INPLASY PROTOCOL

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Corresponding author:
Peiyu Xiong

649716671@qq.com

Author Affiliation:
Chengdu University of Traditional Chinese Medicine

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Conflicts of interest:
All authors involved in this work have no conflicts of interest.

Effect of acupuncture of Sphenopalatine Ganglion for the treatment of allergic rhinitis: a protocol for a systematic review and meta-analysis

Xiong, P[1]; Yuan, T[2]; Xu, L[3]; Jia, B[4].

Review question / Objective: **To evaluate the efficacy and safety of acupuncture of sphenopalatine ganglion in the treatment of allergic rhinitis.**
Condition being studied: **Allergic rhinitis is an allergic disease of the nasal mucosa mediated by IgE after the body is exposed to allergens. Acupuncture of sphenoid ganglion is a new technique developed by Professor Li Xinwu in the 1860s to treat allergic rhinitis The efficacy of acupuncture on the sphenopalatine ganglion in the treatment of AR has been clinically verified, but a systematic review and meta-analysis of them is lacking. Our purpose is to evaluate the efficacy and safety of acupuncture on the sphenopalatine ganglion in the treatment of AR.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 October 2020 and was last updated on 19 October 2020 (registration number INPLASY2020100067).

INTRODUCTION

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treatment of AR has been clinically verified, but a systematic review and meta-analysis of them is lacking. Our purpose is to evaluate the efficacy and safety of acupuncture on the sphenopalatine ganglion in the treatment of AR.

METHODS

Search strategy: The details were adjusted according to the specific databases including Chinese Biomedical Literature(CBM), the China National Knowledge Infrastructure Database (CNKI),Wangfang Database (WF),Chinese Scientific Journal Database (VIP), Web of Science, Embase, PubMed, Cochrane Library, the World Health Organzation International Trials Registry Platform (WHO ICTRP), Chinese Clinical Trial Register (ChiCTR), Clinical Trials, Grey Literature Database. No limitation on language or publication types restriction will be applied.

Participant or population: Participants in different age ranges with AR can be included in the study without restricting nationality, sex, race, occupation or education. Patients with vasomotor rhinitis, non-allergic rhinitis with eosinophilia syndrome, infectious rhinitis, hormonal rhinitis, drug-induced rhinitis, aspirin intolerance triad, cerebrospinal rhinorrhea were excluded.

Intervention: The Study focus on clinical trials of acupuncture sphenopalatine ganglion in the treatment of AR, and the results will provide clinicians with consultation and advice. Therefore, the experimental group treated only with acupuncture and without any combination of other drugs and treatment will be included, regardless of the method of needle insertion, duration and frequency.

Comparator: Studies of control groups will be treated with treatment and other interventions:(e.g, drugs, conventional acupuncture).

Study designs to be included: All relevant RCTs published in English and Chinese on acupuncture sphenopalatine ganglion for AR can be included. Non-randomized controlled trials, reviews, case reports, experimental studies, expert experience and duplicate publications will be excluded.

Eligibility criteria: The Study only selected the clinical trials of acupuncture sphenopalatine ganglion in the treatment of AR. Non-randomized controlled trials, reviews, case reports, experimental studies, expert experience and duplicate publications will be excluded.

Information sources: The details were adjusted according to the specific databases including Chinese Biomedical Literature(CBM), the China National Knowledge Infrastructure Database (CNKI),Wangfang Database (WF),Chinese Scientific Journal Database (VIP), Web of Science, Embase, PubMed, Cochrane Library, the World Health Organzation International Trials Registry Platform (WHO ICTRP), Chinese Clinical Trial Register (ChiCTR), Clinical Trials, Grey Literature Database. No limitation on language or publication types restriction will be applied.

Main outcome(s): The nasal symptom score will be evaluated as the primary outcome. The nasal symptom score (TNSS): sneezing, runny nose, itchy nose, nasal congestion and ocular symptom.

Additional outcome(s): Quality of life questionnaire for nasal conjunctivitis (RQLQ); Visual analogue scale (VAS).

Data management: Two independent reviewers will extract data from eligible studies and enter the following information in the data extraction sheet. When the data can not be extracted through discussion to reach a consensus, the decision will be made by the third author.

Quality assessment / Risk of bias analysis: Literature retrieval, screening and data extraction were conducted by two researchers independently through a standardized eligibility form. In case of disagreement, a third party shall be consulted to assist judgment, and the missing information shall be supplemented

by contacting the author. The general information of the selected articles will be extracted, including first author, country, year of publication, study design, duration of follow-up, duration of disease, sample size, detailed intervention, control treatment and the like. When the data of articles are sufficient or ambiguous, one of the authors will contact the original author to request detailed and additional information by e-mail or telephone.

Strategy of data synthesis: RevMan5.3.5 will be used for all statistical analyses. Based on the heterogeneity levels of the included studies, the fixed-effects model (I^2 $<$50%) or random-effects model ($I^2 \geq 50\%$) will be selected. The dichotomous data will be analyzed by RR with 95% CIs, while the continuous data will be analyzed by MD/SMD with 95% CIs. The meaningful heterogeneity will be explained by any additional assessment included sensitivity analysis or subgroup analysis depended on the data.

Subgroup analysis: If necessary, Subgroup analysis will be performed based on different types of acupuncture therapy, participant characteristics, and outcome measures.

Sensibility analysis: When the subgroup analysis is unsatisfactory, we will use sensitivity analysis to evaluate the robustness of the main results. Then meta-analysis reorganizes and merges the data, and finally compares with the previous results.

Language: English.

Country(ies) involved: China.

Keywords: Acupuncture;Sphenopalatine ganglion;Xinwu Point;Die'e Point;Allergic rhinitis (AR).

Contributions of each author:
Author 1 - Peiyu Xiong.
Author 2 - Tao Yuan.
Author 3 - Lu Xu.
Author 4 - Bo Jia.