## INPLASY PROTOCOL

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# Effects of acupuncture and moxibustion in reducing urine leakage for female stress urinary incontinence: A protocol for an overview of systematic reviews and meta-analyses

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Review question / Objective: Participants: Female patients who are diagnosed with SUI according to any widely recognized and accepted criteria, regardless of their age, ethnicity, education, or social status. Interventions: The treatment used in the experimental group mainly includes acupuncture, electroacupuncture, warm needle acupuncture, stick-moxibustion, direct-moxibustion, partition moxibustion, or one of the above therapies combined with traditional Chinese medicine or pelvic floor muscle exercise. Comparator/control: The control groups were treated with conventional western medicine, pelvic floor muscle exercise, electrical stimulation, or placebo. Outcome indicators: (1) Primary outcomes: effective rate, urine leakage in 1-hour pad test; (2) Secondary outcomes: International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) score, pelvic floor muscle strength, frequency of 24-hour urinary incontinence, and adverse reactions. Types of studies: Peerreviewed SRs and MAs based on randomized controlled trials (RCTs) will be included in this overview.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 March 2022 and was last updated on 20 March 2022 (registration number INPLASY202230100).

#### INTRODUCTION

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acupuncture, electroacupuncture, warm needle acupuncture, stick-moxibustion, direct-moxibustion, partition moxibustion, or one of the above therapies combined with traditional Chinese medicine or pelvic floor muscle exercise. Comparator/control: The control groups were treated with conventional western medicine, pelvic floor muscle exercise, electrical stimulation, or

placebo. Outcome indicators: (1) Primary outcomes: effective rate, urine leakage in 1-hour pad test; (2) Secondary outcomes: International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) score, pelvic floor muscle strength, frequency of 24-hour urinary incontinence, and adverse reactions. Types of studies: Peer-reviewed SRs and MAs based on randomized controlled trials (RCTs) will be included in this overview.

Condition being studied: Stress urinary incontinence (SUI) is considered the most common type of UI in women, which manifests involuntary leakage of urine when coughing, sneezing, or physical exertion. Studies have reported that the overall prevalence of SUI in adult women is approximately 46% and reaching 50% when women are 40 and more years in the United States. Acupuncture and moxibustion have shown their efficacy in the treatment of SUI. Hence, an overview based on available systematic reviews and meta-analyses will be conducted to appraise and summarize the evidence.

#### **METHODS**

Participant or population: Female patients who are diagnosed with SUI according to any widely recognized and accepted criteria, regardless of their age, ethnicity, education, or social status.

Intervention: The treatment used in the experimental group mainly includes acupuncture, electroacupuncture, warm needle acupuncture, stick-moxibustion, direct-moxibustion, partition moxibustion, or one of the above therapies combined with traditional Chinese medicine or pelvic floor muscle exercise.

Comparator: The control groups were treated with conventional western medicine, pelvic floor muscle exercise, electrical stimulation, or placebo.

Study designs to be included: Peerreviewed SRs and MAs based on randomized controlled trials (RCTs) will be included in this overview. Eligibility criteria: Participants: Female patients who are diagnosed with SUI according to any widely recognized and accepted criteria, regardless of their age, ethnicity, education, or social status. Interventions: The treatment used in the experimental group mainly includes acupuncture, electroacupuncture, warm needle acupuncture, stick-moxibustion, direct-moxibustion, partition moxibustion, or one of the above therapies combined with traditional Chinese medicine or pelvic floor muscle exercise.Comparator/control: The control groups were treated with conventional western medicine, pelvic floor muscle exercise, electrical stimulation, or placebo. Outcome indicators: (1) Primary outcomes: effective rate, urine leakage in 1-hour pad test (2) Secondary outcomes: **International Consultation on Incontinence** Questionnaire-Short Form (ICIQ-SF) score, pelvic floor muscle strength, frequency of 24-hour urinary incontinence, and adverse reactions. Types of studies: Peer-reviewed SRs and MAs based on randomized controlled trials (RCTs) will be included in this overview.

Information sources: The relevant SRs and MAs estimating the efficacy of acupuncture and moxibustion for the treatment of female SUI will be comprehensively searched in the following databases: the Cochrane Central Register of Controlled Trials, MEDLINE (via PubMed), EMBASE, the Web of Science, China National Knowledge Infrastructure (CNKI), Wan-Fang Database, Chinese Scientific Journal Database (VIP database) and Chinese Biomedical Literature Database (CBM) from inception to March 2022. We will also search the reference list of included studies or grey literature to ensure the comprehensiveness of the retrieval. Searching terms are a combination of subject terms and free words.

Main outcome(s): Effective rate, urine leakage in 1-hour pad test.

Additional outcome(s): International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) score,

pelvic floor muscle strength, frequency of 24-hour urinary incontinence, and adverse reactions.

#### Quality assessment / Risk of bias analysis:

AMSTAR 2, RoB 2, PRISMA-A checklist, and the GRADE approach will be adopted to assess methodological quality, risk of bias, reporting quality, evidence quality respectively.

Strategy of data synthesis: A narrative description of the included SRs will be adopted to conduct this overview.

Subgroup analysis: When sufficient data is available, we will perform the following subgroup analysis to investigate the source of heterogeneity: age, different treatment methods, the treatment duration or stimulus intensity of acupuncture and moxibustion.

Sensitivity analysis: Sensitivity analysis is mainly used to analyze the quality of research to reduce the influence of low-quality or small sample size literature on the results of a meta-analysis. Therefore, we will perform a sensitivity analysis to evaluate the stability and credibility of the literature if necessary. When the heterogeneity is too large to resolve, we will consider excluding those highly-sensitive articles for re-analysis and then explain the potential reasons.

Country(ies) involved: China.

Keywords: acupuncture; moxibustion; urine leakage; stress urinary incontinence; overview.

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