

Hit the needle where it hurts

Acupuncture as an integrated part of medicine

David Kopsky

As a medical student you learn a lot about diseases and their cures. The causes of many diseases though are still unknown, which motivates exploring different medical areas. For me, this resulted in following a three-year course in acupuncture. After completing medical school and the acupuncture course, I went to the Philippines to work in a public hospital. Here my real acupuncture journey started. I could effectively treat itchiness caused by Dengue fever with acupuncture or relieve muscle pain in my companion travellers by ear puncture needles. Puncturing the ear was effective and simple: hit the needle where it hurts. But what is the story of acupuncture?

History

Thousands of years ago acupuncture was developed to relieve health complaints, especially in Asia. The word acupuncture is derived from two Latin words: *acus* (needle) and *punctura* (to prick). This technique was named by the seventeenth century Dutch surgeon William ten Rhijne. He encountered this pin pricking in Japan, at the time the Dutch were trading there. In the second century BC, in the ancient Chinese writing Records of the Grand Historian, the use of needles made out of stone, bamboo and bone fragments, was reported for the first time. The ancient Chinese described their diseases and treatments in everyday metaphors, such as water, wood, earth, fire,

and metal. For example, if someone had a red face, the ancient Chinese called this much fire in the face. The treatment was reducing the fire with water, acupuncture points or herbs. Another term, often used in the traditional Chinese medicine is Chi, which can be translated as life force or life energy. This metaphor is seen as one of the driving forces of the human body. In traditional Chinese medicine, Yin and Yang are two concepts opposing each other. Yin represents aspects such as cold, dark, receptive, introvert and female, where Yang represents hot, light, active, extrovert and male. The Chinese culture as well as the concept of Chinese traditional medicine is embedded in these metaphors.

Acupuncture is almost two times more effective after six months compared to standard treatment

Working mechanisms

Chinese acupuncturists puncture the so-called 'acupuncture points,' which are connected with meridians in the human body. However there is an ongoing debate still questioning their real existence. During the last 50 years, a lot of scientific research has been performed on the working mechanism and effects of acupuncture. Back in the seventies it became clear that acupuncture released endorphins in the human body through stimulating nerves. Endorphins are our own natural morphine. Acupuncture not only modulates endorphins, but also other neurotransmitters such as serotonin, dopamine and enkephalin. Research has shown that acupuncture can even switch genes related to pain processing on and off. This evidence-based neurohumoral explanation makes the effects of acupuncture more comprehensible to Western physicians.

Acupuncture Facts

Acupuncture is one of the main forms of treatment in traditional Chinese medicine.



Treatment is pain free: the patient should feel a slight sensation as the needle contacts the Qi. This feeling is known as 'deqi', or getting Qi.



The large US research funding organization, the National Institutes of Health (NIH), has funded a variety of research projects on acupuncture.



Clinical effects

Many large clinical trials have been done on acupuncture. The problem with the design of these trials however is blinding, since the acupuncturist will always know whether he punctures a real point or a sham point. Still, good randomized trials have been done with positive results. Meta-analysis and systematic reviews show that acupuncture is effective in a range of disorders such as nausea and vomiting after chemotherapy, tennis elbow, tension headaches, neck pain and knee pain.

The Cochrane group concluded that for post-operative nausea and vomiting, and for migraines, acupuncture is at least as effective as regular medication, only with fewer side effects. A large German study of over 1 200 patients with chronic low back pain showed that acupuncture is almost two times more effective after six months compared to standard treatment.

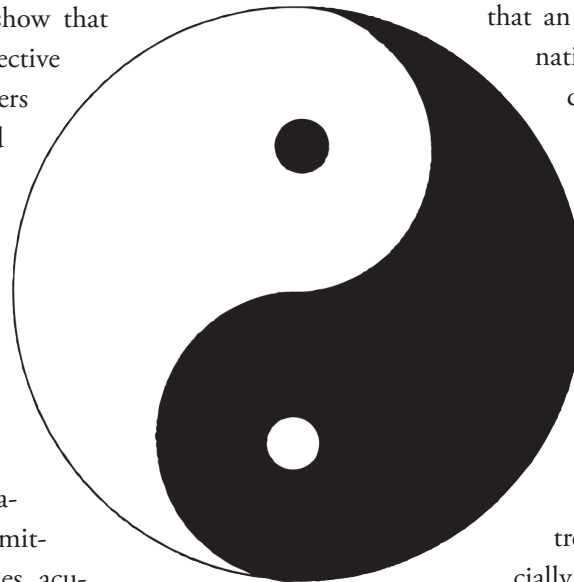
As a consequence of these studies, German

health insurance companies are reimbursing acupuncture for a number of pain indications. In the United States, acupuncture has been integrated in more than 40 leading academic hospitals, including Harvard and Yale. It seems that acupuncture has found its way out of the alternative scene now

that an evidence-based explanation on its effects can be demonstrated.

In practice

Experiencing the positive effects of acupuncture in patients, I decided to set up a clinic that offers both pharmacological and acupuncture treatments targeted especially at patients with complex pains, such as neuropathic pain. One modality is usually not enough to relieve pain, therefore a multidisciplinary treatment is often needed. Since acupuncture has minimal adverse effects, this technique is usually the first treatment used in my clinic. In one acupuncture session, it will often be clear whether acupuncture is effec



tive for the patient or not. Neuropathic pain often returns after days or hours, so the acupuncture intervention needs to be repeated. For patients who respond to acupuncture, lower doses of pain medication, such as pregabalin, gabapentin or amitriptyline can be given.

In the Netherlands, the majority of physicians are open to the use of acupuncture, especially when standard treatments do not have the desired effect. Clear communication between physicians however is essential for understanding each other's expertise.

In many parts of the world acupuncture is already part of standard care. Other countries are in transition to combine useful techniques from alternative and complementary medicine, such as acupuncture, and are working towards an integrative medicine. The bottom line is that there is just one medicine that is the best medicine: the one that helps the patient most.

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About the author

David Kopsky is physician and acupuncturist. He received his degree in medicine in 2002 at the University Amsterdam, the Netherlands. He is co-founder of the Institute for Neuropathic Pain.

Further reading

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