

Research Snapshots

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GERMAN RANDOMIZED ACUPUNCTURE TRIAL FOR CHRONIC SHOULDER PAIN (GRASP) – A PRAGMATIC, CONTROLLED, PATIENT-BLINDED, MULTI-CENTRE TRIAL IN AN OUTPATIENT CARE ENVIRONMENT

OBJECTIVES: To evaluate the long-term effectiveness of acupuncture for chronic shoulder pain (CSP) using a randomised patient-blinded, multi-centre controlled trial.

METHODS: The trials comprised of a six-week treatment period and three-month follow-up period. A total of 424 outpatients with CSP over six weeks and an average pain score of over 50 mm on the visual analogue scale (VAS) were randomly assigned to receive Chinese acupuncture (verum) ($n = 135$), sham acupuncture (sham) ($n = 154$) or conventional conservative orthopaedic treatment (COT) ($n = 135$). The acupuncture points selected for the verum group include *Ashi*, LU1, LU2, LI4, LI11, LI14, LI15, SJ5, SJ13, SJ14, SI3, SI9, ST38, GB34 and BL58. An average of eight points were used, each inserted to a depth of 1–2 cm and stimulated manually. Sham acupuncture was standardised to eight needles at defined non-acupuncture points, with an insertion depth of less than 5 mm. Both verum and sham

treatments lasted for 20 minutes in each session. In the COT group, patients received 50 mg diclofenac daily and 15 treatment sessions (one to three sessions per week throughout the six-week treatment period) selected from physiotherapy, physical exercise, heat or cold therapy, ultra-sonic treatment and TENS. Injections or cortisone applications of any kind were not allowed. The assessments were carried out at post-treatment and at the end of the three months follow-up. The assessments include pain on VAS, range of motion (ROM), shoulder mobility and full elevation of arm. Both intention-to-treat (ITT) analysis and per-protocol (PP) analysis were applied.

RESULTS: The ITT analysis reported that 65% (95% CI 56–74%) of participants in the verum group ($n = 100$), 24% (95% CI 9–39%) in the sham group ($n = 32$), and 37% (95% CI 24–50%) in the COT group ($n = 50$) experienced a relief of at least 50% in pain intensity at the end of the three-month follow-up. At post-treatment, such pain relief was seen in 68% (95% CI 58–77%) of participants in the verum group ($n = 92$), 40% (95% CI 27–53%) in the sham group ($n = 53$), and 28% (95% CI 14–42%) in the COT group ($n = 38$). The ITT results showed verum acupuncture to be significantly more effective than sham and COT ($p < 0.01$) for both the

primary and secondary endpoints. The PP analysis of the primary ($n = 308$) and secondary endpoints ($n = 360$), showed similar results for verum versus sham and verum versus COT ($p < 0.01$). For shoulder mobility (abduction and arm-above-head test), the verum group also reported better effectiveness compared with the control groups at two endpoints.

CONCLUSION: The trial indicates that Chinese acupuncture is an effective alternative to conventional orthopaedic treatment for CSP. Verum acupuncture was shown to be more effective than sham acupuncture at non-verum points.

COMMENTS: Compared with other RCTs of acupuncture for pain conditions, this trial has a large sample size (424 participants), allowing increased precision in population estimates. This trial used both ITT and PP analysis and compared them, reducing possible bias induced by either analysis and produced more persuasive results.

Molsberger A F, Schneider T, Gotthardt H, and Drabik A. German randomized acupuncture trial for chronic shoulder pain (GRASP) – A pragmatic, controlled, patient-blinded, multi-centre trial in an outpatient care environment. Pain. 2010 Oct;151(1):146–54.

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RETROSPECTIVE STUDY ON TRADITIONAL CHINESE MEDICINE TREATMENT FOR DIABETIC NEPHROPATHY

OBJECTIVES: To examine the diagnostic information, pathogenesis and Chinese herbal treatment of patients with diabetic nephropathy (DN) treated by Prof Zhongying Zhou.

METHODS: This study took place in an outpatient clinic in the Nanjing University of Traditional Chinese Medicine, China. Patients with DN seen by Prof Zhou from February 1990 to June 2010 were retrospectively identified. Only records with complete data and the Western medicine diagnosis of DN were included in this study. Data extraction covers demographic data, dates of visit, medical history, signs and symptoms, related physical examinations, diagnosis, pathogenesis, provided treatments and treatment principles. Prior to analysis with SPSS 13.0, data were pre-treated by: a) rectifying incorrent words; b) uniforming terminology for four diagnostic data, syndrome differentiations and herbal prescriptions.

RESULTS: A total of 92 patients with 162 visits were included in this study. The most common tongue and pulse readings were yellow thin greasy tongue coating (53.1%), dark tongue (40.7%) and thready slippery pulse (33.3%). Patients mainly reported numbness in limbs (40.7%), dry mouth (38.3%) and frequent urination (34.6%). In terms of syndrome differentiation, 'deficiency of

liver and kidney' (57.4%) was attributed to about half of the DN visits, followed by 'deficiency of both Qi and Yin' (40.7%) and 'chronic disease transforming into collateral stasis' (24.1%). These DN visits were largely related to 'deficiency' (137.7%), 'blood stasis' (80.3%) and 'heat' (78.4%) syndromes. For most visits, DN aetiology was from kidney (73.5%), liver (67.9%) and stomach (16.1%). Herbal prescriptions contained on average 17.98 herbs. Of the 236 herbs used to treat DN, *Shengdihuang* (*Radix Rehmanniae*) (67.9%), *Guijianyu* (*Ramulus Euonymi*) (66.7%) and *Digupi* (*Cortex Lycii Radicis*) (63.6%) were generally prescribed. Correlating these herbs to their syndrome found that *Guijianyu* and *Digupi* were prescribed for 'chronic illness transforming into collateral stasis', whereas *Shengdihuang* was used for 'collateral heat causing blood stasis'.

CONCLUSION: The researcher concluded that DN pathogenesis was related to liver and kidney deficiency, and Qi and Yin deficiency. Blood stasis, heat, dampness, phlegm and dryness were the major pathogenesis factors in DN and may interact with each other, resulting in complex pathogenesises such as blood stasis-heat.

COMMENTS: This study gave an insight on treating DN patients with Chinese herbal medicine and had particularly explained the observed pathogenesises, symptoms and syndromes, and their related prescribed herbs. However, some clarification is needed

in the methodology section. Firstly, the author stated that 'effective cases' of DN were examined, but there were no details with regard to the criteria for such cases. Secondly, the forms of herbs prescribed to the patients (whether granule or raw) were not specified. In presenting the correlation of herbs with symptoms and syndromes, the degrees of correlation were not reported. With regard to the reported percentages of syndromes, the authors explained that each patient may have more than one syndrome during each visit, therefore allowing percentages to go over 100%. The example given was that when a patient diagnosed with both 'kidney deficiency and liver excess' and 'Yin deficiency leading to heat-dryness' in one visit, the 'deficiency' syndrome was counted twice. However, when combining the figures under the umbrella of non-specific 'deficiency', it should only be counted once, considering that the patient is deficient, regardless of the number of specific 'deficiency' syndromes involved. Nonetheless, this is a good study showing how records of Chinese medicine patients can be retrospectively studied in order to better understand and learn from the clinical experiences of Chinese medicine practitioners.

Su K, Zhu F, Guo L, Zhu Y, Li W and Xiong X. Retrospective study on Professor Zhongying Zhou's experience in Traditional Chinese Medicine treatment on diabetic nephropathy. J Tradit Chin Med. 2013;33(2)262-7.

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