INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Platelet Rich Plasma Versus Glucocorticoid for Plantar Fasciitis: A protocol for systematic review and meta-analysis of randomized controlled trials

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Review question / Objective: **To evaluate the long-term efficacy of glucocorticoids and platelet-rich plasma in the treatment of plantar fasciitis by means of meta-analysis.**
Condition being studied: **Plantar fasciitis is the most common cause of heel pain in adult. There are a variety of ways to treat plantar fasciitis, but these treatment have varied result in their effectiveness, and exist different degrees of limitations. At present, clinical studies focus on the effect of GC and PRP in the treatment of plantar fasciitis, but there is a lack of systematic evaluation PRP and GC's clinical effect towards PF. This study aims to evaluate the long-term efficacy of glucocorticoids and platelet-rich plasma in the treatment of plantar fasciitis by means of meta-analysis.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 October 2021 and was last updated on 18 October 2021 (registration number INPLASY2021100067).

INTRODUCTION

Review question / Objective: **To evaluate the long-term efficacy of glucocorticoids and platelet-rich plasma in the treatment of plantar fasciitis by means of meta-analysis.**

Condition being studied: **Plantar fasciitis is the most common cause of heel pain in adult. There are a variety of ways to treat plantar fasciitis, but these treatment have varied result in their effectiveness, and exist different degrees of limitations. At present, clinical studies focus on the effect of GC and PRP in the treatment of plantar**

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METHODS

Participant or population: Diagnosed plantar fasciitis(PF), meeting clinical diagnosis criteria, didn't accept glucocorticoid(GC) or platelet rich plasma(PRP) treatment recently.

Intervention: The intervention measures were PRP and GC local injection into metatarsal fascia, PRP and GC were respectively in treatment group and control group.

Comparator: Blank group (placebo).

Study designs to be included: This study only considered clinical randomized controlled trials of glucocorticoids and platelet rich plasma in the treatment of plantar fasciitis.

Eligibility criteria: Types of studies: This study only considered clinical randomized controlled trials of glucocorticoids and platelet rich plasma in the treatment of plantar fasciitis. Types of participants: diagnosed PF, meeting clinical diagnosis criteria, didn't accept GC or PRP treatment recently.Types of interventions: The intervention measures were PRP and GC local injection into metatarsal fascia, PRP and GC were respectively in treatment group and control group. Outcome measures: The primary outcomes were evaluated by Visual Analogue Scale(VAS) and Ankle Hindfoot Scale(AOFAS).

Information sources: CBMdisc, Wanfang, CNKI, Weipu Datebase, Cochrane Library, Pubmed and Embace were been searched.

Main outcome(s): The primary outcomes were evaluated by Visual Analogue Scale(VAS) and Ankle Hindfoot Scale(AOFAS). Author's name, year of publication, article title, sample size, gender and age of participants, diagnostic criteria, information about intervention and control groups, intervention measures, follow-up time, outcome indicators and outcomes.

Quality assessment / Risk of bias analysis: The "risk of bias assessment" tool recommended in Cochrane system Assessment Manual 5.0 was used to evaluate the included clinical randomized controlled studies[19]. According to Cochrane Handbook 5.0. stochastic method;(月)allocation concealment; adopt blinding to volunteers and researchers; adopt blinding to evaluator; the completeness of research data; selective reporting study outcomes; other bias. To decide whether it is low bias risk, bias risk unsure or lack of information. What have mentioned above conducted by two independent evaluators, and any differences that were difficult to determine could be solved by the third independent evaluator.

Strategy of data synthesis: Using Stata12.0 software and RevMan 5.3 software to do statistical treatment, Outcome Indexes performed in odds ratio (OR). For the dichotomous outcomes, we will use the relative risk (RR) to measure the treatment effect, and for the continuous outcomes, we will use standard mean difference (SMD) to analyse the effect. Both calculating 95% confidence intervals.

Subgroup analysis: If there is a large heterogeneity between the studies, we will conduct a subgroup analysis to investigate the differences in age and sex, measure of intervention, etc.

Sensitivity analysis: we will also use Stata12.0 software for sensitivity analysis to assess the robustness of the study conclusions. If the results showed no qualitative change in the combined effect, the results are stable.

Country(ies) involved: China.

Keywords: Platelet Rich Plasma, Glucocorticoid, Plantar Fasciitis, Systematic Review, Meta-analysis.

Contributions of each author:

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