

# INPLASY PROTOCOL

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

**Conflicts of interest:**  
The authors declare no conflicts of interest.

## A comparison of the effects of fire needle and routine acupuncture for myofascitis: a protocol of systematic review and meta-analysis

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**Review question / Objective:** The purpose of this review is to compare the fire needle and routine acupuncture treatment on myofascitis, during the treatment of myofascitis, whether fire needle groups were superior to, or inferior to, or equivalent to routine acupuncture groups.

**Condition being studied:** Myofascitis is known as myofascial pain syndrome (MPS) which is a group of clinical symptoms characterized by chronic pain of soft tissues with one or more trigger points. Aseptic inflammation of muscles and fascia can be found in the neck, shoulder, back, waist, planta and other parts. In recent years, with the popularity of air conditioning and computers, the incidence of myofascitis has been increasing year by year, accounting for about 20% ~ 30% of outpatient lumbago and leg pain, and has become one of the common diseases that seriously affect the quality of life of patients.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 09 August 2020 and was last updated on 09 August 2020 (registration number INPLASY202080034).

### INTRODUCTION

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## METHODS

**Participant or population:** Inclusion: patients with myofascitis (as diagnosed using any recognised diagnostic criteria). Exclusion: adolescents (under 18) and elderly people (over 80).

**Intervention:** Fire needle.

**Comparator:** Routine acupuncture.

**Study designs to be included:** All randomized controlled primary studies on the treatment of myofascitis with fire needles.

**Eligibility criteria:** Published original research data in Chinese or English that meets randomized control criteria will be considered for inclusion in this review.

**Information sources:** Pubmed, Embase, Cochrane Library, Chinese Biomedical Literatures Database (CBM), China National Knowledge Infrastructure (CNKI), WangFang Database (WF), Chinese Scientific Journal Database (VIP).

**Main outcome(s):** The total effective rate in myofascitis.

**Quality assessment / Risk of bias analysis:** Included in a risk of bias table created by Statistical Software RevMan 5.4, all studies will be assessed from five aspects recommended by Cochrane Handbook: selection bias; performance bias; detection bias; attrition bias; reporting bias. There are

seven items in the risk of bias table: randomisation sequence generation; allocation concealment; blinding of participants and personnel; blinding of outcome assessment; incomplete outcome data; selective outcome reporting; other bias. Each item assesses risk of bias according to three levels: unclear risk, low risk, and high risk. The assessment outcome can be displayed as a graph or summary.

**Strategy of data synthesis:** RevMan 5.4 software provided by the Cochrane Collaboration Network was used. Statistical analysis was carried out for the extracted data. Because of different conditions of researchers, subjects and locations included in the articles, the heterogeneity test was conducted first, and then the effect model was selected. The fixed effect model was used for the data with uniform numerical units. In the case of unexplainable heterogeneity, the random effect model can be combined. Subgroup analysis was performed for the data with high heterogeneity. Bivariate data were expressed as odds ratio (OR) and 95% confidence interval (CI). Continuous data were represented as mean difference (MD) and 95% CI.

**Subgroup analysis:** If the necessary data are available, subgroup analysis will be carried out according to different factors as follows: 1. Control interventions (eg, sham/placebo moxibustion, no treatment, other TCM treatment or non-TCM treatment). 2. Type of acupuncture and moxibustion (eg, needle acupuncture, electro-acupuncture, auricular acupuncture, heat-sensitive moxibustion, thunder fire miraculous moxa roll, warm needling moxibustion, suspended moxibustion or mild moxibustion).

**Sensitivity analysis:** To assess the influence of each individual study, leave-one-out sensitivity analysis was performed iteratively by removing one study at a time to confirm that the findings were not influenced by any single study.

**Country(ies) involved:** China.

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**Keywords:** Myofascitis; Fire needle;  
Routine acupuncture; System evaluation.

**Contributions of each author:**

**Author 1 - ZhiYing Zhong -** The author drafted and improved the manuscript.

**Author 2 - Jun Xiong -** Revise this protocol; search strategy.

**Author 3 - LunBin Lu -** The author contributed to the development of the selection criteria, and the risk of bias assessment strategy.