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Acupuncture for Migraine Prevention

MICHAEL J. ARNOLD, MD, and JEANNETTE M. McINTYRE, MD, *Naval Hospital Jacksonville, Jacksonville, Florida*

Clinical Question

Does whole-body acupuncture reduce episodic migraine frequency?

Evidence-Based Answer

There is moderate-quality evidence that whole-body acupuncture is effective for migraine prevention. Compared with usual care, acupuncture is more effective at reducing headache frequency by at least 50% (number needed to treat [NNT] = 4). Acupuncture reduces headache frequency when compared with sham acupuncture (NNT = 10 at follow-up). Initial benefit of acupuncture over prophylactic medication was maintained at three-month follow-up but not at six months. Assuming an initial frequency of six migraine days per month, this would be reduced to five days with usual care, four days with sham acupuncture or prophylactic medication, and 3.5 days with acupuncture.[1] (Strength of Recommendation: A, based on consistent, good-quality patient-oriented evidence.)

Practice Pointers

Migraine headaches commonly cause disability. Surveys show that 14.1% of Americans and 18.9% of women had a migraine or severe headache in the past three months.[2] The authors of this review sought to compare the effect of acupuncture vs. usual care, sham acupuncture, and prophylactic medication.

This Cochrane review included 22 randomized trials and 4,985 patients.[1] Trials were limited to patients with 15 or fewer headache days per month, and treatment was limited to whole-body acupuncture. Follow-up evaluation ranged from eight weeks to one year after treatment.

Compared with usual care, acupuncture improved headache frequency (standardized mean difference [SMD] = –0.56; 95% confidence interval [CI], –0.65 to –0.48). An SMD of 0.2 is considered a mild effect; 0.5, a moderate effect; and 0.8, a strong effect. Among patients treated with acupuncture, 41% experienced at least a 50% reduction in headache frequency vs. 17% of those receiving usual care (relative risk [RR] = 2.40; 95% CI, 2.08 to 2.76; NNT = 4 [95% CI, 3 to 6]). Patients in one trial retained the reduction in headache frequency after 12 months compared with those who received usual care (SMD = –0.36; 95% CI, –0.59 to –0.12; NNT = 7 [95% CI, 4 to 25]).

The authors posit that sham acupuncture has a strong placebo effect due to the interactive nature of sham treatment. Despite this, acupuncture consistently reduced headache frequency compared with sham acupuncture (SMD = –0.18; 95% CI, –0.28 to –0.08). At follow-up, 53% of patients treated with acupuncture experienced a decrease in headache frequency of at least one-half vs. 42% with sham acupuncture (RR = 1.25; 95% CI, 1.13 to 1.39; NNT = 10 [95% CI, 6 to 18]).

Five trials compared acupuncture with prophylactic medication, including metoprolol, valproic acid (Depakene), and flunarizine (not available in the United States). Compared with patients receiving medication, those treated with acupuncture were more likely to have their headache frequency decrease by at least one-half at the three-month follow-up (RR = 1.24; 95% CI, 1.08 to 1.44) but not at six months. More patients receiving medication dropped out of the study because of adverse effects than those receiving acupuncture treatment (7% vs. 1%). Adverse effects in patients receiving acupuncture included local pain and bleeding.

Another recent systematic review comparing acupuncture with sham acupuncture showed that acupuncture decreased headache recurrence and received better patient ratings, but it did not change actual headache frequency or severity.[3] Guidelines from

the Institute for Clinical Systems Improvement recommend the use of acupuncture for episodic migraine prophylaxis.[4]

The practice recommendations in this activity are available at http://www.cochrane.org/CD001218.

The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the U.S. government.

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Surgery vs. Medical Therapy for Heavy Menstrual Bleeding

ANNE MOUNSEY, MD, *University of North Carolina School of Medicine, Chapel Hill, North Carolina*

JOHNATHAN BURDICK, MD, *Saint Joseph Hospital, Denver, Colorado*

Clinical Question

Is surgery more effective than medical treatment for heavy menstrual bleeding?

