

The Use of Acupuncture for Back Pain

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Abstract

Back pain could be arising from a variety of pathological changes involving a multiple number of tissues including the bony spine itself and its surrounding muscles, nerves and vascular tissues involved. In a complex situation, back pain is still experienced in spite of serious attempts to remove the pathology or counteract the abnormal activities related. Nowadays, when conventional attempts fail to give good relief, acupuncture is commonly applied.

Review of past experiences gives good support to the use of acupuncture for back pain. The theories behind the effectiveness of acupuncture remain hypothetical but the practice itself is safe and often effective. One would expect better outcome from this old traditional technique if more communication can be established between the acupuncturists the surgeons and therapists, and if puncturing practices could be standardized.

Keywords: Acupuncture; Back pain; Alternative therapy

Introduction

In 1997, the U.S. National Institutes of Health (NIH) held a consensus conference to work out a general policy regarding the application of acupuncture for various areas of need. The conference organizers concluded that, although many clinical studies have failed to give solid evidence of efficacy when the fundamental principles of evidence-based medicine were used as assessment tools, acupuncture's effects on the control of nausea and vomiting, pain of dental origin, and suffering from pain in other circumstances, are widely considered to be positive. Moreover, the NIH was aware of the many physiological experiments being done on animals and humans—trials that were expected to be able to reveal the mechanisms of action sooner or later [1].

Since this important move taken by the NIH, the already rising popularity of acupuncture practice received further encouragement so that major hospitals in the United States started to establish small acupuncture teams to take care of patients with special needs. Some specialties, such as rehabilitation, rheumatology, psychiatry, and oncology, started to run integrative clinics in which acupuncture practice was always included. There is little doubt that, in the United States, in Europe, and within the wide territories of Chinese communities, acupuncture is now the best known and most frequently used technique in alternative medicine [2].

In fact, the World Health Organization (WHO), in 1979, had already issued a users' guideline for the practice of acupuncture [3].

In Chinese communities, acupuncture naturally has been enjoying even greater popularity. In China, acupuncture clinics have the longest waiting lists in the public services that offer Chinese Medicine. In Hong Kong, patients with chronic pain are constant customers. Patients with neurological deficits seldom recover completely, thus, these individuals most frequently seek acupuncturists' assistance [4]. Our service providers are aware of the need, so acupuncture has become a well-accepted option among most hospital practitioners when standard conventional biomedical treatment has failed to yield satisfactory results.

Acupuncture is now a well-accepted treatment option for chronic pain and some other conditions that modern medical practice fails to offer reliable solutions yet [5]. Acupuncture is a clear area of patient preference in spite of widespread skepticism, particularly in biomedical circles.

Acupuncture and Back Pain

Chronic low back pain is one of the most frequently experienced neuromuscular ailments in all communities. In Europe and America, 80% of adults experience significant back pain during their life time [6]. While the majority of back pain episodes appear to be resolved within 6 weeks, it is estimated that 10% to 20% of affected adults develop symptoms of chronic lower back pain defined as persistent pain lasting longer than 3 months and occurring in at least 50% of days [7]. The majority of chronic back pain patients do not have a diagnostic evidence of pathology that deserves specific treatment, such as special medication or surgery [8].

Rehabilitation programs involve multiple disciplines, such as therapeutic exercises, physiotherapy, occupational therapy, and relaxation training, which are often combined with drug management. In spite of energetic rehabilitation training, only about 30% to 40% of Industrial patients return to work [9]. Electrical stimulation for control of pain is often employed, normal and some reports endorse the value of such practices such as transcutaneous electrical nerve stimulation (TENS) [10].

Coan [11] reported that patients receiving a minimal of eight acupuncture treatments experienced less pain at a 40-week follow-up than those who dropped out after only one to two treatments. Lehmann, et al. [12] conducted a trial to assess the efficacy of TENS and electroacupuncture (EAP) in the rehabilitation of chronic back pain patients. Fifty-four patients treated in a 3-week inpatient rehabilitation program were randomly assigned to and accepted treatment with EAP TENS (low intensity transcutaneous nerve stimulation) and TENS dead-battery (placebo). Outcome measures included estimates of pain (on a Visual Analogue Scale) and disability by both physician and patient, physical measures of trunk strength and range of motion of the spine,

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as well as the patient's perceptions of the relative contribution of the education, exercise training, and the electrical stimulation. Analyses of variance were utilized to determine effects of treatment (EAP, TENS, and placebo) across time (admission, discharge, and return) for the outcome measures. There were no significant differences between treatment groups with respect to their overall rehabilitation. All three treatment groups ranked the contribution of the education as being greater than the electrical stimulation. However, the EAP group consistently demonstrated greater improvement on the outcome measures than the other treatment groups. For Visual Analogue Scale measure of average pain, there was a statistical trend at the return visit, suggesting that the acupuncture group was experiencing less pain.

