Acupuncture for pelvic and back pain in pregnancy: a systematic review

Ee C C, Manheimer E, Pirotta M V, White A R

CRD summary
The authors concluded that there is limited evidence to support acupuncture use in the treatment of pregnancy-related pelvic and back pain. This was a well conducted review and, despite the small number of included studies, the authors’ conclusions are likely to be reliable.

Authors' objectives
To assess the effectiveness of needle acupuncture in the treatment of pelvic and back pain in pregnancy.

Searching
MEDLINE was searched from inception to November 2006. Cochrane Central Register of Controlled Trials, EMBASE, CINAHL, AMED, National Library for Health Complementary and Alternative Medicine Specialist Library and Acubriefs were searched from inception until July 2006. Search terms were reported. Computer Retrieval of Information on Scientific Projects and Current Controlled Trials were searched for ongoing trials. Acupuncture researchers in the USA, UK, Sweden, Europe and Australia were contacted for details of unpublished trials. The reference lists of identified articles were searched. The search was restricted to English language articles. No restriction was placed on publication status.

Study selection
Randomised controlled trials (RCT) of acupuncture in pregnant women with pelvic and/or back pain were eligible for inclusion. Acupuncture was defined as needle insertion into acupoints, whether the acupuncture was defined as traditional Chinese, Western, segmental, tender point or other. Control groups eligible for inclusion were placebo acupuncture, no treatment, standard treatment or comparison to another treatment. Outcomes eligible for inclusion were pain, disability, overall improvement, analgesic use, time off work and adverse events. Studies of laser therapy without needle insertion or auricular acupuncture without body acupuncture and studies of women who may have a non-musculoskeletal cause for their pain were excluded.

Included studies were of Chinese acupuncture on auricular points with body acupuncture where necessary, Chinese acupuncture plus tender points and mixed Chinese and Western acupuncture combined with standard treatment. Where stated, duration of treatment ranged from 4-6 weeks. Some studies permitted cointerventions as needed. Included studies were of mixed back/pelvic pain. Participants were not predefined but included studies consisted of women in their second or third trimester with a median age ranging from 28.6 years to 30.3 years. Where stated, the majority of women were multiparous. Control groups in included studies were physiotherapy plus physical therapies, no additional treatment with permitted cointerventions, standard treatment (advice, exercises and pelvic belt) and stabilising exercises plus standard treatment. Outcomes reported in the review were pain, function, patient satisfaction, analgesic use and adverse events. All included studies were carried out in Sweden.

Two reviewers independently assessed study eligibility.

Assessment of study quality
Two reviewers independently performed the validity assessments using two scales; a modified version of the Jadad and a modified version of the Cochrane Back Review Group Criteria. Jadad is a five item scale assessing adequacy of randomisation, participant blinding, dropouts and withdrawals. A score of two or less out of a potential five was considered to be indicative of a poor quality trial. Cochrane Back Review Group Criteria is a twelve item checklist assessing randomisation, allocation concealment, sample size calculation, participant, caregiver and outcome assessor blinding, use and reporting of cointerventions, adequacy or treatment, withdrawal rate, use of intention-to-treat analysis and timing of outcome assessment. A score of five or less out of a potential 12 was considered to be indicative of a poor quality trial.

Data extraction
Data were independently extracted by two reviewers. Authors were contacted for missing trial data and, in one study, unpublished end of trial data were used.

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

Results of the review
Three RCTs were included for review (n=448). All studies scored three out of five on the Jadad scale. On the Cochrane Back Review Group scale one study scored three, one scored six and one scored seven. Overall two studies were deemed good quality and one study was deemed poor quality. Loss to follow-up was high across all studies and intention to treat analysis was not performed.

The highest quality trial (n=386) found that acupuncture plus standard treatment was superior to standard treatment alone. Standard treatment plus stabilising exercises reduced pain in second trimester women with pelvic pain at one week (p<.001 and p<.05 respectively), at the end of treatment (p values not reported) and when turning in bed (p<.001 for standard treatment comparison). Two other RCTs reported that acupuncture was superior to no additional treatment (p<.01) and individualised physiotherapy (p<.01) in reducing pain. However, there were methodological weaknesses in both of these trials.

No serious adverse events were reported. There were a small number of reports of minor adverse events such as local pain or bruising, sweating, nausea, weakness and tiredness.

Authors’ conclusions
There is limited evidence to support acupuncture use in the treatment of pregnancy-related pelvic and back pain.

CRD commentary
The review addressed a clear question with well-defined inclusion criteria. Several relevant databases were searched and attempts were made to identify unpublished data, thereby minimising the risk of publication bias. However, the search was restricted to English language publications and important data might have been missed. Appropriate steps were taken within the study selection, data extraction and validity assessment processes to minimise the risk of reviewer error and bias. Suitable measures were used to assess the methodological quality of included studies and were used to inform the results. The fact that all included studies were carried out in Sweden may affect the generalisability of findings to other countries. The decision to use a narrative analysis was appropriate given the heterogeneity of included studies. This was a well conducted review and, despite the small number of included studies, the authors' conclusions are likely to be reliable.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: Further research is needed using rigorous methodology and reported according to the Standards for Reporting Interventions in Controlled Trials of Acupuncture (STRICTA) guidelines. Evidence could be strengthened by a consensus on the nature, aetiology and standard treatment of pelvic and back pain in pregnancy.

Funding
General Practice Education and Training Australia.
US National Institutes of Health, National Center for Complementary and Alternative Medicine (NCCAM), R24AT001293.
DH-National Coordinating Centre for Research Capacity Development (NCC RCD)

Bibliographic details

**PubMedID**
18313444

**DOI**
10.1016/j.ajog.2007.11.008

**Other publications of related interest**

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Acupuncture Analgesia; Back Pain /therapy; Female; Humans; Pelvic Pain /therapy; Pregnancy; Pregnancy Complications /therapy

**AccessionNumber**
12008102610

**Date bibliographic record published**
03/11/2008

**Date abstract record published**
02/03/2009

**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.