Acupoint massage for chronic fatigue syndrome: A protocol for systematic review and meta-analysis

Bi, YP¹; Li, X²; Yan, HX³; Zhang, XM⁴; Guan, HY⁵; Zhu, HY⁶; Ding, TW⁷; Song, BL⁸.

Review question / Objective: With changes in lifestyle and rhythm, chronic fatigue syndrome (CFS) is becoming increasingly common in the population. Many randomized controlled clinical studies have shown that acupoint massage has significant advantages in improving symptoms such as fatigue. However, there is no systematic review and meta-analysis published on the treatment of chronic fatigue syndrome with acupoint massage, which is worthy of our team’s research.

Condition being studied: Chronic fatigue syndrome (CFS) is characterized by persistent or recurrent conscious fatigue, accompanied by accompanying symptoms such as sleep disorders, subjective cognitive impairment, or diffuse muscle and bone pain. Its symptoms usually persist for six months or more, and fatigue cannot be relieved after rest. The average prevalence of CFS in the global general population ranges from 1.40 to 1.57%. However, the impact of acupoint massage on chronic fatigue syndrome is still controversial. Therefore, a current systematic review and meta-analysis will be conducted to investigate the role of acupoint massage in the management of chronic fatigue syndrome.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 April 2023 and was last updated on 25 April 2023 (registration number INPLASY202340083).

INTRODUCTION

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**METHODS**

**Search strategy:** The following electronic databases will be searched from the respective dates of database inception to April 25, 2023: the Cochrane Library, PubMed, Web of Science, EMBASE, China Science and Technology Journal, China National Knowledge Infrastructure, Wanfang, Chinese Biomedical Literature Database, and other sources. The retrieval mode used will be a combination of free words and medical subject headings terms, including: “chronic fatigue syndrome”; “acupoint massage” or “massage” or “massotherapy” or “Tuina”.

**Participant or population:** Our team included participants diagnosed with chronic fatigue syndrome who met the diagnostic criteria for chronic fatigue syndrome revised by the Centers for Disease Control and Prevention in 1994. Participants' gender, education level, age, race, severity, and source of cases are not restricted.

**Intervention:** Acupoint massage, massage, and Tuina, whether combined with other intervention methods or not, are the intervention measures that this study focuses on.

**Comparator:** Medication, conventional therapies, no intervention will be considered in control groups.

**Study designs to be included:** We will include only randomized controlled trials of acupoint massage treatment for chronic fatigue syndrome in the meta-analysis. The language will be limited to English and Chinese.

**Eligibility criteria:** The exclusion criteria are as follows: according to the requirements, the type of chronic fatigue syndrome disease population is unclear or the data is not available. The exclusion criteria were as follows: unspecified type or unavailable data for the chronic fatigue syndrome population upon request.

**Information sources:** The Cochrane Library, PubMed, Web of Science, EMBASE, China Science and Technology Journal, China National Knowledge Infrastructure, Wanfang, Chinese Biomedical Literature Database, and other sources.

**Main outcome(s):** The main results include the Fatigue Scale-14 (FS-14), Pittsburgh Sleep Quality Index (PSQI), Transient Fatigue Scale, Fatigue Severity Scale (FSS), and Hospital Anxiety and Depression Scale (HADS). Secondary outcomes include quality of life and degree of pain, visual analogue scale, and total effective rate.

**Quality assessment / Risk of bias analysis:** The risk of bias will be independently evaluated by two reviewers based on the Cochrane Intervention System Review Manual. Random sequence generation, allocation concealment, participant and personnel blindness, result evaluation blindness, incomplete result data, selective result report and other deviations will be evaluated as low risk, high risk or fuzzy risk in each randomized controlled trial. The results will be reviewed repeatedly and further discussions among all investigators will be conducted to resolve differences.

**Strategy of data synthesis:** The following electronic databases will be searched from the respective dates of database inception...
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**Subgroup analysis:** If heterogeneity is evident, subgroup analysis will be conducted based on the characteristics of the study to explore potential sources of heterogeneity. The criteria for subgroup analysis are as follows: (1) Type of control interventions. (2) Type of acupoint massage. (3) Frequency and duration of treatment.

**Sensitivity analysis:** For quality analysis, we will investigate the impact of bias on the results by conducting sensitivity analysis on the main results and excluding the high risk of bias studies.

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

**Keywords:** chronic fatigue syndrome, acupoint massage, systematic review, meta-analysis, protocol.

**Contributions of each author:**
Author 1 - Yunpeng Bi. Email: doctorbyp@126.com
Author 2 - Xi Li.
Author 3 - Huixin Yan.
Author 4 - Xiaomei Zhang.
Author 5 - Hongyi Guan.
Author 6 - Haiyu Zhu.
Author 7 - Tingwei Ding.
Author 8 - Bailin Song.