A recent Cochrane review of 35 trials, evaluating the effectiveness of acupuncture for treatment of non-specific low-back pain and dry-needling for myofascial pain syndrome in the low-back region compared to no treatment, sham therapies, and the additional of acupuncture to therapies, provided good evidence on the effectiveness of acupuncture for chronic low-back pain [13]. The results suggested that acupuncture was more effective for pain relief and functional improvement compared to no treatment and sham therapies during follow-up. However, acupuncture was not more effective than other conventional and "alternative" treatments when comparing its effectiveness with other conventional treatments. The evidence suggested that acupuncture is more useful for pain relief and functional improvement when used in conjunction with other conventional therapies than when comparing the effectiveness of conventional therapies alone. The reviewers concluded that acupuncture may be useful as either a unique therapy for chronic low-back pain or an adjunct therapy to other conventional treatments.

The conclusion at this stage, could be as follows: although the effect of acupuncture on pain control is nothing like the use of analgesics that bring immediate, although short-term relief, it has great practical value as an alternative for chronic persistent pain [14-17]. The mechanism of action of acupuncture is yet unclear. Recent studies using functional MRI indicated that the functional activities in specific regions of the brain could be mapped out during procedures of acupuncture. With further maturation of the basic research trying to explain this ancient art of healing, acupuncture is expected to become even more popular in time. Acupuncture has been the most popular form of alternative treatment in modern hospitals and clinics, especially among pain teams. For the clinician, it will be to his disadvantage if he does not realize the potential value of acupuncture for his patients suffering from resistant, chronic pain.

In 1998, the U.S. National Institutes of Health held a broad review gathering on the effects of pain control using acupuncture. The result of the meeting was a proper official endorsement of the evidences supporting the use of acupuncture as an option for pain control [18].

Discussion

Normally orthopaedic surgeons organize their own operations and rehabilitation programs which consist of mainly physiotherapy and occupational therapies.

While the acupuncturists serve their own clients with relatively milder symptoms presentations, they would refer them to the surgeons when complex pathology becomes apparent. There is a lack of genuine dialogue between the orthopaedic surgeon and the acupuncturists. The former is busy with more and more advanced techniques in surgery and therapeutic measures while the latter feel isolated and are so deficient of the background to be able acquire the modern informations and technologies.

A frank dialogue between the orthopedic surgeon and the acupuncturist would bring a bright future to patients suffering from bone and joint diseases [19]. The immediate result of the dialogue would be a reasonable division of labour. Emergencies and surgeries would follow strict indications and guidelines of modern practice to be executed by orthopaedic practitioners. Chronic problems and rehabilitation would need the input of traditional experts.

Conclusion

At this stage, yet although thorough explanations to the treatment effects of acupuncture are not available, it is widely practiced for pain control and neuro muscular recovery. Some theories are useful for the explanation of some effects but they are not comprehensive. The "gait theory" states that proprioceptive stimulation initiates an up-going neurological message to block pain perception [18]. However, acupuncture does not always stimulate proprioceptive receptors. The neuro-humeral theory describes the production of endorphin in some of the cerebral areas in response to acupunctures [19]. Only isolated experimental evidences are obvious. The anatomical theory finds only 60% of acupoints related to peripheral nerve pathways [20].

While finding out a comprehensive set of explanations to the treatment effects of acupuncture appears remote, fortunately the apparently primitive practice is known to be safe and never expensive [21]. To further justify a wider practice and to achieve more objective data to support the practice, I would propose firstly, that all rehabilitation experts be trained or at least be acquainted with acupuncture and secondly, let acupoints chosen for special categories of treatment be standardized so that systematic evaluations could be better convened [21].

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