



Headaches and Acupuncture Treatment

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Headaches

Headaches are a common presenting problem in primary care. The main focus of treatment is usually to find the etiology and eliminate the causal factors.

To assess the etiology and determine the cause of headaches, physicians examine the level of stress in an individual's life. Physical causes that may contribute to cephalgia include:

- poor posture,
- degenerative cervical spine conditions and
- temporal mandibular joint dysfunction.

Keeping a record of one's diet can help correlate headache frequency to certain foods and then those foods appearing to cause headaches can be eliminated. Unfortunately, there is often no cause to be found.

Acupuncture

Acupuncture, a component of Traditional Chinese Medicine (TCM), has been used for thousands of years in the treatment of headaches. The National Institute of Health Consensus Conference on Acupuncture concluded that acupuncture may be useful as an adjunct treatment for headaches. The problem with doing research is that the outcome of the treatment is often dependent on:

- the skill of the acupuncturist,
- the points that are used and
- the modality of acupuncture.

As well, acupuncture may be used based on a TCM diagnosis and, at other times, on a Western Medical diagnoses.

Administration

Acupuncture can be administered as:

- transcutaneous nerve stimulation,
- moxibustion,
- laser,
- ear acupuncture, or
- plain needle insertion.

Clinical reviews

A Cochrane review analyzed twenty-six randomized controlled trials (RCTs), with a total of 1,151 patients included. Of these trials, 16 were conducted using patients with migraine headaches. Six patients specifically had tension-type headaches and four had a variety. The majority of trials had methodological and/or reporting shortcomings.

In eight of the 16 trials comparing true acupuncture to placebo in migraine and tension-type headache patients, acupuncture was reported to be significantly superior to placebo; in four trials there was a trend in favor of true acupuncture and in two trials there was no difference between the two interventions. The 10 trials comparing acupuncture with other forms of treatment yielded contradictory results. The reviewers concluded that "overall, the existing evidence supports the value of acupuncture for the treatment of idiopathic headaches. However, the quality and amount of evidence is not fully convincing."¹

A review in the *Clinical Journal of Pain* evaluated 27 clinical trials in the treatment of primary headaches. Primary headaches included:

- migraine headache,
- tension-type headache and
- mixed forms.

In the majority of the trials (23 trials out of 27 trials), it was concluded that acupuncture offered benefits in the treatment of headaches. However, because of methodological weaknesses, the authors called for further high-quality studies to be carried out any before recommendation could be made.²

Another review of 13 RCTs with a total of 1,107 participants evaluated acupuncture's impact on migraine. Seven trials of the 13 trials reviewed were classified as low-quality (scoring two or fewer points) according to methodological quality assessment of Jadad, *et al.* The majority of low scoring trials displayed positive results favouring acupuncture treatment for migraine. The remaining six studies scored high methodological quality scores, designating them as less likely to be biased. Two of the studies that received high

methodological quality scores showed acupuncture to be effective. Three studies that achieved consistently high scores (for reporting acupuncture and methodological quality) and were theoretically the most reliable studies all had negative outcomes.³

Additional clinical studies

In a RCT of 114 migraine patients extending over a period of 24 weeks, eight sessions to 15 sessions of acupuncture were found to be as effective and as safe as 100 mg q.d. to 200 mg q.d. of metoprolol in the prophylactic treatment of migraines under conditions similar to routine care. The proportion of responders (who experienced a reduction in migraine attacks was $\geq 50\%$) was 61% for acupuncture and 49% for metoprolol. Both physicians and patients reported fewer adverse effects in the acupuncture group. Due to insufficient recruitment and the high drop-out in the metoprolol group, the authors advised that their results be interpreted with caution.⁴

Seventy-four patients with chronic daily headaches were randomized to receive either medical management provided by neurologists or medical management, along with 10 acupuncture treatments. Patients who received only medical management did not demonstrate improvement in any of the standardized measures. Patients who received medical management plus acupuncture achieved an improvement of 3.0 points on the Headache Impact Test and an increase of > eight points on role limitations due to:

- physical problems,
- social functioning and
- general mental health domains according to the Short Form 36 Health Survey.

Patients who received acupuncture were 3.7 times more likely to report less suffering from headaches at six weeks (absolute risk reduction 46%; number needed to treat two).⁵

In a RCT studied by Vickers, *et al*,⁶ a long-lasting benefit in headache scores, notably in migraine patients, was found. Patients who were treated with acupuncture:

- used less medication,
- made fewer visits to their doctors and
- took fewer days away from work.

In Italy, Allais, *et al*⁷ found acupuncture to be as effective as flunarizine (a calcium channel blocker)

in reducing :

- headache frequency,
- severity and
- analgesic use in migraine without aura.


The treatment was given weekly for two months then monthly for the next four months. Acupuncture was more effective in attack frequency after two months and after four months of treatment and in treating the severity after six months of therapy. Fewer side-effects were reported with acupuncture.

Fifty patients with chronic tension-type headache were randomly assigned to treatment or placebo groups. Patients in the treatment group received low-energy laser acupuncture (three treatments per week for ten sessions). The placebo group was treated in a similar way, except that the output power of the equipment was set to zero. The acupuncture group (as compared to the placebo group) experienced significant improvements in:

- headache intensity,
- median duration of attacks and
- median number of days with headache per month.⁸

Three-hundred and two patients with migraine headaches were treated with either acupuncture, sham acupuncture, or served as a waiting list control. Acupuncture and sham acupuncture consisted of 12 sessions per patient over eight weeks. Acupuncture was no more effective than sham acupuncture in reducing migraine headaches, although both interventions were more effective than a waiting list control.⁹

Final comment

Acupuncture has been shown to be effective for the management of headaches. Physicians interested in acupuncture training can contact the Acupuncture Foundation of Canada Institute (www.afcinstitute.com), where courses are provided for physicians to learn skills they could apply in their practices. 

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