Acupuncture for the relief of cancer-related pain: a systematic review

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CRD summary
This review assessed acupuncture as an adjunctive treatment for cancer-related pain. The authors concluded that current evidence does not support the use of acupuncture, and that adequately powered randomised controlled trials are required. This was a well-conducted review and the authors' conclusions are likely to be robust.

Authors' objectives
To assess the evidence on acupuncture as an adjunctive treatment for cancer-related pain.

Searching
MEDLINE, EMBASE, CINAHL, AMED, PsycINFO, British Nursing Index and the Cochrane Library were searched from inception to February 2004 for studies reported in any language; the search terms were reported. Two named leading Korean Journals were also searched. The reviewers' departmental files were handsearched, along with the reference lists of all identified studies.

Study selection
Study designs of evaluations included in the review
Prospective clinical studies were eligible for inclusion. Case series and case reports were excluded, as were abstracts that gave no details of the intervention.

Specific interventions included in the review
Studies of manual acupuncture, ear acupuncture and electroacupuncture were eligible for inclusion. Studies of other forms of acupuncture, transcutaneous electrical nerve stimulation, and other cointerventions of complementary and alternative medical treatments were excluded. The included studies used a variety of acupuncture methods (details were reported). The control groups, where present, received conventional treatment alone or placebo acupuncture.

Participants included in the review
Studies of patients with cancer-related pain were eligible for inclusion. Studies of cancer patients with post-operative pain were excluded. The included studies were conducted in patients with various types of cancer and various types of pain including neuropathic and radiating back pain (details were reported).

Outcomes assessed in the review
Studies that assessed pain as the primary outcome were eligible for inclusion. Most of the included studies assessed pain using visual analogue scales (VAS). The review also assessed adverse effects.

How were decisions on the relevance of primary studies made?
Two reviewers independently selected studies for inclusion.

Assessment of study quality
Validity was assessed and scored using a modified Jadad scale that considered the reporting and appropriateness of randomisation, blinding of the patient and outcome assessor, and description of handling of withdrawals and drop-outs. The maximum possible score was 5 points. Studies scoring 4 or 5 points were considered high quality. The review also assessed sample size. Two reviewers independently assessed validity and reached consensus with the aid of a third reviewer.

Data extraction
Two reviewers independently extracted the data and reached consensus with the aid of a third reviewer.

**Methods of synthesis**

How were the studies combined?
The studies were combined in a narrative.

How were differences between studies investigated?
Differences between the studies were discussed with respect to study design and quality. Other differences were apparent on examination of the data extraction tables.

**Results of the review**

Seven studies (n=368) were included: 3 randomised controlled trials (RCTs) (n=214) and 4 uncontrolled studies (n=154).

One of the 3 RCTs was of high quality (score 5 points); the other two were of poor quality, scoring only 1 point each (for randomisation). The uncontrolled studies did not report withdrawals and drop-outs and scored zero points. Major methodological limitations of the included studies were small sample size, the lack of a statistical comparison between treatments, use of unreliable or subjective outcome measures, lack of consistent protocols and poor reporting.

The one high-quality RCT (n=90) found that ear acupuncture significantly reduced pain intensity, on a VAS, compared with placebo ear acupuncture at day 30 (P=0.02) and day 60 (P<0.001) of a 2-month trial. The remaining poor-quality RCTs (n=48 and n=76) found mixed results: one found no significant difference between body acupuncture and control, while the other found body acupuncture improved chest pain.

Three of the 4 uncontrolled studies (n ranged from 10 to 92) found pain relief with acupuncture; the other study found no effect on pain.

Three studies reported mild or no adverse effects; the other 4 studies did not mention adverse effects.

**Authors' conclusions**

Current evidence does not support the use of acupuncture. Adequately powered RCTs are required.

**CRD commentary**

The review question was clear in terms of the study design, intervention, participants and outcomes. Several relevant sources were searched and the lack of language restrictions minimised language bias. No attempts were made to locate unpublished studies, thus raising the possibility of publication bias. Two reviewers independently selected studies, assessed validity and extracted the data, thus reducing the potential for bias and errors. A modification of the Jadad scale was used to assess the validity of all studies; this scale was designed for RCTs and was not appropriate for assessing the quality of the uncontrolled studies. The narrative synthesis was appropriate in view of the differences between the studies, and the quality of studies was taken into account when reaching conclusions. Overall, this was a well-conducted review and the authors' conclusions are likely to be robust.

**Implications of the review for practice and research**

Practice: The authors did not state any implications for practice.

Research: The authors stated that adequately powered RCTs that assess clinically relevant outcomes are required to assess the effects of acupuncture as an adjunctive treatment for patients with cancer.

**Bibliographic details**

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