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Acupuncture in musculoskeletal disorders

Is there a point?

Several surveys have identified that Australian general practitioners have largely accepted acupuncture as part of their armamentarium. About a quarter of GPs have been trained in acupuncture and the majority of those surveyed agreed that acupuncture was effective and that they had referred patients for the therapy.^{1,2}

Acupuncture is an integral part of traditional Chinese medicine and has thousands of years of history of use. While acupuncture presents some challenges to test in randomised controlled trials, such as inadequate placebos and difficulty achieving blinding of both researchers and participants, many trials of increasingly high standard have been published; for example, the Cochrane Collaboration has over 120 reviews and protocols relating to acupuncture.

This article presents some recent evidence about the use of acupuncture to treat musculoskeletal conditions.

Acupuncture for chronic neck pain

Dr Roberta Chow, a Sydney based GP, undertook a well designed randomised controlled trial of laser acupuncture for neck pain.³ Laser acupuncture is considered by its proponents to be equivalent to needle acupuncture, and Dr Chow has recently published a paper about the physiological effects of laser on pain nerve fibres.⁴ Laser has obvious advantages over needles in infection control and for patients with fear of needles.

Her trial enrolled 90 participants, who had an average of 15 years of neck pain. However, there were many exclusion criteria for the trial, such as neurological symptoms and previous neck surgery. Participants were treated twice weekly for seven consecutive weeks. In the control group, the laser was turned off. Both doctor and participant wore goggles to blind them from knowing whether the laser was on or off, but clearly this method could be open to 'cheating'.

Dr Chow's results were impressive in this chronic pain population: 1 month after treatment, 40% of the treated group self reported 'much' to 'greatly' improved

pain, and a further 42% reported 'somewhat' improved. In the placebo group, the comparable figures were 7% 'much' and 22% 'somewhat' improved pain. Significant improvements were also detected in disability.

A wide range of adverse effects were reported, but all occurred equally in both groups, apart from nausea (worse in the placebo group) and stiffness (worse in the laser group). Only six participants withdrew from the study, with four being from the control group.

The many exclusion criteria in choosing participants for the trial may limit how much these results can be generalised to the general practice population.

Acupuncture for shoulder pain

A Cochrane review, produced by an Australian team, examined the evidence for acupuncture in treatment of shoulder pain.⁵ The authors undertook an extensive literature search, seeking research that compared acupuncture to either placebo or to a range of other treatments, including ultrasound or exercises. Nine trials involving over 500 people were accepted into the review. However, the methodological quality was variable and rather low. Trials differed in the diagnoses included, the interventions tested and the placebos used.

The authors concluded that acupuncture provided no short term improvement in shoulder pain. However, they also pointed out that as only small numbers of people had been included in the trials, there was a possibility that no difference between acupuncture and other treatments or placebo was detected where one might actually exist (type II error). Acupuncture did improve shoulder function, although by 4 months this difference between groups was no longer clinically significant.

Overall, the authors felt that there was not enough evidence to tell with any confidence whether acupuncture was effective in shoulder pain and called for more quality trials to be undertaken.

Acupuncture for osteoarthritis of the knee

In a randomised controlled trial in Germany, patients with chronic osteoarthritis were randomly allocated to

either receive acupuncture (n=150), minimal acupuncture (defined as superficial needling at nonacupuncture points) (n=76) or a waiting list that served as a control group.⁶ Once again, there were strict exclusion criteria, including people who had had an intra-articular injection in the past 4 months or physiotherapy in the past 4 weeks. Participants received 12 sessions of therapy over 8 weeks. All enrolled patients were included in the final analysis (intention-to-treat analysis).

Immediately after treatment, the acupuncture group did significantly better than the other two groups. However, the minimal acupuncture group also did statistically better than the control group. By the 6 and 12 month follow up visits, there were no differences detectable between the three groups.

The last word in acupuncture and chronic knee pain comes from a recent review, which included this German study, and concluded that acupuncture was superior to both sham acupuncture and 'usual care' in both the short and long term.⁷

Conflict of interest: none declared.

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