INPLASY PROTOCOL

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None declared.

Meta-analysis of acupuncture to relieve cancer pain

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Review question / Objective: **Compared with Non-acupuncture therapy, a systematic review of the clinical efficacy of acupuncture (acupuncture, electroacupuncture, ear acupuncture, auricular acupuncture, wrist and ankle acupuncture, press acupuncture, acupoint injection, acupoint compression, fire acupuncture, moxibustion) in the treatment of primary dysmenorrhea.**
Condition being studied: **(1) Research object: cancer pain patients; (2) Intervention measures: treatment group: acupuncture or including acupuncture therapy; control group: Non-acupuncture therapy; (3) Research outcome: pain.**
Information sources: **China National Knowledge Infrastructure Database (CNKI), Chongqing VIP Chinese Science and Technology Periodical Database (VIP), Wanfang Database (Wanfang Database), Chinese Biomedical Database (Chinese Biomedical) Literature Database, CBM), Google Academic (Google Academic), Baidu Scholar (Baidu Scholar), PubMed, web of science, Medline, Embase.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 20 August 2021 and was last updated on 20 August 2021 (registration number INPLASY202180077).

INTRODUCTION

Review question / Objective: **Compared with Non-acupuncture therapy, a systematic review of the clinical efficacy of acupuncture (acupuncture, electroacupuncture, ear acupuncture, auricular acupuncture, wrist and ankle acupuncture, press acupuncture, acupoint injection, acupoint compression, fire acupuncture, moxibustion) in the treatment of primary dysmenorrhea.**

Rationale: **Cancer pain is a long-term and continuous pain caused by the disease itself or treatment. Cancer pain seriously threatens the quality of life of patients. Pain relief has become one of the important research contents to improve the quality of**

life of cancer patients. At present, drugs are effective measures for the treatment of cancer pain, and the three-step analgesic therapy has fast action speed and strong analgesic power. However, taking a large amount of non-opioid drugs for a long period of time is prone to adverse reactions such as digestive tract ulcers, platelet dysfunction, and nephrotoxicity. Acupuncture is considered to have a good analgesic effect. Therefore, as a "green therapy", acupuncture is easy to operate, has no obvious adverse reactions, and has significant effects. It is the choice of many patients. At present, there have been systematic reviews on the treatment of cancer pain, but there is still controversy about the conclusion that acupuncture is better than placebo control in the treatment of cancer pain. In addition, the evaluation of its efficacy is also difficult, because even for the same cancer type of pain, in different trials or even the same trial, due to different TCM syndrome differentiation and treatment plans, the acupuncture points used are often different. . Therefore, the difference in the selection of acupoints may also affect the evaluation of the efficacy of acupuncture. In addition, their search scope is limited to foreign language databases such as MEDLINE, Medical Literature Database (ExcerptaMedica Database, EMBASE) and several Korean journals, and the literature included in the evaluation also includes non-randomized controlled trial (NRCT). At present, some new randomized controlled trials (RCT) have been published one after another. It is necessary to conduct a rigorous systematic review of all RCTs of acupuncture treatment of cancer pain to evaluate the effect of acupuncture treatment of cancer pain. Therefore, the author adopts scientific methods to systematically evaluate the clinical efficacy of acupuncture and western medicine in the treatment of cancer pain. Reference and evidence-based basis.

METHODS

Search strategy: Search style: Chinese database search style: (癌 or 肿瘤)and(疼 or 痛)and(针 or 电针or 耳针 or 耳穴 or腕踝针 or 头针 or三棱针 or皮肤针 or皮内针or揿针 or穴位注射 or 穴位按压 or穴位贴敷or 火针 or 艾灸). English : (Cancer OR carcinoma OR tumor OR tumour OR neoplasm) AND (pain OR analgesia) AND (acupuncture OR needle OR needling OR electroacupuncture OR point injection OR acupressure OR moxibustion therapy.

Participant or population: Cancer pain patients.

Intervention: Acupuncture or including acupuncture therapy.

Comparator: Non-acupuncture therapy.

Study designs to be included: RCT.

