A scoping review protocol of systematic reviews and meta-analyses to acupuncture for the treatment of peripheral facial paralysis

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Review question / Objective: To conduct a systematic comprehensive review for Acupuncture treatment of peripheral facial paralysis and to evaluate the efficacy and safety of acupuncture therapy for peripheral facial paralysis.

Condition being studied: Peripheral facial paralysis, known as peripheral facial never palsy, includes Bell's palsy and Ramsay Hunt syndrome. Any medical conditions such as infection, malignancy and autoimmune issues can result it. Idiopathic Bell's palsy is the most common disease causing peripheral facial nerve palsy, which clinical features include unilateral weakness of the facial nerve, hyperacusis, dysgeusia, dry eye or uncontrollable tears, but the etiology of it is unclear. Ramsay Hunt syndrome, less common than Bell's palsy, is often caused by herpes zoster virus, which clinical features are unilateral weakness of face with ear herpes, tinnitus and dizziness. Facial paralysis patients with ear herpes can be diagnosed with Ramsay Hunt syndrome. Peripheral facial paralysis not only result the dyskinesia of facial muscles but also affect the quality of patient's life. There are lot of evidence shows that Acupuncture can be used in any period and any kind of peripheral facial paralysis. However, we still lack systematic reviews to assess the efficacy and safety of acupuncture therapy. As a result, we conduct a scoping review of systematic reviews and meta-analyses to address this gap.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 March 2022 and was last updated on 18 March 2022 (registration number INPLASY202230084).
facial paralysis in China. However, there is a heterogeneity between the interventions and the quality of the current research. To resolve this problem and provide a comprehensive overview of current evidence. We aim to conduct a scoping review that use systematic search methods to identify and map a wide range of literature broadly, identifying research gaps by highlighting strengths and limitations. At present, we want to further assess the acupuncture for peripheral facial paralysis to focus areas for intervention development.

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**METHODS**

**Search strategy:** A wide range of search methods was used to identify SRs. We had searched eight key electronic databases, including Cochrane Database, Web of Science, PubMed, Embase, China National Knowledge Infrastructure (CNKI), China Science and Technology Journal Database (VIP), China Biology Medicine disc (CBMdisc), and Wanfang. The database will be searched since the establishment of database to March, 2022. There will be no limits on studies that used languages differing from Chinese.

**Participant or population:** We will include patients diagnosed with facial paralysis. The patients can be with Bell's palsy or Ramsay Hunt syndrome and in any period peripheral facial paralysis.

**Intervention:** The treatment group intervention of SRs and MAs at least includes a kind of acupuncture therapy (acupuncture, electroacupuncture, auricular acupuncture, etc.) or moxibustion therapy.

**Comparator:** We will include any study that includes comparators, such as drugs, sham acupuncture, placebo, and no treatment.

**Study designs to be included:** SRs and MAs of randomized controlled trials (RCTs) examining the effectiveness and safety of acupuncture and related therapies for treating peripheral facial paralysis (PFP).

**Eligibility criteria:** (1) either a systematic review or meta-analysis; (2) correlation between acupuncture therapy and peripheral facial paralysis (defined as the only treatment method in the title and keywords).

**Information sources:** To answer the research question, we will search Cochrane Database, Web of Science, PubMed, Embase, China National Knowledge Infrastructure (CNKI), China Science and Technology Journal Database (VIP), China Biology Medicine disc (CBMdisc), and Wanfang Database since the establishment of the database. There will be no limits on studies that used languages differing from Chinese.

**Main outcome(s):** The main outcomes are the total effective rate of patients and the recovery of facial muscles defined by

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House-Brackmann Grading Scale (HBGS), which classifies the facial nerve function into 6 levels (normal, mild, moderate, moderate to severe, severe, and complete dysfunction). The main outcomes are the total effective rate of patients and the recovery of facial muscles defined by House-Brackmann Grading Scale (HBGS), which classifies the facial nerve function into 6 levels (normal, mild, moderate, moderate to severe, severe, and complete dysfunction). And the second outcomes include linear measurement of facial movement, blinded visual assessment movements, electroneuronography, pain intensity (measured by visual analog scale, numerical rating scale, McGill pain scale or other rating scales), adverse effects, and complications (including infection, needle sickness, needle breakage, and hematoma).

Additional outcome(s): the second outcomes include linear measurement of facial movement, blinded visual assessment movements, electroneuronography, pain intensity (measured by visual analog scale, numerical rating scale, McGill pain scale or other rating scales), adverse effects, and complications (including infection, needle sickness, needle breakage, and hematoma).

Data management: We used PRISMA SCR as a reference for the scoping review. Data extraction will be performed by author A (Yingrong Zhang) and B (Sanchun Tan), and checked by another author (Zhongyu Zhou). Variables will be extracted for the following key groupings: general study information, intervention measures, outcome data and analysis/results. The results will be briefly organized into a tabular format and analyzed using narrative description. The results was briefly organized into a tabular format and analyzed using narrative description. The data extracted from the study is presented in the form of tables and pictures.

Quality assessment / Risk of bias analysis: Two researchers (Yingrong Zhang and Sanchun Tan) will evaluated the quality of included studies by using the AMSTAR2 tool in duplicate. The AMSTAR2 scale contains a total of 16 entries, each entry is answered “yes” or “no”, some entries can be answered as “partial yes”. If no items are defective or there is only one non-key item that is defective, the methodological quality of the commented SR is high. When more than one non-key item is defective and no key item is defective, the methodological quality is judged into medium. The methodological quality is low when a key item is defective with or without non-critical item defects. The methodological quality is extremely low when there is more than one key item defect, with or without non-critical item defects.

Strategy of data synthesis: The key elements of the review available include the number of RCT included in SRs/MAs, total sample size, nationality, study aim, intervention, control, outcome measurements. The data extracted from the study will be presented in the form of tables and pictures to facilitate our summary. the AMSTAR-2 will be used to evaluate the quality of the included SRs and MAs and PRISMA for reporting quality assessment. Tabular format can be used to describe the result, narrative descriptions will be used for further analysis if necessary.

Subgroup analysis: As scoping review research, there will be no plan for analysis subgroup data.

Sensitivity analysis: As scoping review research, there will be no plan to perform the sensitivity analysis of data.

Language: No restriction.

Country(ies) involved: China.

Other relevant information: No.

Keywords: Acupuncture, peripheral facial paralysis, Scoping review, Protocol.

Contributions of each author: Author 1 - Yingrong Zhang.