

# Traditional Chinese acupuncture does not improve outcomes from post-stroke motor rehabilitation

## Synopsis

**Sze FK, Wong E, Yi X and Woo J (2002): Does acupuncture have additional value to standard poststroke motor rehabilitation? *Stroke* 33: 186-194. [Prepared by Karen Grimmer, Editorial Board member.]**

**Question:** Does acupuncture improve outcomes in patients after acute stroke? **Design:** Randomised controlled trial. **Setting:** Hong Kong stroke rehabilitation unit. **Patients:** One hundred and six Chinese patients, enrolled 3-15 days after acute stroke, stratified first into moderate or severe impairment groups, then randomised into two treatment groups (overall 13% dropout rate). **Interventions:** Treatment was for 10 weeks for all subjects. Control group (N = 62) received only traditional care (inpatients for five weeks, then rehabilitation day hospital for five weeks). The intervention group (N = 44) also had traditional care plus an average of 35 sessions of acupuncture lasting 30 minutes per session. Traditional Chinese acupuncture was provided in a standardised manner to 10 well described acupoints by the one experienced practitioner, five times per week for three weeks as inpatients, then as day hospital patients (three times per week for five weeks, then twice per week for the final two weeks). Traditional care included physiotherapy (5 sessions per week of 60 minutes each session of Bobath-based treatment), occupational therapy (five sessions per week of 45 mins each session), speech therapy and psychology as indicated, daily medical assessment and nursing. Drug therapy (antiplatelet and anticoagulants) was prescribed as required. **Outcomes:** Primary outcome: Fugl-Meyer Motor Assessment (motor recovery). Secondary outcomes: Barthel Index (functional disability), FIM (functional, communication, cognitive disability), AMT (Abbreviated Mental Test (cognitive impairment)), NIH Stroke Scale (neurological impairment), all scored at 0, 5 and 10 weeks by blinded assessors. **Results:** No significant differences were found for any outcome measure, comparing control and intervention groups at any stage in the study. For example, for subjects who were moderately impaired at baseline, by 10 week follow-up the median improvement in the intervention group was 18.8 points (interquartile range (IQR) 6.2-26.9) on the 100-point Fugl-Meyer Motor Assessment scale and in the control group was 14.5 points (IQR 4.0-26.4) (Mann Whitney U test  $p = 0.280$ ). For the severe stroke sub-group, the intervention group improved by a median of 9.8 points (IQR 4.2-19.8) and the control group by 12.7 points (IQR 8.6-26.3) (Mann Whitney U test  $p = 0.200$ ). **Conclusion:** The addition of a standardised traditional Chinese acupuncture treatment does not enhance the outcomes of traditional management of acute stroke.

## Commentary

Clinicians working in post-stroke rehabilitation settings are frequently asked by clients and families about the efficacy of various complementary therapies, in order to enhance outcomes from stroke. This is understandable given the potentially devastating and long term nature of the impairments and restrictions on activities in all aspects of daily life that can result from stroke, affecting not just individuals but also their families and friends.

This article provides valuable information about the effectiveness of traditional Chinese acupuncture in the management of the acute post-stroke phase. The authors have conducted a rigorous randomised controlled trial using as a control, standard multidisciplinary post-acute stroke rehabilitation, and added standardised traditional Chinese acupuncture as an adjunct to this management. They have described the subjects, and the treatment provided to control and intervention subjects sufficiently rigorously to allow replication of the study in other settings.

They also used a range of usual stroke outcome measures to estimate the effectiveness of treatment in aspects of impairments and disability, and recovery of motor control. They concluded that traditional Chinese acupuncture offers no additional benefit in terms of motor outcomes, or changes in cognition and disability, compared with standard therapy alone. Given the rigour of the study, and the range of outcome measures used, there seems little debate that this form of treatment is not effective in this setting. Such studies are important to enable clinicians and consumers to be informed in their choice of alternative modalities.

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