Massage is better than acupuncture (and in the short term better than self-care) in reducing pain and disability in patients with chronic low back pain

Synopsis


Question: Acupuncture, massage or self-care: which is most effective in improving pain and disability in patients with chronic low back pain? Design: Randomised controlled trial. Setting: United States health maintenance organisation. Patients: Patients with low back pain (LBP) who had visited a primary care physician were invited to participate. Exclusions included sciatica, acupuncture or massage treatment of LBP in last year and prior LBP treatment by specialist or complementary medicine provider. Two hundred and sixty-two subjects were randomized, 252 received treatment and 249 completed the 12 month follow-up. Interventions: Licensed and experienced acupuncturists and masseurs treated patients for up to 10 visits over 10 weeks. The massage techniques allowed were: Swedish, deep-tissue, neuromuscular, trigger and pressure point techniques. The acupuncture techniques allowed were: needling techniques, electrical and manual stimulation of the needles, indirect moxibustion, infrared heat, cupping and exercise recommendations. The self-care group received an information book and two videos containing information on back pain and its treatment, self-management (techniques for controlling and preventing pain and improving quality of life, suggestions for coping with emotional and interpersonal problems that may accompany chronic illness) and exercise. Main outcome measures: The primary outcomes were bothersomeness of symptoms measured on a 0-10 scale and disability measured using a modified Roland Disability scale (range 0-23) measured at four, 10 and 52 weeks. Secondary measures included satisfaction with care, health-related quality of life measured using the SF-12, recurrence of back pain and health care use. Main results: After adjustment for baseline scores and prognostic covariates, the massage group had less bothersome symptoms at 10 weeks than the self-care group (3.4 vs 4.7 $p = 0.01$) and less disability than the self-care (5.9 vs 8.9 $p < 0.001$) and acupuncture (5.9 vs 8.3 $p = 0.01$) groups. At one year, massage was not better than self-care however the massage group had less bothersome symptoms than the acupuncture group (3.1 vs 4.7 $p = 0.002$) and less disability (6.3 vs 8.2 $p = 0.05$). At one year, there were no between-group differences in health-related quality of life, satisfaction with care, the proportion of subjects with a recurrence or continuation of back pain in past six months. Conclusion: Massage provides better results than acupuncture in both the short and long term. While massage is more effective than self-care in the short term, this benefit is not evident at one year follow-up.

Commentary

This is an extremely timely study in view of the popularity of complementary and alternative therapies among CLBP sufferers and therapists alike. There is a lack of strong evidence for the efficacy of these interventions and current clinical trials are largely of poor methodological quality.

In this study, appropriately trained and experienced practitioners of massage and acupuncture delivered the specific treatment protocols, thus providing evidence of the true benefits of these interventions for patients with chronic LBP. Although patients in the therapeutic massage group had better symptomatic relief in the short term (supporting its use), by one year follow-up, all groups reported ongoing pain and functional disability and there was no difference between groups for the majority of outcomes. Consequently, this paper does not provide any new solutions to the problem of LBP chronicity and recurrence (almost 80%). It is now generally believed that LBP can only be successfully tackled by a biopsychosocial approach, which encompasses the influence of cognitive, affective and behavioural influences on pain and disability. Rehabilitation programs that focus on cognitive behavioural therapy strategies (with or without an exercise component) have been found to produce significant long-term positive effects in LBP patients compared with routine management (Klaber-Moffett et al 1999, Moore et al 2000). However, in this study, only the self-care group received such an approach in the form of education materials related to pain control and coping techniques. It would have been interesting to include the self-care protocol in the massage and acupuncture groups as well.

In view of the findings of this study, and given the mounting evidence for cognitive behavioural therapy, the challenge now facing therapists is how to integrate biopsychosocial principles into clinical practice in order to have a meaningful impact on LBP and its associated sequelae.

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References
