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[Intervention Review]

Acupuncture for tension-type headache

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ABSTRACT

Background

Acupuncture is often used for tension-type headache prophylaxis but its effectiveness is still controversial. This review (along with a companion review on 'Acupuncture for migraine prophylaxis') represents an updated version of a Cochrane review originally published in Issue 1, 2001, of *The Cochrane Library*.

Objectives

To investigate whether acupuncture is a) more effective than no prophylactic treatment/routine care only; b) more effective than 'sham' (placebo) acupuncture; and c) as effective as other interventions in reducing headache frequency in patients with episodic or chronic tension-type headache.

Search strategy

The Cochrane Pain, Palliative & Supportive Care Trials Register, CENTRAL, MEDLINE, EMBASE and the Cochrane Complementary Medicine Field Trials Register were searched to January 2008.

Selection criteria

We included randomized trials with a post-randomization observation period of at least 8 weeks that compared the clinical effects of an acupuncture intervention with a control (treatment of acute headaches only or routine care), a sham acupuncture intervention or another intervention in patients with episodic or chronic tension-type headache.

Data collection and analysis

Two reviewers checked eligibility; extracted information on patients, interventions, methods and results; and assessed risk of bias and quality of the acupuncture intervention. Outcomes extracted included response (at least 50% reduction of headache frequency; outcome of primary interest), headache days, pain intensity and analgesic use.

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Main results

Eleven trials with 2317 participants (median 62, range 10 to 1265) met the inclusion criteria. Two large trials compared acupuncture to treatment of acute headaches or routine care only. Both found statistically significant and clinically relevant short-term (up to 3 months) benefits of acupuncture over control for response, number of headache days and pain intensity. Long-term effects (beyond 3 months) were not investigated. Six trials compared acupuncture with a sham acupuncture intervention, and five of the six provided data for meta-analyses. Small but statistically significant benefits of acupuncture over sham were found for response as well as for several other outcomes. Three of the four trials comparing acupuncture with physiotherapy, massage or relaxation had important methodological or reporting shortcomings. Their findings are difficult to interpret, but collectively suggest slightly better results for some outcomes in the control groups.

Authors' conclusions

In the previous version of this review, evidence in support of acupuncture for tension-type headache was considered insufficient. Now, with six additional trials, the authors conclude that acupuncture could be a valuable non-pharmacological tool in patients with frequent episodic or chronic tension-type headaches.

PLAIN LANGUAGE SUMMARY

Acupuncture for tension-type headache

Patients with tension-type headache suffer from episodes of pain which is typically bilateral (affects both sides of the head), pressing or tightening in quality, mild to moderate in intensity, and which does not worsen with routine physical activity. In most patients tension-type headache occurs infrequently and there is no need for further treatment beyond over-the-counter pain killers. In some patients, however, tension-type headache occurs on several days per month or even daily. Acupuncture is a therapy in which thin needles are inserted into the skin at defined points; it originates from China. Acupuncture is used in many countries for tension-type headache prophylaxis - that is, to reduce the frequency and intensity of tension-type headaches.

We reviewed 11 trials which investigated whether acupuncture is effective in the prophylaxis of tension-type headache. Two large trials investigating whether adding acupuncture to basic care (which usually involves only treating unbearable pain with pain killers) found that those patients who received acupuncture had fewer headaches. Forty-seven percent of patients receiving acupuncture reported a decrease in the number of headache days by at least 50%, compared to 16% of patients in the control groups. Six trials compared true acupuncture with inadequate or 'fake' acupuncture interventions in which needles were either inserted at incorrect points or did not penetrate the skin. Overall, these trials found slightly better effects in the patients receiving the true acupuncture intervention. Fifty percent of patients receiving true acupuncture reported a decrease of the number of headache days by at least 50%, compared to 41% of patients in the groups receiving inadequate or 'fake' acupuncture. Three of the four trials in which acupuncture was compared to physiotherapy, massage or relaxation had important methodological shortcomings. Their findings are difficult to interpret, but collectively suggest slightly better results for some outcomes with the latter therapies. In conclusion, the available evidence suggests that acupuncture could be a valuable option for patients suffering from frequent tension-type headache.