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FPIN's Clinical Inquiries

Acupuncture for Migraine Headaches

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Clinical Question

Is acupuncture effective in decreasing the frequency of migraine headaches?

Evidence-Based Answer

Acupuncture reduces the frequency of migraine headaches when used as an adjunct to, or in place of, medical management. (Strength of Recommendation: A, based on meta-analyses).

Evidence Summary

Headache is the leading cause of lost work time in the United States.¹ Migraine headaches occur in 18 percent of women and 5 percent of men.² More than 2.1 million U.S. adults report use of all-cause acupuncture in the previous 12 months, and 10 percent received acupuncture for migraine headaches.³ In England, 21.4 percent of physicians perform acupuncture or refer patients for acupuncture.⁴ In Germany, acupuncture is the most commonly used preventive treatment for migraine headaches.⁵

The standardized definition of a decrease in migraine headache frequency is a decrease of 50 percent, based on criteria from the International Headache Society. This is in persons who have two to eight migraine attacks per month for at least one year.⁶

A 2009 Cochrane review of acupuncture and prophylaxis for migraine headaches analyzed 22 randomized controlled trials (RCTs) with 4,419 patients.⁷ Six trials compared traditional acupuncture with no prophylactic treatment or standard therapy; 14 trials compared traditional acupuncture with sham acupuncture; four trials compared traditional acupuncture with proven drug treatment; and two trials compared traditional acupuncture with relaxation techniques. At four months, traditional acupuncture reduced migraine headache frequency compared with drug treatment (standard mean difference [SMD] = -0.26; 95% confidence interval [CI], -0.41 to -0.11), and compared with no treatment (SMD = -0.43; 95% CI, -0.60 to -0.27). The authors concluded that there is consistent evidence demonstrating that traditional acupuncture is as effective as traditional migraine headache prophylaxis, but not statistically more effective than sham acupuncture (SMD = -0.18; 95% CI, -0.44 to 0.07). This is noteworthy because a 2001 Cochrane review on acupuncture and migraine headaches concluded that traditional acupuncture may have a role in headache treatment; however, the quality and amount of evidence were not convincing at the time.⁸

A critical literature review in 2007 evaluated 10 well-designed RCTs with 2,015 patients.⁹ These trials

consistently demonstrated that traditional acupuncture was associated with clinically and statistically significant improvement in clinical outcomes compared with no acupuncture. The authors concluded that acupuncture should be incorporated into existing migraine headache therapy protocols.

There is considerable controversy in the acupuncture research community regarding the role of sham acupuncture, which incorporates needle placement in nonacupuncture points. Experientially, sham treatment is not physiologically inert, which makes it difficult to fully control for placebo effects.¹⁰ Traditional acupuncture is not consistently superior to sham acupuncture, but because there may be an analgesic effect with any needling, it can be argued that studies should be designed using traditional acupuncture as the intervention and standard medical therapy as the control.

Recommendations from Others

The American Academy of Medical Acupuncture lists acupuncture as a treatment for migraine headache based on World Health Organization recommendations.^{11,12} A National Institutes of Health consensus statement determined that acupuncture has considerable value and should be expanded into conventional medicine. The statement encourages further study, but does not specifically address migraine headaches.¹³ According to the Institute for Clinical Systems Improvement, controlled studies specifically applied to migraine headache and acupuncture have produced mixed findings based on three older references.¹⁴

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