Acupuncture and related therapy for symptom management in palliative cancer care: systematic review and meta-analysis

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Citation

Review question(s)
To summarize current best evidence on the potential role of acupuncture and related therapies for palliative cancer care.

Searches
Comprehensive literature search will be conducted by searching both international and Chinese databases, including the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, CINAHL Plus, the Allied and Complementary Medicine Database (AMED), Chinese Biomedical Databases (CBM), Wan Fang Digital Journals and Taiwan Periodical Literature Databases. Specialized search filter for clinical trials will be used in MEDLINE and EMBASE. No language restriction will be set during the literature search.

Types of study to be included
Only randomized controlled trial (RCT) will be considered.

Condition or domain being studied
Acupuncture and related therapies are widely used in palliative cancer care among Chinese populations, and are gaining popularity globally. Effectiveness of these treatments, especially in the management of symptoms for which conventional medicine has limited to offer, would be of high interest among clinicians in palliative medicine. Clinical evidence on the potential effectiveness of acupuncture and related therapies for controlling fatigue, paresthesia and dysesthesias, chronic pain, anorexia, insomnia, limb edema and constipation should be synthesized. Currently, 10 systematic reviews (SRs) have been conducted to assess the role of acupuncture and related therapies in palliative cancer care. It is demonstrated that acupuncture is an effective treatment for chemotherapy induced nausea and vomiting, but its effectiveness for other areas with unmet needs is uncertain.

Participants/ population
Patients diagnosed with any types of cancer will be considered.

Intervention(s), exposure(s)
Any form of acupuncture or related techniques will considered, including needle based acupuncture (including electro-acupuncture), as well as other techniques including auricular acupuncture, laser acupuncture, acupressure, acupoints injection, moxibustion and transcutaneous electrical nerve stimulation (TENS).

Comparator(s)/ control
Randomized controlled trials (RCTs) with control groups that have used any type of interventions without acupuncture or related treatments will be considered. Control interventions may include conventional treatment, behavioral therapies, Chinese herbal medicine treatment, sham acupuncture, waiting list or no treatment;

Outcome(s)
Primary outcomes
RCTs reporting one or more of the following pre-defined primary outcomes measured with validated instruments will be included: fatigue, paresthesia and dysesthesias, chronic pain, anorexia, insomnia, limbs edema, constipation, and health-related quality of life.

No restriction on the follow up duration.

Secondary outcomes
None.

Data extraction, (selection and coding)
All the retrieved citations will be screened and assessed for their eligibility according to the inclusion criteria. The following data will be extracted from each included RCT:

i) characteristics of the study, including first author’s name, year of publication, country of the trial conducted, eligibility criteria, and simple size;

ii) details on patient characteristics, acupuncture and related therapies, control interventions and outcomes;

iii) effect on each interested outcomes and adverse effects related to acupuncture and related therapies; and

iv) information on risk of bias.

Risk of bias (quality) assessment
Risk of bias of included RCTs will be assessed with the latest version of the Cochrane risk of bias tool, which assessed risk of bias in the domains of sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessments, incomplete outcome data, and selective outcome reporting. Each domain will be judged to have low, high or unclear risk of bias according to information provided by RCT authors.

Strategy for data synthesis
Effectiveness will be measured with relative risk (RR) for dichotomous data and standardized mean difference (SMD) or weighted mean difference (WMD) for continuous data. 95% confidence interval (CI) will be used to account for the uncertainty of the estimation. Random effects model will be used to account for the variations across trials during meta-analysis. I-squared statistic will be used to measure the heterogeneity across trials. I-squared <25% will be considered as low level of heterogeneity, 25-50% as moderate level, and larger than 50% as high level. Funnel plot will be used to detect the potential presence of publication bias if more than ten trials are available for one outcome. STATA Version 13.0 (STATA Corporation, College Station, TX, USA) will be used for the data analyses, with a two-tailed significance level of 0.05.

Analysis of subgroups or subsets
Subgroup analysis will be conducted according to type of cancer if applicable.

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