute exercise” OR “chronic exercise” OR “training” OR “physical activity” OR “endurance training” OR “resistance training”). In addition, relevant studies were found in the full-text publications’ reference lists and by searching related articles and citations in the PubMed database.

A systematic review (rather than a meta-analysis) was conducted because of the significant heterogeneity of the included studies with respect to the type of physical therapy method, participant characteristics, and physical level activity.

Main outcome(s) Conservative rehabilitation treatment improve the quality of life for patients regarding pain, motor function, ADL and global physical status.

Quality assessment / Risk of bias analysis Based on the inclusion and exclusion criteria, the authors independently assessed the titles retained from the abovementioned literature search. Potentially relevant citations were filtered down to the abstract level. Full-text papers were evaluated where the abstracts suggested that they should be included. Relevant data, such as sample size, participant characteristics (e.g., sex, age class, shoulder pathology, health condition), exercise modality (e.g., acute, chronic), type (e.g., aerobic,

resistance, intermittent, combined), intensity (e.g., moderate, intense), and physical therapy type (Laser, US, Shock Wave, TECAR, HiTop, TENS, massage) and duration were extracted for each eligible study. Changes in pain and ROM were also collected when available. Any differences in opinion between the authors about the choice of studies or the data extraction process were settled by discussion and agreement between all of the authors.

Strategy of data synthesis From January 2014 to July 2024, research was conducted across several significant databases, including PubMed, Scopus, EBSCO Host, Google Scholar, Academic Search Premier, ScienceDirect, and Springer-Link. Using the operators “AND”, “OR”, and “shoulder” OR “rotator cuffes” OR “conservative treatment” OR “Laser” OR “Ultrasound”, OR “TECAR”, OR “HiTop”, OR “Shock wave”, OR “TENS”, OR “IF”, OR “Massage”, OR “Antiinflammator treatment”, OR “Physical Therapy” the following essential phrases were added and combined: (“exercise” OR “acute exercise” OR “chronic exercise” OR “training” OR “physical activity” OR “endurance training” OR “resistance training”). In addition, relevant studies were found in the full-text publications’ reference lists and by searching related articles and citations in the PubMed database.

A systematic review (rather than a meta-analysis) was conducted because of the significant heterogeneity of the included studies with respect to the type of physical therapy method, participant characteristics, and physical level activity.

Subgroup analysis The study is focused on each type of physical therapy performed: Laser, US, Shock Wave, TECAR, HiTop, TENS, massage for each subgroup of clinical study.

Sensitivity analysis The study will be according Prisma 2020 checklist criteria.

Country(ies) involved Romania.

Keywords “shoulder” OR “rotator cuffs” OR “conservative treatment” OR “Laser” OR “Ultrasound”, OR “TECAR”, OR “HiTop”, OR “Shock wave”, OR “TENS”.

Contributions of each author

Author 1 - IOANA GHIORGHIU.

Author 2 - ROXANA NARTEA.

Author 3 - FLORINA OJOGA.

Author 4 - MARIA DELIA ALEXE.