

## 9. Cardiovascular Diseases

### Reference

Ryu HJ, Kim SS. Effect of electroacupuncture by different insertion method on upper limb function in post stroke patients with hemiplegia. *Hanbang-Jaehwal-Uihakgwa-Hakhoeji (Journal of Oriental Rehabilitation Medicine)* 2006; 16(1): 49–61 (in Korean with English abstract).

### 1. Objectives

To evaluate the effect of electroacupuncture on upper extremity function in hemiplegic patients after stroke.

### 2. Design

Randomized controlled trial (RCT).

### 3. Setting

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

### 4. Participants

Stroke patients with hemiplegia more than 2 weeks after onset and stable vital signs (n=28).

### 5. Intervention

Electroacupuncture was administered for 20 minutes per round, 6 rounds per week for 4 weeks.

Arm 1: Conservative therapy + electroacupuncture applied to the Quchi (LI11, 曲池)- Shousanli (LI10, 手三里) and Jianyu (LI15, 肩髃)- Naoshu (SI10, 臑兪) acupuncture points, with oblique insertion 3 cm deep (not into the muscle) (n=13).

Arm 2: Conservative therapy + electroacupuncture applied to the Quchi (LI11, 曲池)- Shousanli (LI10, 手三里) and Jianyu (LI15, 肩髃)- Naoshu (SI10, 臑兪) acupuncture points with vertical insertion 3 cm deep (into the muscle) (n=15).

### 6. Main outcome measures

Upper extremity muscle strength evaluation, Fugl-Meyer score, and Modified Barthel Index (MBI).

### 7. Main results

- 1) There was no between-group difference in muscle strength at the shoulder and elbow joints before and after treatment, but there was a tendency toward increased strength in Arm 1.
- 2) Fugl-Meyer score was significantly higher in Arm 1 than in Arm 2 ( $P=0.043$ ).
- 3) The between-group difference in MBI was not significant.

### 8. Conclusions

Electroacupuncture may help restore upper extremity function in hemiplegic patients after stroke. Oblique acupuncture (stimulation of the fascia) is more effective than vertical acupuncture (stimulation of the muscle).

### 9. Safety assessment in the article

Not mentioned.

### 10. Abstractor's comments

This study compared the effectiveness of oblique electroacupuncture with vertical electroacupuncture (two variations of the method differing only in needle insertion orientation). Additional studies with more patients and for longer periods are needed.

### 11. Abstractor and date

Go HY, 18 July 2010.