The Use of Acupuncture for Back Pain

Leung PC1,2,*

1Department of Orthopaedics, The Chinese University of Hong Kong, P.R. China
2Institute of Chinese Medicine, The Chinese University of Hong Kong, P.R. China

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 that 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% 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 electro-acupuncture (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.
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 group 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 that the other treatment groups. For Visual Analog 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-needleling for myofascial 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 acupuncture [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].

References


