Complementary and alternative medicine use in juvenile idiopathic arthritis: a systematic review of prevalence and evidence

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CRD summary
The authors concluded that results for intervention studies of complementary and alternative medicines for juvenile idiopathic arthritis were preliminary and that methodologically rigorous studies were required. The authors' conclusions appeared appropriate due to limited evidence from three small studies of uncertain quality. Lack of reporting of review methods made it difficult to be certain of the reliability of reported findings.

Authors' objectives
To evaluate outcomes of complementary and alternative medicines for juvenile idiopathic arthritis (JIA).

The review also assessed the prevalence and determinants of complementary and alternative medicines use, but this abstract refers only to the evaluation of outcomes.

Searching
MEDLINE, EMBASE, AMED and The Cochrane Library were searched to October 2008. Search terms were reported. Programmes of four specified conferences were screened. Only studies published in English were eligible.

Study selection
Intervention studies that evaluated complementary and alternative medicines in patients with JIA were eligible for inclusion. The included studies evaluated the following complementary and alternative medicine interventions: herbal therapy with *Tripterygium wilfordii* Hook F (TWHF); an immediate psychological intervention based on relaxation compared with delayed intervention; and massage versus relaxation therapy. Dosage of TWHF was between 1.8g and 3.6g of raw herb in 15mL to 30mL of a 46% ethanol solution, given daily in separate doses. Cointerventions included first-line or disease modifying antirheumatic drugs. Most participants were female. Mean or median age ranged from 10 to 14 years, where reported. Duration of disease ranged from 1.8 to 5.6 years. Studies in the review evaluated pain ratings, joint motion, painful joints and morning stiffness.

The authors did not state how studies were selected for inclusion.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors did not state how data were extracted for the review.

Methods of synthesis
The studies were combined in a narrative synthesis.

Results of the review
Three studies were included: two randomised controlled trials (n=8 and 20) and one case review (n=6 with JIA).

One RCT (n=8) reported no significant difference in children's pain ratings between immediate and delayed psychological treatment, but reported significantly improved maternal pain ratings in the immediate treatment group; mean maternal and child pain scores were improved from baseline in the intervention group.

One RCT (n=20) reported that massage was associated with a significant reduction in present pain, pain in past week, number of painful points, parental reports of pain measures and physician assessment of pain and morning stiffness.
compared to relaxation.

The case review (n=6 with JIA) reported that all JIA patients treated with TWHF either alone or in combination with first-line antirheumatic drugs reported excellent pain relief and improved or normal joint motion.

**Authors' conclusions**

Results for intervention studies of complementary and alternative medicine therapy for JIA were preliminary. Methodologically rigorous studies were required.

**CRD commentary**

The review question was clear and supported by appropriate inclusion criteria for participants and intervention. No inclusion criteria were defined for outcomes or study design. Several relevant sources were searched, but no attempts were made to minimise publication and language biases. the restriction to studies in English meant that potentially relevant Chinese studies may have been missed. Methods used to select studies and extract data were not described and this raised the potential for reviewer error and bias. Study validity was not assessed and this made it difficult to assess the reliability of review findings. In some studies, anti-rheumatic drugs were used as cointerventions and this made it difficult to isolate the effects of complementary and alternative medicine therapy. In view of the small number of diverse studies, a narrative synthesis was appropriate. The description of the review findings as preliminary appeared appropriate given the reliance upon limited evidence from three small studies of uncertain quality. Lack of reporting of review methods made it difficult to be certain of the reliability of reported findings.

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

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

**Research:** The authors stated that complementary and alternative medicine therapies for JIA required further evaluation in rigorous methodologically sound trials. Research was also required to identify potentially harmful effects of complementary and alternative medicines such as interaction between complementary and alternative medicines and some prescription medicines.

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