Acupuncture for treating menopausal hot flushes: a systematic review

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CRD summary
The review investigated whether acupuncture was effective in reducing the frequency or severity of hot flushes in menopausal women. The authors concluded that there was no convincing evidence that acupuncture is beneficial for these women. The conclusion is likely to be reliable, given the carefully conducted review and relatively high quality of the included studies.

Authors' objectives
To assess the effectiveness of acupuncture for treating menopausal hot flushes.

Searching
MEDLINE, AMED, British Nursing Index, CINAHL, EMBASE, PsycINFO, The Cochrane Library, six Korean and four Chinese medical databases. Search terms were reported. The authors' files and the Focus on Alternative and Complementary Therapies journal were searched by hand. No language restrictions were imposed. Abstracts and dissertations were eligible if they gave sufficient information.

Study selection
Parallel or cross over randomised controlled trials (RCTs) of real needle versus sham acupuncture in women with menopausal hot flushes (perimenopausal, menopausal or postmenopausal women or those with surgically induced menopause) were eligible for inclusion. Studies of women with radiation induced or chemotherapy induced menopause or with breast cancer were excluded.

The included studies were based in Sweden, USA and Korea. Studies involved women aged 43 to 65 years with (where reported) four or more moderate to severe hot flushes per day. Most studies included only postmenopausal women, although some studies included perimenopausal and postmenopausal women. Treatment ranged from nine to 16 sessions of either manual or electro acupuncture; sessions each lasted 20 to 30 minutes. Both classical Chinese and Western formula acupuncture were included. Control groups received either non-penetrating or minimally penetrating sham acupuncture, mostly at non-acupuncture points. Follow-up ranged from four to 24 weeks. The primary outcome measure was mean change in hot flush frequency, severity or an index (frequency x severity), assessed either subjectively (on a visual analogue scale), through a diary of symptoms or using validated scoring systems of generic vasomotor symptoms.

Two reviewers independently read all articles, and disagreements were resolved by consensus and discussion with a third reviewer.

Assessment of study quality
Quality was independently assessed by two reviewers using the modified Jadad scale, based on the description of randomisation, blinding and withdrawals. Blinding was scored positive if the outcome assessor was blinded to the intervention, since therapists can not be blinded. Allocation concealment was assessed using the Cochrane definition. Each study was awarded a score for methodological quality between 3 and 5 points.

Data extraction
Data were abstracted independently by two reviewers. The difference in mean change in outcome measured between intervention and control group was calculated. The variance of the changes was imputed using a correlation factor of 0.5.

Methods of synthesis
Weighted mean differences and 95% confidence intervals were calculated. Differences between studies were assessed with a $X^2$ test for heterogeneity. The authors planned to use a random-effects model to synthesise homogenous studies,
but did not do so because of statistical and clinical heterogeneity.

Results of the review
Six RCTs (309 participants) were included in the review. All scored between 3 and 5 on the Jadad five-point scale.

Five studies found no difference in frequency, severity or frequency x severity of hot flushes between the intervention and control groups. One RCT of manual acupuncture versus sham acupuncture on non acupuncture points found a beneficial effect of acupuncture on hot flush severity, but not frequency.

Mild adverse events were noted in both groups (four RCTs).

Authors’ conclusions
There was no convincing evidence that acupuncture was beneficial for menopausal women who experienced hot flushes.

CRD commentary
The review addressed a clear research question. Study design, intervention and participant inclusion criteria were clearly stated; no criteria for outcomes were specified. The search criteria appeared appropriate and many databases were searched, which reduced the risk of bias in the results. There was a low risk of language bias, as no language limitations were placed on the searches and a number of foreign language databases were searched. No formal assessment of publication bias was undertaken. The authors tried to minimise errors and bias in the review process by involving two reviewers in study selection, quality assessment and data extraction. Details of the studies and the quality assessment were clearly stated. A narrative synthesis was appropriate given the differences between studies in terms of acupuncture methods, control groups and outcomes assessed. The results of the review are likely to be reliable, given the carefully conducted review and relatively high quality of the included studies.

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

Research: The authors stated that further rigorous RCTs of the effect of acupuncture for treating menopausal hot flushes were warranted.

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