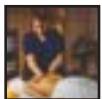
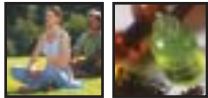




Poking Around

Acupuncture for OAK

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Acupuncture research is difficult. Previous research has been criticized by the medical profession for having flaws in the methodology of many of the clinical trials. Two randomized controlled trials that had reasonable designs showed a negative outcome for osteoarthritis of the knee (OAK). However, the trials only included 20 patients each and less than 10 acupuncture treatments were given.

What was the trial about?

Recently, Dr. Brian Berman completed a randomized acupuncture trial of 570 patients with OAK. The patients either received acupuncture, sham acupuncture or an education attention control, consisting of six two-hour group sessions on arthritis.

Both the sham and the true acupuncture groups had 26 weeks of treatment for a total of 25 treatments in six months.

All participants were asked at four weeks and 26 weeks whether they thought they were receiving true acupuncture, sham acupuncture or if they were unsure about which they

were getting. At four weeks, 67% in the true acupuncture group and 58% in the sham group believed they were receiving real acupuncture ($P = 0.06$) and 25% to 33% were unsure. Thus, only 9% saw through the sham [100-(58+33)].

By 26 weeks, more people in the true acupuncture group felt they were getting real treatment (75%) because they were getting better, but only 10% of the individuals receiving sham treatment thought it was not real [100-(58+32)].

What were the methods?

Five local acupuncture points were used: GB 34, SP 9, ST 36, ST 35 and Xiyan (XL 2); four distal points included UB 60, GB 39, SP 6 and K 3. Electrical stimulation consisted of square biphasic pulses (0.5-ms pulse width) applied at

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8 Hz for 20 minutes to the Xiyan points. The sham group had a mock transelectrical stimulation unit attached to the sham needles at the knee; it had a blinking light and emitted a sound.

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The real acupuncture group had two sham points used on their abdomens approximately 3 cm lateral to and slightly above the umbilicus bilaterally. This was done so that the two groups would have similar experiences. A screen was placed to prevent the patients from seeing the true or the sham treatment on the legs, but allowing them to observe the procedure on the abdomen.

The sham procedure used in this study was a modification of a combined insertion and noninsertion procedure from previous studies that had been validated by the University of Maryland group. The sham technique was a reversal of the real acupuncture technique—shams on the legs and true acupuncture points on the abdomen.

What were the conditions?

Assessments using WOMAC (Western Ontario and McMaster University Osteoarthritis Index) and patient global assessment were made at baseline four, eight, 14 and 26 weeks. The SF-36 score and the six-minute walk were tested at eight and 26 weeks. Careful attention was paid to possible adverse effects at each measurement interval. Participants were allowed to continue to take their usual medication during the trial. At the start of the trial, 11% were taking simple analgesics, 31% were taking nonselective nonsteroidal anti-inflammatory drugs (NSAIDs), 28% were taking cyclo oxygenase (COX)-2 selective inhibitors and 6% were receiving an opioid. A careful analysis was done to ensure that medication could not have been responsible for the differences in the groups.

What were the results?


By week 14, there was a 40% decrease from baseline in the WOMAC pain score (-3.6 units) for the true acupuncture group compared to -2.7 units for the sham group ($P = 0.02$). At 26 weeks

these differences remained ($P = 0.003$).

Improvement in function in the true acupuncture group had changed more than 12 units by week 14, indicating an almost 40% improvement from baseline. The differences between the true and sham groups were significant at weeks eight ($P = 0.01$), 14 ($P = 0.04$) and 26 ($P = 0.009$).

There were no adverse effects attributable to the acupuncture or sham acupuncture.

With many patients now unable to take NSAIDs, acupuncture is a useful treatment for OAK. This study emphasizes that proper clinical trials can be done to show the benefit of acupuncture. Unfortunately, it has been difficult to find funding for large multicentre trials that would contribute to the ever-increasing knowledge of this ancient healing technique.

Physicians interested in acupuncture training can contact the Acupuncture Foundation of Canada Institute (www.afcinstitute.com), who provide courses for physicians to learn skills they could apply in their practices. 

Resources

1. Berman BM, Lao L, Langenberg P, et al: Effectiveness of acupuncture as adjunctive therapy in osteoarthritis of the knee: a randomized, controlled trial. *Ann Intern Med* 2004; 141(12):901-10.
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3. Takeda W, Wessel J: Acupuncture for the treatment of pain of osteoarthritic knees. *Arthritis Care Res* 1994; 7(3):118-22.
4. Lao L, Bergman S, Langenberg P, et al: Efficacy of Chinese acupuncture on postoperative oral surgery pain. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1995; 79(4):423-8.
5. Lao L, Bergman S, Hamilton GR, et al: Evaluation of acupuncture for pain control after oral surgery: A placebo-controlled trial. *Arch Otolaryngol Head Neck Surg* 1999; 125(5):567-72.