Eligibility criteria: Inclusion criteria: ①The research object is cancer patients with pain; ②The type of literature research is a randomized controlled trial (RCT); ③The intervention measures of the experimental group are (including) one or more of acupuncture and moxibustion therapy, and the control group is non-acupuncture and moxibustion therapy (Western medicine, placebo, blank control), or acupuncture therapy; ④The results of the study report the changes in pain outcome indicators before and after treatment; ⑤The repeater will take the one with the most complete content.Exclusion criteria: ①The basic information of the research object (such as age, etc.) is not reported; ②Repeated publication of the research data of the same sample population; ③Descriptive research, empirical summary or theoretical basis discussion, case report, review, animal experiment research Etc. are not clinical trials; ④Retrospective studies and quasi-randomized controlled trials literature; ⑤Controlled studies of disease group and non-disease group. ⑥A trial of combining cancer pain with other painful diseases. ⑦Unable to obtain full text and non-Chinese or English documents.

Information sources: China National Knowledge Infrastructure Database (CNKI), Chongqing VIP Chinese Science and Technology Periodical Database (VIP), Wanfang Database (Wanfang Database), Chinese Biomedical Database (Chinese Biomedical) Literature Database, CBM), Google Academic (Google Academic), Baidu Scholar (Baidu Scholar), PubMed, web of science, Medline, Embase.

Main outcome(s): 1 - Vas score; 2 - Dysmenorrhea Symptom Scale (CMSS); 3 - COX dysmenorrhea symptom scale.

Additional outcome(s): Pain relief rate; Relief of pain-related symptoms.

Data management: Two independent reviewers perform screening, analysis and inclusion. Import the retrieved documents into NoteExpress (document volume) for screening, delete duplicate publications, and after reading the title, abstract, and full text, extract data from the final included documents. All the extracted data (such as test tables) are duplicated Save.

Quality assessment / Risk of bias analysis: Methodological quality assessment: Two independent reviewers use Risk of bias (ROB) to evaluate the methodological quality of RCT research, according to the risk of bias assessment tool recommended by the International Evidence-based Medicine Alliance (Risk.of.bias). The methodological quality of the included literature is evaluated. This evaluation tool comprehensively evaluates the risk of bias in randomized controlled trials. The evaluation items specifically include seven aspects: (1) Whether the method of random allocation is described in detail, whether the method of random sequence generation is described in detail; (2) Whether the specific scheme of random allocation is hidden; (3) Whether the double-blind method is adopted, that is Blinding is implemented for both the investigator and the subjects; (4) Whether the blinding method is used for the calculation of the research results; (5) Whether the complete result data is reported; (6) Whether the reported research results are optional reports; (7) Whether there are other sources of bias. And according to the above risk of bias results, the quality of the included research is divided into three grades: A, B, and C.

Strategy of data synthesis: The Rev Man 5.3 software provided by the Cochrane Collaboration was used to conduct meta-analysis of RCT research data. Continuous variables used mean difference (MD) or standardized mean difference (WMD); categorical variables used relative risk (RR), the effect size of both were expressed by 95% CI, $P<0.05$ considered the difference to be statistically significant. Categorical variables used relative risk (RR) to describe the effect size of each study. Measurement data effect indicators are measured by ① Mean difference (MD): the average difference between groups before treatment (balance test), the average difference between pretreatment and after treatment, and the average difference between groups after treatment; ②standardization Mean deviation (SMD): different methods used for different VAS scale units, if some scales are 0-20, some scales are 0-100, to eliminate the influence of different measurement methods and different units, ③ 95% Confidence interval (CI) describes the effect size of each study.

Subgroup analysis: When the heterogeneity is too large, according to region, age, gender, sample size, cancer location and nature, severity of the disease, pain degree, pain type (onset, postoperative, bone metastasis, neuropathy), intervention characteristics (acupuncture) Method, needle type, number of needles, acupuncture technique, needle sensation, acupuncture points and number of treatments, time), treatment course, intervention intensity and stage, control type, index, onset time, any adverse reactions, etc. will be analyzed in subgroups. Such as the type of acupuncture: scalp acupuncture VS western medicine; body acupuncture VS western medicine; hand examination VS

western medicine), the interpretation of positive results should be cautious.

Sensitivity analysis: Sensitivity analysis is used to analyze the extent to which the results have been changed by changing the analysis method, that is, the degree of sensitivity, which is specifically used for the analysis of research quality, methodological elements, publication types, publication languages, etc. At the same time, analysis of sensitivity analysis answers what decisions may be made to change the results of the research, such as the inclusion of low-quality literature, the use of different denial statistical analysis methods to analyze data, such as two models, and the inclusion of published literature. If the sensitivity analysis changes the results, conclusions should be made more cautiously.

Language: Chinese, English.

Country(ies) involved: China.

Keywords: Acupuncture; Cancer pain; Meta analysis.

Dissemination plans: Paper.

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