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On acupuncture: Conversation between an acupuncturist and a curious friend
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[55-58]

Q: Since we are not always one with the *dao* and we get sick, can we shift to a more prosaic area and see what acupuncture can cure?

A: WHO began to deal with of acupuncture in 1991, and in 1998 it published an analysis of the controlled clinical studies, "...with the intent to support and promote the appropriate use of acupuncture in the whole world".
At present, the range of treatment is very wide: digestive, gynecological-obstetric, respiratory, dermatological, cardio-vascular, neurological system disorders, muscle and joint pain, sleep and anxiety-depression disorders, erectile dysfunctions, headaches. Certainly many serious pathologies cannot be cured by acupuncture, nonetheless it can be of great help to support what resources we have and to lessen the drugs side effects when they need to be taken.

Q: Do you think that there are illnesses for which acupuncture is a more convenient treatment compared to conventional medicine?

A: Acupuncture effectiveness is more relevant in "functional" disorders, but it has good results also in very "physical" problems, for example not excessively large fibromas and cysts respond well, bruises and sprains heal faster, the different types of lesions recover better.
Generally speaking, I think that acupuncture is the best choice when the system has not exceedingly disarrayed, since Chinese medicine takes care of the whole organism and acts on the problem root better that on the symptom. Conventional, biomedical medicine finds its reason where the pathological collapse is very advanced that is when there is a real indication for surgery or for a pharmacological choice.

Q: Has its effectiveness been proved?

A: The most immediate answer is that Chinese are very pragmatic, if acupuncture had not worked they would have not gone on using it. But maybe your question concerns results of evaluation by the biomedical system.
In the 1998 WHO review report, efficacy was confirmed in case of rheumatoid arthritis, cervical pain, biliary and kidney colic, depression, primary dysmenorrhea, acute dysentery, sprains, toothache, knee pain, facial pain, post-operative pain, chemo and radiotherapy side effects, epicondylitis, acute and chronic gastric pain, childbirth induction, essential hypertension, primary hypotension, leucopenia, lumbar pain, fetus malposition, nausea in pregnancy, shoulder arthritis, allergic rhinitis, sciatic pain, ictus sequelae. There was also a list of pathologies which demonstrated a therapeutic effect, but further studies were needed for confirmation. Shortly after, the NIH Consensus Panel of the American Medical Association recognized its validity in conditions such as asthma, headache and migraine, substances dependency, fibromyalgia. Since then biomedical studies on acupuncture effectiveness have greatly increased and now on the Cochrane website, an independent organization that collects studies and researches, there are 725 reviews.

Q: Could you give some examples of these studies?

A: Actually, as happens in any medical research field, a meta-analysis shows that many studies were not accurately run and their results cannot be considered significant. But mentioning some validated researches about therapeutic effects and about metabolic or cellular level outcomes may be of interest.
For instance a German meta-study considered over 40 controlled clinical studies and confirmed acupuncture efficacy on post-operative pain, pregnancy and chemo nausea and vomiting. Furthermore it reported experimental research on the effect of specific acu-point stimulation on functions related to nausea and vomiting, such as gastric motility, vagal modulation and vestibular cerebellar activity. Still concerning therapeutic aspects, I can refer to a multi-centric English study involving 570 patients suffering of knee arthritis: outcomes show that acupuncture produces a pain and movement improvement better then both control-cases treated with sham acupuncture and rehabilitation programs.
Among researches on cellular response I would mention: 1. A Seul University study stating evidence, although in an animal model, that acupuncture stimulates the defensive system (it promotes cytotoxic lymphocytes - natural killer cells - activity, through genic expression increase of activity stimulating proteins and expression decrease of inhibiting proteins); 2. Taiwan University research illustrating that acupuncture can influence metabolic pathologies (it increases glucose tolerance in diabetic rats), and 3. A Japanese study proving that acupuncture has a modulating effect on the immune system (it tends to normalize granulocytes and lymphocytes excess or deficit).

Q: Surgical acupuncture mechanisms have been studied as well?

A: In the 70’s western doctors were very impressed by the possibility to use acupuncture for some kind of surgery. Compared to therapeutic outcomes, the anesthesia field was also easier to evaluate and therefore the first biomedical research focused on acupuncture's analgesic action.
The first studies had essentially identified endogenous opioid release mechanisms, while at present the analgesic function is considered more as related to the bulb modulating effect of pain-signal processing linked brain structures (brain structures concerning pain-signal processing). The Beijing University research is an example of this: it shows how some neuro-peptides and their receptors found in different central nervous system areas play an essential role in the acupuncture analgesic effect.

Q: Are there studies on acupuncture's actual therapeutic action as well?

A: Yes, for instance I find the research which has been conducted by Boston Harvard Medical School since 2005 very interesting. By using fMRI, functional Magnetic Resonance Imaging, these studies evaluate the effect of an acu-point on cortical and subcortical limbic structures. Needle manipulation significantly reduces the fMRI signal. The initial mechanism through which acupuncture regulates multiple functional systems and achieves different therapeutic effect could be related to the modulation of these neuronal circuits. These play a central role in the pain emotional and cognitive dimension, but mainly in the regulation and integration of emotions, memory processes, immune, motor-sensory and autonomous nervous system functions.