A systematic review of the effectiveness of Chinese herbal medication in symptom management and improvement of quality of life in adult cancer patients

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CRD summary
This review aimed to identify and evaluate evidence on the clinical effects of Chinese herbs in cancer, focusing on symptom management, quality of life and survival. The authors’ assertion that the evidence reviewed was too methodologically weak to draw any firm conclusions appears to be reliable.

Authors’ objectives
To identify and evaluate evidence on the clinical effects of Chinese herbs in cancer, focusing on symptom management, quality of life and survival.

Searching
The Cochrane Library, MEDLINE, EMBASE, LILACS, AMED, CINAHL and Current Controlled Trials register were searched from 1990 to March 2007 for relevant studies, published in full, in any language. Search terms were reported. The authors also handsearched a range of journals and scanned the reference lists of retrieved studies to identify any further relevant evidence.

Study selection
Eligible studies included randomised and non-randomised clinical controlled trials (RCTs and CCTs) evaluating Chinese herbs (intended to impact on cancer symptoms, treatment-induced toxicities, quality of life or survival) in adult patients diagnosed with cancer and receiving chemotherapy, radiotherapy, or hormone therapy. The primary outcome of interest was improvement in symptoms or side effects of cancer treatments. Secondary outcomes were quality of life and survival.

The included studies evaluated a wide range of Chinese herbs and doses, most of which were administered orally. These studies incorporated a wide range of cancer diagnoses, including oesophageal, liver, breast, lung, gastric, colorectal, and head and neck cancer. The majority of studies were conducted in China and were reported in Chinese.

The authors did not state how the studies were selected for the review.

Assessment of study quality
Randomisation, blinding and loss to follow-up were assessed according to the Jadad criteria. Studies could score up to a maximum of five points, with trials scoring zero considered of inadequate methodological quality.

The assessment appeared to have been carried out by more than one reviewer, with disagreements resolved by consensus.

Data extraction
Data on study characteristics and outcomes were independently extracted by two reviewers, with disagreements resolved by discussion.

Methods of synthesis
Studies were combined in a narrative synthesis, arranged by outcome.

Results of the review
A total of 49 studies (n=3,992 patients) were included in the review. Thirty-five studies were RCTs, although all but one was considered to be of inferior methodological quality.
Sixteen studies reported that Chinese herbs helped prevent or alleviate the side effects of conventional therapies. One study reported that shenmai injection reduced time to healing after operation. Another study concluded that Chinese herbs accelerated wound healing and decreased pain.

Four studies reported some form of symptom improvement (e.g. nausea, diarrhoea), although not in all the symptoms examined. One study explicitly reported no difference in symptoms measured and another reported no difference in pain. Ten studies reported an improvement in quality of life, one reported no effect, and one reported worsening of psychosocial indicators.

Eleven studies reported some tumour inhibitory effect of Chinese herbs in stage I and II cancers. Three studies reported lower incidence of relapse.

Twelve studies reported significant improvement in survival rates, and one study reported a non-significant improvement.

None of the studies reported on the side-effects of Chinese herbs.

**Authors' conclusions**
The number of studies reporting positive results was high enough to suggest that Chinese medicinal herbs may have a role in cancer care. However, as their methodological quality was low, more methodologically rigorous studies are needed before any firm conclusions can be drawn.

**CRD commentary**
This review was based on a question that was clearly but broadly defined in terms of the participants, interventions, outcomes and study designs of interest. A range of sources were searched without language restrictions in order to identify all the relevant evidence, although the authors did not state why no attempt was made to identify studies published before 1990. Efforts were made to minimise errors and bias in the validity assessment and data extraction of studies. It is not clear whether such safeguards were in place when initially selecting studies for the review. The decision not to statistically pool results was appropriate, given the clear differences between included studies, but the presented narrative synthesis gave little more information than the number of studies reporting positive results. The authors did evaluate the quality of these studies, and discussed the limitations of the included evidence in detail. Their statement, that the evidence reviewed was too methodologically weak to draw any firm conclusions, appears to be reliable.

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

**Practice:** The authors stated that established clinical practice should not be changed on the basis of these weak findings.

**Research:** The authors stated that future trials of Chinese herb use in cancer patients should be double-blind, use identical placebos, report randomisation, allocation concealment, follow-up data and objective outcome measures. They added that initial feasibility or pilot studies should be conducted in patients with poor prognoses and shorter survival times.

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