INPLASY PROTOCOL

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Corresponding author:
Xiao-feng Qiao

Xiaofeng2058@yeah.net

Author Affiliation:
First Affiliated Hospital of Jiamusi University

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Review Stage at time of this submission: **The review has not yet started.**

Conflicts of interest:
None.

Effectiveness of suprascapular nerve block for the treatment of frozen shoulder: a protocol of systematic review

Wang, SF[1]; Wang, TS[2]; Li, JA[3]; Tang, ZC[4]; Qiao, XF[5].

Review question / Objective: **Is suprascapular nerve block (SNB) effective and safe for the treatment of frozen shoulder (FS)?**
Condition being studied: **Suprascapular nerve block; frozen shoulder.**
Information sources: **An experienced librarian with expertise in systematic reviews has been consulted to develop the search strategy from two search methods. All literature searches will not be limited by date and language. A primary search will be performed in the electronic databases (MEDLINE, EMBASE, CINAHL, Web of Science, PsycINFO, Cochrane Library, WANGFANG, and CNKI) from inception to the present. A detailed search strategy of MEDLINE is built, and similar search strategies are adapted to the other electronic databases. A secondary search will be performed in conference proceedings, ongoing trials from clinical trial registry, and reference lists of relevant reviews.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 May 2020 and was last updated on 22 May 2020 (registration number INPLASY202050084).

INTRODUCTION

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METHODS

Participant or population: Patients who were diagnosed as FS will be included, in spite of educational background, gender, race, and severity of FS.

Intervention: We will include patients who receive SNB as interventional management.

Comparator: Any interventions can be utilized as comparators, but not SNB.

Study designs to be included: This study will include randomized controlled trials (RCTs) investigating the effectiveness and safety of SNB in treating FS.

Eligibility criteria: This study will include RCTs investigating the effectiveness and safety of SNB in treating FS. We will exclude non-clinical trials, uncontrolled studies, and non-RCTs.

Information sources: An experienced librarian with expertise in systematic reviews has been consulted to develop the search strategy from two search methods. All literature searches will not be limited by date and language. A primary search will be performed in the electronic databases (MEDLINE, EMBASE, CINAHL, Web of Science, PsycINFO, Cochrane Library, WANGFANG, and CNKI) from inception to the present. A detailed search strategy of MEDLINE is built, and similar search strategies are adapted to the other electronic databases. A secondary search will be performed in conference proceedings, ongoing trials from clinical trial registry, and reference lists of relevant reviews.

Main outcome(s): The primary outcome is shoulder pain intensity, as reported by primary trial, such as visual analog scale. The secondary outcomes include functional ability (as measured by Oxford Shoulder Score or other relevant scales), shoulder range of motion (as reported by Passive Range of Motion, or other related scales), health related quality of life (as evaluated by three level EuroQol five-dimensional questionnaire or other associated tools), and adverse events.

Data management: Two authors will carry out data extraction based on the pre-designed standardized data extraction form independently and separately. Any dissimilarity will be disentangled by a third author through discussion or consultation. We will extract the following information: study information (e.g. title, primary author, year of publication), patient demographics (e.g. race, age, and eligibility criteria), trial setting, trial design, trial methodological quality, details of treatments and controls, primary and secondary outcomes, safety, and other important information.

Quality assessment / Risk of bias analysis: All study methodological quality of eligible quantitative research trials will be appraised by using Cochrane risk of bias tool. This tool includes seven domains, and we will rate each one as low, unclear or high risk of bias. Any disagreements will be solved by a third author through consultation.

Strategy of data synthesis: We will undertake statistical analysis using RevMan 5.3 software. All continuous outcome values will be estimated as weighted mean difference (MD) or standard MD and 95% confidence intervals (CIs), and all dichotomous outcome values will be expressed as risk ratio and 95% CIs. We will examine statistical heterogeneity across trials using I^2 test. I^2 ≤50% exerts minor heterogeneity, and a fixed-effects model will be employed; I^2 >50% reveals significant heterogeneity, and a random-effects model will be placed. We will conduct a meta-analysis if minor heterogeneity is examined across sufficient data on the same outcome indicator. On the other hand, if substantial heterogeneity is detected, we will perform subgroup analysis and meta-regression to explore heterogeneity sources.

Subgroup analysis: We will perform a subgroup analysis based on the different study information, patient characteristics,

study methodological quality, and details of treatment and control.

Sensibility analysis: **We will carry out a sensitivity analysis to examine the stability of study results by eliminating low quality trials.**

Country(ies) involved: **China.**
Keywords: **Frozen shoulder; suprascapular nerve block; effectiveness; safety.**

Contributions of each author:
Author 1 - Shou-feng Wang.
Author 2 - Tian-shu Wang.
Author 3 - Jian-an Li.
Author 4 - Zhao-chen Tang.
Author 5 - Xiao-feng Qiao.