# 9. Cardiovascular Diseases

## Reference

Kim MB, Chung SK, Kim SS. The influences of Chuna (shoulder traction) therapy for shoulder pain and range of movement in hemiplegic patients after stroke. *Hanbang-Jaehwal-Uihakgwa-Hakhoeji* (*Journal of Oriental Rehabilitation Medicine*) 2007; 17(2): 185–98 (in Korean with English abstract).

### 1. Objectives

To evaluate the effectiveness of Chuna (shoulder traction) therapy for shoulder pain 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 shoulder pain (over grade 4 on a visual analogue scale [VAS]) and limited shoulder range of motion (ROM) (n=60).

### 5. Intervention

Arm 1: Conservative therapy + Chuna (shoulder traction, basically once a day for 2 weeks, a total of 10 treatments) (n=30).

Arm 2: Conservative therapy only (n=30).

## 6. Main outcome measures

Among the participants, 10 subjects dropped out during the study (4 in Arm 1, 6 in Arm 2). VAS score for elbow joint pain intensity, passive range of motion of the shoulder joint, MRC (Medical Research Council) score for muscle strength, Meridian-Electromyograph Analysis, and Shoulder Subluxation analysis.

### 7. Main results

The VAS score for elbow joint pain intensity was significantly decreased after two weeks of treatment in Arm 1 (4.76 $\pm$ 2.26 *vs*. 7.75 $\pm$ 1.83 before treatment, *P*=0.000), and shoulder joint ROM (including abduction, adduction, external rotation, and internal rotation) was significantly improved. At the end of treatment, the VAS scores were decreased in both groups (Arm 1=2.98 $\pm$ 2.20, Arm 2=0.67 $\pm$ 1.70; *P*=0.000).

### 8. Conclusions

Chuna (shoulder traction) may relieve shoulder pain in hemipletic patients after stroke.

## 9. Safety assessment in the article

Not mentioned.

### **10.** Abstractor's comments

This study evaluated the effectiveness of Chuna (shoulder traction) for shoulder pain in hemiplegic patients after stroke. Insofar as Chuna improves the ROM and reduces pain, it can be helpful for the rehabilitation in stroke patients. But, as the number of patients was small and patients were not followed up after the end of treatment, additional studies are needed.

### **11. Abstractor and date**

Go HY, 18 July 2010.