

## 9. Cardiovascular Diseases

### Reference

Ryu SH, Lee KS, Kim TK, et al. Effects of electroacupuncture on the hemiplegic upper extremity after stroke. *Daehan-Hanui-Hakhoeji (Journal of Korean Oriental Medical Society)* 2002; 23(2): 180–9 (in Korean with English abstract).

### 1. Objectives

To evaluate the effectiveness of electroacupuncture for upper extremity hemiplegia after stroke.

### 2. Design

Randomized controlled trial (RCT).

### 3. Setting

One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

### 4. Participants

Patients with cerebral infarction and Fugl-Meyer motor score below 46 before treatment within two weeks of stroke onset (n=40).

### 5. Intervention

Arm 1: Conservative therapy + electroacupuncture (25–50 Hz) for 4 weeks, 6 rounds per week, 20 minutes per round applied to the Quchi (LI11, 曲池)- Shousanli (LI10, 手三里), Waiguan (TE5, 外關)- Hegu (LI4, 合谷) acupuncture points (n=20).

Arm 2: Conservative therapy (n=20).

### 6. Main outcome measures

Fugl-Meyer motor assessment, muscle strength at the shoulder and elbow joint, the subsection of the modified Barthel Index (involving drinking, feeding, dressing the upper body, and grooming).

### 7. Main results

Fugl-Meyer motor assessment score tended to be higher in Arm 1 than in Arm 2 ( $P=0.061$ ). The improvements in muscle strength and coordination at the shoulder and elbow joint were significantly greater in Arm 1 ( $P=0.008$  and  $0.047$ , respectively), but the improvements in muscle strength and coordination at the hand and wrist were similar in both groups. There were no between-group differences in drinking, feeding, dressing the upper body, and grooming after treatment.

### 8. Conclusions

Electroacupuncture has efficacy for upper extremity paralysis after stroke.

### 9. Safety assessment in the article

No significant adverse events during 4 weeks of observation.

### 10. Abstractor's comments

This study evaluated the effectiveness of electroacupuncture for upper extremity paralysis after stroke. As the number of subjects was small and conservative therapy was used with electroacupuncture, the result is not conclusive. Moreover, the follow up period was only 4 weeks, so the long-term effect of electroacupuncture remains unclear. Thus, additional studies are needed.

### 11. Abstractor and date

Go HY, 18 July 2010.