Central Neural Mechanisms of Acupuncture: Lessons from Chronic Pain

Neurochemical imaging techniques have been used to study the mechanistic action of acupuncture and other integrative medical practices within the past decade. These techniques largely include positron emission tomography (PET) and proton magnetic resonance spectroscopy (1H-MRS), both of which provide insights into brain neurochemistry of chronic pain and its subsequent response to therapy. Acupuncture modulates both excitatory (glutamate) and inhibitory (opioid) neurotransmission and these effects may be divergent from the "placebo effect". The relationship between these findings and results from randomized controlled trials in chronic pain remains to be explored, however it appears that differing brain mechanisms may be present for both verum and sham acupuncture which yield similar reductions in clinical pain. Interestingly baseline opioid receptor binding, prior to treatment, may differentially predict clinical response to verum and sham acupuncture. Acupuncture effects are complex and multifactorial, having impact on multiple central nervous system processes which are dysregulated in chronic pain. These actions can be assessed with modern neuroimaging methods.


Review of the studies and methods of medical treatment using Scolopendrid Pharmacopuncture published between 2001 and the present day

Objective: We review the results of the studies published up until the present day and suggest methods for the clinical treatment of Scolopendrid Pharmacopuncture.

Materials and methods: We analysed the research papers for the bibliographic studies, experimental studies and clinical studies from 2001 developed Scolopendrid Pharmacopuncture.

Results: 1. The clinical safety of Scolopendrid Pharmacopuncture was verified by the animal and human tests. 2. The pharmacological effects of Scolopendra subspinipes mutilans L. Koch are that it has anti-convulsive, analgesic, anti-inflammatory, anti-bacterial, anti-tumor action. As well as lowering blood pressure. 3. Scolopendrid Pharmacopuncture has been shown to be effective on the entrapment neuropathy and inflammation. 4. Scolopendrid Pharmacopuncture was thought to be effective at acute phase treatment and where there were excessive inflammatory symptoms.

Conclusions: Scolopendrid Pharmacopuncture was verified for the clinical safety and effects until now. However, there is still a need to carry out the chronic toxicity experiments as well as various other clinical studies.

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Evaluation and ranking of toxic and scheduled Chinese herbal medicines

Significant differences were found in regulation of potentially toxic Chinese herbal medicines in Australia and China, and scheduling of medicines and toxic herbs are lacking in China. From seventy-four monographs of potentially toxic herbs included in regulation in Australia and China, five herbs were selected for detail evaluation. Preclinical and clinical data was summarised into six levels of evidence. Based on the ranking criteria, which included risk-benefit analysis, severity of toxic effects, clinical and preclinical data, four regulatory classes were proposed.


Prior to Conception: the role of an acupuncture protocol to enhance women’s reproductive functioning

Background: Fertility has become a major presenting condition more than 1 in 10 couples having difficulty conceiving. This study sought to explore the potential contribution of an acupuncture protocol to enhancing female fertility. This paper presents the results of a clinical trial to explore the use of acupuncture in the lead up to conception and the outcomes of interviews with the women who received the acupuncture intervention.

Methods: The acupuncture protocol used was developed by consensus. The clinical trial was a pragmatic design: 56 women were randomised to two groups — one receiving a lifestyle-only intervention and the other acupuncture-plus-lifestyle — with the manualised acupuncture intervention responsive to participants’ presentation at the time of treatment. Half of the acupuncture recipients were interviewed in depth after the intervention. A mixed methods research methodology offered a richer data set with which to examine the outcomes for the trial population and the individual experiences of an acupuncture intervention.

Results: The results for the acupuncture recipients include significant changes in fertility awareness, quality of life scores and time to conception measures. There were also positive menstrual changes indicated. Participant reports reinforced the importance of wellbeing for women with fertility problems and the contribution acupuncture treatments make to a sense of personal transformation.

Conclusion: This study points to acupuncture as a safe and beneficial preparation for conception. It also provides additional guidance to practice in that it tested a particular acupuncture protocol that treated according to time in the menstrual cycle, TCM and biomedical diagnosis, and presenting symptoms. The study results also confirm the importance of understanding acupuncture as an intervention that assists women to transform themselves.