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Traditional herbal medicine for cancer pain: A systematic review and meta-analysis

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KEYWORDS
Traditional herbal medicine;
Cancer pain;
Systematic review;
Meta-analysis

Summary
Background: The effectiveness of traditional herbal medicine (THM) as an adjunctive therapy for cancer pain is unclear.
Objective: To assess the effectiveness of THM as an adjunctive therapy for cancer pain using randomized controlled trials (RCTs).
Methods: Five electronic databases, including those from the UK and China, were systematically searched for the period before September 2013. All RCTs involving the use of THM in combination with conventional cancer therapy for cancer pain were included.
Results: Twenty-four RCTs involving 4889 patients with cancer pain were systematically reviewed. Among them, nine studies of 952 patients reported a significant decrease in the number of patients with cancer pain in the treatment group. Four studies of 1696 patients reported a significant decrease in the degree of pain in the treatment group.
Conclusion: The results of these studies suggest that THM combined with conventional therapy is efficacious as an adjunctive therapy for patients with cancer pain. However, more research, including well-designed, rigorous, and larger clinical trials, are necessary to address these issues.

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Contents

Introduction

The International Association for the Study of Pain (IASP) is an international professional organization promoting research, education, and policies related to pain management. The often-quoted IASP definition of pain as ''an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage'' is derived from a 1964 definition by Harold Merskey. Although cancer encompasses multiple physical symptoms, the symptom of pain is often cited as most critical. Pain is one of the most common symptoms of cancer, and its intensity increases as the stage of cancer advances. A meta-analysis reported cancer pain in 64% of patients with metastatic disease, 59% of patients receiving antineoplastic therapy, and 33% of patients who had received curative cancer treatment.[1] In Asia, traditional herbal medicine (THM) is frequently combined with Western approaches to treat cancer, usually in regimens that combine various traditional Asian herbs into one treatment strategy. Alternative medicine has been used to meet patient needs in lieu of or as an adjunct to conventional medicine.[2] More than half of patients treated with traditional Asian herbs report effective relief of their symptoms, including pain.[3] About 41—62% of patients with cancer use traditional Asian herbs as an alternative therapy.[4,5] Clinical trials suggest that Asian THM may alleviate cancer pain with no adverse effects. However, a scientific evaluation of the effect of traditional Asian herbs on pain is lacking, and safety and toxicity are concerns.

The effectiveness of traditional Asian herbs is controversial among current practitioners of complementary alternative medicine. To date, no systemic review of the oral administration of traditional Asian herbs for cancer pain has been conducted. Thus, we conducted this systemic review to summarize and critically assess the evidence from randomized controlled trials (RCTs) showing that traditional Asian herbs are effective for reducing cancer pain. Indeed, several RCTs have reported that Asian THM is effective against cancer pain. Thus, we conducted this study as a follow-up to the systematic review conducted by Ling et al.[6] to update research in this area.

Materials and methods

Search strategy

The following sources were searched from their inception to September 2013: The Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, the Allied and Complementary Medicine Database, and the Cumulative Index to Nursing and Allied Health Literature.

The reference lists of the articles were checked for further relevant publications, and experts were asked for information concerning any additional trials. An additional manual search for relevant journals, symposia, and conference proceedings was performed, and all identified publications were cross-referenced. When necessary, personal contact was made with the authors of the published studies to request additional data.

The search terms used were cancer pain [TIAB] OR cancer patient [TIAB] OR cancer patients [TIAB] OR ((Neoplasms[MeSH] OR Neoplasms*[TI] OR Cancer*[TI] OR Tumor*[TI] OR Tumor*[TI] OR Carcinoma[MeSH] OR Carcinoma*[TI] OR Adenocarcinoma[MeSH] OR Adenocarcinoma*[TI] OR adenomatous[TI] OR Lymphoma[MeSH] OR lymphom*[TI] OR lymphedema*[TI] OR Sarcoma[MeSH] OR Sarcoma*[TI] OR ''Antineoplastic agents''[MeSH] OR antineoplas*[TI] OR ((adenom*[TI] OR adenopath*[TI]) AND malignant*[TI])) AND (PAIN[MeSh] OR PAIN MEASUREMENT[MeSh] OR PAIN CLINICS[MeSh] OR ANALGESIA''[MeSh] OR ANALGESICS''[MeSh] OR pain*[TIAB] OR analges*[TIAB]))). Each database was searched independently, as each database searched for this review possessed its own subject headings. No language restrictions were imposed.

Study selection

We selected only articles on RCTs; quasi-randomized or non-randomized trials were excluded. We also excluded articles on animal or *in vivo* experiments. Studies in which THM was not orally administered were also excluded.