Evidence-Based Answer

In women of reproductive age with chronic heavy menstrual bleeding, hysterectomy is the most effective treatment for controlling symptoms. Conservative surgery is more effective for controlling bleeding symptoms at one and two years than oral medications or the levonorgestrel-releasing intrauterine system, but by five years there is no difference. (Strength of Recommendation: B, based on inconsistent or limited-quality patient-oriented evidence.) Patient acceptability of treatment and rates of adverse effects were similar among the various treatment options, although more severe adverse effects were associated with hysterectomy.[1]

Practice Pointers

Heavy menstrual bleeding, defined as a loss of 80 mL or more of menstrual blood per cycle, affects nearly one out of five women in the United States each year.[2] Treatment options include complete hysterectomy, various endometrial ablation techniques, the levonorgestrel-releasing intrauterine system, and daily oral hormone medications. In this Cochrane review, the authors analyzed data from several studies to determine which treatment option is superior. The authors identified 15 randomized controlled trials including a total of 1,289 women 30 to 50 years of age who underwent surgery (hysterectomy or conservative surgery, including various methods of endometrial resection or ablation) or received medical therapy (oral contraceptives or levonorgestrel-releasing intrauterine system).

In the two studies evaluating surgery (i.e., hysterectomy and endometrial ablation) vs. oral medication, patients who chose surgery had greater satisfaction up to six months after. By two years, the higher level of satisfaction with endometrial ablation was still present, but by five years the satisfaction in both surgical groups was similar to that in patients treated with oral medication. By five years, though, more than 50% of the oral medication group had crossed over into the surgical groups, which may explain why the difference did not hold.

In the study that compared endometrial ablation with oral contraceptives, patient-reported control of bleeding after endometrial ablation was better than that with oral contraceptives in the first four months following initiation of treatment (relative risk [RR] = 2.66; 95% confidence interval [CI], 1.94 to 3.64), but the difference in patient-rated control of bleeding decreased at two years and was no longer present at five years.

One study found that hysterectomy controlled objectively measured bleeding better than the levonorgestrel-releasing intrauterine system at one year (RR = 1.11; 95% CI, 1.05 to 1.19). However, there was no difference in quality of life between the groups at five or 10 years. The percentage of women who initially received the levonorgestrel-releasing intrauterine system and eventually

had a hysterectomy was 42% by five years and 46% by 10 years.

Five studies (N = 281) that compared conservative surgeries with the levonorgestrel-releasing intrauterine system measured the proportion of women who self-reported that their bleeding was well controlled by their initial treatment at one year. Pooled effectiveness data, measured by subjective control of bleeding symptoms, favored surgical interventions at the one-year interval (RR = 1.19; 95% CI, 1.07 to 1.32).

The overall risk of adverse effects was lower in the surgical groups vs. the medical therapy groups. Patients treated with conservative surgery had fewer adverse effects than those treated with oral contraceptives at four months (RR = 0.26; 95% CI, 0.15 to 0.46), and those who underwent conservative surgery had fewer adverse effects than those treated with the levonorgestrel-releasing intrauterine system at one year (RR = 0.51; 95% CI, 0.36 to 0.74). However, the adverse effects in the medical therapy group were less severe (e.g., nausea, irregular bleeding) than those in patients who underwent surgery (e.g., postoperative wound infection, bowel or bladder perforation). One study reported operative complications in 3.7% of patients (four out of 109) and postoperative/late complications in 30% of patients (33 out of 109).

In patients with heavy menstrual bleeding, guidelines from the National Institute for Health and Care Excellence state that "pharmaceutical treatment should be considered where no structural or histological abnormality is present, or for fibroids less than 3 cm in diameter which are causing no distortion of the uterine cavity."[3] The American College of Obstetricians and Gynecologists concurs that many causes of heavy menstrual bleeding are amenable to medical management, and that surgical options can be considered if medical management is ineffective or contraindicated.[4] Family physicians should inform patients that surgical interventions (hysterectomy or conservative surgeries) are initially more effective and satisfactory than medical treatments, but that the levonorgestrel-releasing intrauterine system yields similar long-term results and patient satisfaction compared with conservative surgical interventions.

The practice recommendations in this activity are available at http://www.cochrane.org/CD003855.

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