

ARRC PR Fact Sheet 4

ACUPUNCTURE FOR HEADACHE

Headache is a common condition making up nearly 2% of all GP consultations and about 4,000 hospital admissions and 10,000 outpatient attendances annually. The two most important categories of headache are migraine and tension-type. Migraine alone affects about 12% of the population and results in substantial numbers of work days lost and hence huge economic costs.

Migraine is a paroxysmal headache with recurrent attacks that can last up to 3 days. It may be preceded by a visual aura and accompanied by nausea and vomiting. Headaches are often unilateral, mostly in the temporal area. They are classed as vascular headaches, the pain being due to dilation and spasm of the carotid artery, itself caused by partial dysfunction of the nerve centres associated with vasomotor control. Current ideas are of a hyper-excitable brain. The aetiology is complex and not easily understood: it may involve emotional strain, overwork, hormonal changes, specific environmental factors such as foodstuffs, and often familial links. Western medication fails to offer sufficient prophylactic effect in a significant proportion of the population.

Tension-type headaches, although not vascular like migraines, again seem to be dependent more on central physiological disturbances than peripheral ones such as increased muscle tenderness.

How acupuncture works

Migrainous patients have lower opioid levels, both total and specifically β -endorphin, and acupuncture acts to bring these levels back to normal. In one study it had no effect on endorphin in cluster headache sufferers but did boost the amount of met-enkephalin, another neurotransmitter. Improvement in headaches has also been associated with increases in serotonin. These substances, especially endorphin, will act to inhibit the perception of pain, both centrally and at the spinal cord. In addition they can modulate the action of the autonomic nervous system. This would affect both the cranial blood circulation and ancillary symptoms such as nausea. The effect has been shown recently to vary in different migraine patients with the parasympathetic system mobilised to calm down the 'over-excitable' individuals but there being no effect on the 'laid-back' ones.

Given that central physiological mechanisms also seem to be the key with tension-type headaches it is likely that acupuncture works through similar pathways there.

Traditional acupuncture understanding of headache

In Traditional Chinese Medicine pain is caused by stagnation – and may be relieved by needling points that clear the appropriate channels and restore free flow through the area concerned. For headaches, the main pathologies involve blockage of Qi (energy), Yang, Blood or Phlegm/Damp. The choice of pathways and points to treat depends strongly on the location of the pain, but other characteristics of the headache, and of the person more

generally, will also go into determining the diagnosis and treatment. Headache is more closely associated with the Liver than any other organ. Stress and emotional discord register strongly on the Liver, which, if it becomes too agitated, vents the excess energy upwards into the head, especially around the eyes and on the temples.

Evidence

A. Reviews of evidence and efficacy

More acupuncture clinical trials have been carried out in the West for headache than for most other conditions. Even restricting it to the randomised controlled trials (RCTs) favoured by medical researchers there are still plenty to look at.

- A review in 2000 (Manias et al) located 27 RCTs, of which 23 showed benefits for acupuncture.
- The Royal London Homoeopathic Hospital carried out a more discerning review in 1999, which I have updated. Of 11 RCTs where true acupuncture was compared to sham: 8 favoured acupuncture (7 statistically significant) and 3 showed no difference. In 6 other RCTs, where acupuncture has been compared to standard medical treatment (usually anti-headache drugs) it was superior in all cases (5 out of 6 statistically significant).
- Even the most recent Cochrane review, the 'bible' on evidence reviews for scientists, doctors and health providers around the world, stated that 'overall, the evidence supports the value of acupuncture for the treatment of headaches'.

B. Different aspects of the effect

- Reduces the frequency and intensity of headaches in many patients
- Can reduce the use of medication
- Reduces days off work and hence is cost-effective
- Success rates of 50-80% are comparable to the results of medication, but without the side effects
- Particularly useful for the prophylactic treatment of migraine

C. Some recent examples

Liguori et al (2000)

120 patients with migraine: acupuncture v conventional medication. The acupuncture group had 4.7 fewer days off work per person per year, a saving of 1,332,000 Italian lira (or 1000 billion lira/year for the whole country).

Melchart et al (2003)

Acupuncture was as effective as Sumatriptan for stopping incipient migraines from developing into full-blown attacks (though not as effective for relieving them once developed).

Allais et al (2003)

160 patients: acupuncture v flunarizine, a common prophylactic for migraine. Acupuncture provided a better response in frequency and intensity of attacks and the amount of analgesic drug use.

Vickers et al (2004)

Results from a very large trial (400 patients) in the UK:

Pain scores: 34% improvement in the acupuncture group v 16% for standard medical treatment (significant difference)

Quality of life: acupuncture better in all respects (and significantly so in some)

Medication use: acupuncture 14% better than the control (significant)

GP visits/year: acupuncture 1.7; control 2.3

Days off work: favoured acupuncture

Cost-effectiveness: acupuncture cost more to provide but gave savings in work days, doctors' time and other NHS resources. It was calculated that there was a 90% chance that acupuncture was cost effective.

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