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## Acupuncture use for the treatment of headache prior to neurological referral

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**Abstract** Acupuncture is a popular complementary treatment for various pain syndromes. Some studies claim efficacy in the treatment of primary headache syndromes. However, data on the frequency of acupuncture use by patients with headache prior to neurological referral have not been identified. In this study, 12% of patients with headache attending general neurology outpatient clinics had already

received acupuncture; of the remainder, 73% said they would be willing to try it.

**Key words** Acupuncture • Headache • Treatment

### Introduction

“[Susan] has been suffering much from the headache and six leeches a day for ten days together relieved her so little that we thought it right to change our measures – and being convinced on examination that much of the evil lay in her gum, I persuaded her to attack the disorder there. She has accordingly had three teeth drawn, and is decidedly better, but her nerves are a good deal deranged. She can only speak in a whisper – and fainted away twice this morning ...”

Jane Austen, *Sanditon* (1817)

As this quotation shows, the difficulty in establishing the efficacy of treatments for persistent headaches is not a new one, and experimentation with new modalities, though often encouraged, may not be without side

effects. There are data supporting the efficacy of acupuncture for the treatment of headache [1] and recently a randomised controlled trial found it both efficacious [2] and cost-effective [3] for the treatment of chronic headache in primary care. Questions of efficacy aside, data showing how often acupuncture is used for the treatment of headache have not been identified. Acupuncture treatment in the United Kingdom is available on an *ad hoc* basis, sometimes from primary care practitioners, sometimes from private practitioners. There is no standardised, university-based, structure for training in acupuncture in the UK.

The aim of this study was to ascertain how often acupuncture had been used by patients with headache prior to referral to general neurology outpatient clinics. A subsidiary aim was to ascertain how many headache patients would be prepared to try acupuncture treatment, and how many would be put off by the use of needles.

## Materials and methods

Consecutive new outpatient referrals to general adult neurology clinics served by one consultant neurologist at three hospitals in north-west England over a six-month period were assessed. Those in whom the principal reason for referral or the principal complaint was headache were asked (if they had not already volunteered this information) whether they had ever had acupuncture treatment, and if so the indications for its use, how many treatment sessions were given, and its subjective efficacy. Those who had not received acupuncture were asked whether or not they would be prepared to try it as a treatment for their headaches; if not willing, reasons were sought. Diagnosis of headache syndromes was based upon internationally agreed criteria [4].

## Results

Over the 6-month period (mid April to mid October 2004), 481 new referrals were seen in 53 consecutive clinics. The principal complaint was headache in 115 (24%; 95% confidence interval [CI]: 20%–28%). Demographic and diagnostic data are shown in Table 1. Referral source was general practitioner in 105 cases and another hospital practitioner in 10. All patients gave verbal consent to answer questions about acupuncture treatment.

Twenty patients with headache (17%; 95% CI: 10%–24%) had been treated with acupuncture at some time. In 14 patients this was for headache (12% of the total headache cohort, 95% CI: 6%–18%; see Table 1 for demographic and diagnostic data), in six for other reasons (other pain syndromes: 4; obsessive-compulsive disorder: 1; smoking cessation: 1). Only three headache patients (21%) volunteered information about their previous acupuncture treatment.

The reported number of acupuncture treatment sessions for the headache patients ranged from 1 to 10 (mean=6; mode=6; median=6). Eleven reported that acupuncture was not helpful (one after initial benefit); three reported benefit (two with chronic migraine, one with migraine with aura).

Of the 95 patients who had never received acupuncture, 69 (73%; 95% CI: 64%–82%) said they would be prepared to try it if it were a recognised treatment for headache. Of the 26 expressing no interest or no opinion, 11 (12%; 95% CI: 5%–19%) made comments suggesting an aversion to needles (hated needles, were squeamish, or had a “needle phobia”).

## Discussion

The frequency of headache in this general neurology outpatient clinic population (24%), patient age and gender, and preponderance of chronic headache were similar to results in cohorts of headache patients from other general neurological outpatient clinics [5, 6].

The survey methodology was simple. Results were dependent upon patient recall, and hence liable to recall bias, but nonetheless provided some information about the frequency of acupuncture use for the treatment of headache prior to neurological referral. Acupuncture had already been used by 12%, although only one-fifth of these volunteered the fact. The apparently low efficacy of acupuncture in this cohort (3/14) is not surprising: presumably referral would not have happened had acupuncture resolved headache. No patient with fewer than 6 treatments reported benefit. No patient had 12 treatments,

**Table 1** Demographic and diagnostic data

	Headache patients	Used acupuncture for headache
<i>n</i>	115	14
Age range, years	16–78	16–78
Mean age±SEM, years	39.9±14.1	49.7±14.7
Sex ratio M:F (male %)	43:72 (37%)	4:10 (40%)
Specific diagnosis		
CTTH	58	2
FTTH	7	1
MO	11	–
MA	11	2
CM/TM	21	8
MOH	5	1
CH/TAC	2	–

CTTH, chronic tension-type headache; FTTH, frequent tension-type headache; MO, migraine without aura; MA, migraine with aura; CM/TM, chronic migraine/transformed migraine; MOH, medication overuse headache; CH/TAC, cluster headache/trigeminal autonomic cephalalgia

the limit in the randomised trial in primary care that suggested efficacy [2]. Other studies of acupuncture have shown lack of efficacy [7].

Of those not previously treated with acupuncture, the majority (nearly three-quarters) expressed interest in trying it, whereas 12% were not interested because of aversion to needles. No data about the prevalence of “needle phobia” in the general population have been identified. The problem is occasionally encountered in diabetic patients requiring insulin [8], but this is infrequent and often quickly overcome (MW Mansfield, personal communication). These data suggest that if acupuncture

became generally available for the treatment of headache, demand would probably be high, as anticipated for any new treatment, irrespective of the potential problems with needles. Although randomised trials suggest efficacy [2], the results of pragmatic (phase IV) studies might be less encouraging.

Hence, just over 10% of patients with headache attending general neurology outpatient clinics had already received acupuncture for their headache, and of the remainder nearly 75% expressed interest in trying it. It would be interesting to see if similar data emerged from specialist headache and/or migraine clinics.

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