

INPLASY PROTOCOL

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Support: TSUM.

Review Stage at time of this submission: Preliminary searches.

Conflicts of interest:
None declared.

INTRODUCTION

Review question / Objective: To evaluate whether additional suprascapular nerve (SSN) release can improve functional outcomes and shoulder pain more than rotator cuff repair only

The Role of Suprascapular Nerve Release in Rotator Cuff Repair: a Protocol for Systematic Review and Meta-Analysis

Chang, KV¹.

Review question / Objective: To evaluate whether additional suprascapular nerve (SSN) release can improve functional outcomes and shoulder pain more than rotator cuff repair only.

Condition being studied: To examine the usefulness of SSN release in patients undergoing rotator cuff tendon repair.

Information sources: PubMed, Cochrane CENTRAL, EMBASE, Clinical.gov. and Web of Science databases will be searched for the relevant studies without language restriction. Case reports, case series, conference abstracts, animal studies or those performed in laboratory settings will be excluded from the present meta-analysis.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 March 2022 and was last updated on 07 March 2022 (registration number INPLASY202230029).

Condition being studied: To examine the usefulness of SSN release in patients undergoing rotator cuff tendon repair.

METHODS

Search strategy: The combinations of the following keywords will be used for literature search, including rotator cuff,

shoulder pathology, suprascapular nerve, entrapment neuropathy, arthroscopy, arthroscopic release and arthroscopic decompression.

Participant or population: Participants undergoing rotator cuff repair.

Intervention: SSN release.

Comparator: Pre-operative baseline or the group without SSN release.

Study designs to be included: Cross-sectional, case-control, or cohort studies.

Eligibility criteria: (1) adults with shoulder disorders; (2) enrollment of a group undergoing SSN release and (3) assessment of shoulder function before and after the surgery.

Information sources: PubMed, Cochrane CENTRAL, EMBASE, Clinical.gov. and Web of Science databases will be searched for the relevant studies without language restriction. Case reports, case series, conference abstracts, animal studies or those performed in laboratory settings will be excluded from the present meta-analysis.

Main outcome(s): The primary and secondary outcomes are the changes in shoulder function and visual analog scale for pain, respectively, before and after rotator cuff surgeries (with or without SSN release).

Quality assessment / Risk of bias analysis: The National Institutes of Health (NIH) Quality assessment tool for case series and case control studies is used for assessing the quality of the included studies. The following domains are evaluated, including numbers and representativeness of cases, selections and definitions of controls, comparability between cases and controls and ascertainment, consistency and non-response rates of exposure (SSN release).

Strategy of data synthesis: A random effect model is employed to pool the effect size. The level of heterogeneity across the

enrolled studies is appraised by I² and Cochran's Q statistics.

Subgroup analysis: A subgroup analysis may be performed based on the difference in the study design.

Sensitivity analysis: We may perform a sensitivity analysis to evaluate the influence of each study on the overall effect by eliminating them individually.

Language: No limitation of languages.

Country(ies) involved: Taiwan.

Keywords: Arthroscopy; rotator cuff repair; shoulder surgery; suprascapular nerve release.

Contributions of each author:
Author 1 - Ke-Vin Chang.