Ayurvedic medicine for rheumatoid arthritis: a systematic review

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CRD summary
This generally well-conducted review assessed the effectiveness of Ayurvedic medicine for rheumatoid arthritis. The authors concluded that there was no clear evidence from the few trials found that Ayurvedic medicine benefited patients with this condition. The authors' conclusions reflect the limited evidence available from the few poor-quality studies identified, and are likely to be reliable.

Authors' objectives
To assess the effectiveness of Ayurvedic medicine for the treatment of patients with rheumatoid arthritis (RA).

Searching
MEDLINE (1969 to March 2003), EMBASE (1985 to February 2003), AMED (1980 to March 2003), the Cochrane Controlled Trials Register (October 1997 to March 2003) and the abstract service of the Central Council for Research in Ayurveda and Siddha (1976 to March 2003) were searched for studies published in any language. In addition, one named Sri Lankan and three named Indian journals and the authors' personal files were searched. The search terms were reported.

Study selection
Study designs of evaluations included in the review
The review stated that randomised controlled trials (RCTs) were included. Three of these were placebo-controlled. Controlled studies that mentioned the words 'at random' and 'randomly' but were not clearly RCTs were also included.

Specific interventions included in the review
Studies of any form of oral or topical Ayurvedic medicine were eligible for inclusion. In the review, Ayurvedic medicine was defined as 'the administration of oral remedies following the principle of Ayurveda'. Studies of therapies other than herbal medicines were excluded, as were studies of single herbs that did not adhere to the principles of Ayurveda. The included studies compared commercially available preparations or traditional therapeutic regimens with placebo or another Ayurvedic medicine (details of the preparations used were reported).

Participants included in the review
Studies of patients with RA were eligible for inclusion. Studies that only included patients with osteoarthritis were excluded. Most of the included studies diagnosed patients on the basis of clinical symptoms and blood tests. Where reported, the age of the participants ranged from 10 to 80 years.

Outcomes assessed in the review
Inclusion criteria for the outcomes were not specified. The included studies assessed clinical improvement, pain, morning stiffness, joint swelling, Stanford Health Assessment Questionnaire score, American College of Rheumatology (ACR) scale, blood tests and adverse effects.

How were decisions on the relevance of primary studies made?
Two Ayurvedic physicians handsearched the Sri Lankan and Indian journals. No other details of the methods used to select studies were reported.

Assessment of study quality
Validity was assessed and scored using the Jadad scale, which considers the reporting and handling of randomisation, blinding, and the handling of withdrawals. The maximum possible score was 5. Two reviewers independently assessed validity and any disagreements were resolved through arbitration.
Data extraction
Two reviewers independently extracted most of the data and any disagreements were resolved through arbitration; one reviewer extracted data from 2 studies (reported in Sinhalese and German, respectively). The results were extracted and used to calculate the difference between treatments where this was not reported. Significance levels were also extracted.

Methods of synthesis
How were the studies combined?
The studies were combined in a narrative. Each study was described in the text, with additional descriptive information presented in the accompanying tables.

How were differences between studies investigated?
Differences between the studies were discussed in the text.

Results of the review
Seven studies that might have been RCTs (see Study Design) were included (n=457 from tables).

One study was high quality (Jadad score of 5); the others were poor quality. Two studies reported triple-blinding. Major flaws included incomplete reporting, results not reported for either all participants or for the total duration of the trial, lack of statistical analysis, and the use of an intervention that was not fixed.

Ayurvedic medicine versus placebo (3 trials).
The highest quality RCT (182 entered, 165 completed) found no statistically significant difference between Ayurvedic medicine and placebo for the primary study outcome of a 20 to 50% improvement in specified variables or a 20% improvement in the ACR scale. The other 2 trials were incompletely reported; one showed an improvement with Ayurvedic medicine compared with placebo, while the other showed no significant difference between Ayurvedic medicine and placebo.

Ayurvedic medicine versus another Ayurvedic medicine (4 trials). The studies were difficult to interpret since no Ayurvedic medicine had been proven to be of benefit. The studies either showed no significant difference or reported insufficient data to determine the effects.

Adverse effects (3 trials).
Adverse effects with Ayurvedic medicine included anorexia, gastrointestinal problems, weight loss, pruritus, dermatitis, joint complaints, stomatitis and exanthema.

Authors' conclusions
Few trials assessed Ayurvedic medicine for RA and there was no clear evidence that Ayurvedic medicine benefited patients with this condition.

CRD commentary
The review addressed a clear question that was defined in terms of the participants, intervention and study design. Several relevant sources were searched and attempts were made to minimise language and publication bias. Methods were used to minimise errors and bias in the assessment of validity and extraction of data, but it was unclear whether similar steps were taken in the study selection process. Validity was assessed using established criteria and the results of the assessment were discussed in the text. There was adequate information on the included studies. Given the differences between the generally poor-quality included studies, a narrative synthesis was appropriate. The synthesis took study quality into account. This was generally a well-conducted review. The authors' conclusions reflect the limited evidence from the few poor-quality studies identified, and are likely to be reliable.
Implications of the review for practice and research

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

Research: The authors stated that more rigorous research into Ayurvedic medicine is required, and that future studies must be of a higher quality and meet acceptable standards for study design.

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