

### 13. Diseases of the Musculoskeletal and Connective Tissue

#### Reference

Itoh K, Katsumi Y, Hirota S, et al. Randomised trial of trigger point acupuncture compared with other acupuncture for treatment of chronic neck pain. *Complementary Therapies in Medicine* 2007; 15: 172–9. Pubmed ID: 17709062

#### 1. Objectives

To evaluate the effectiveness of trigger point acupuncture for chronic neck pain.

#### 2. Design

Randomized controlled trial (RCT).

#### 3. Setting

The Meiji University of Oriental Medicine Hospital, Kyoto, Japan.

#### 4. Participants

Forty patients aged 45 years or more with neck pain for at least 6 months.

#### 5. Intervention

Arm1: Trigger point acupuncture group. Acupuncture at trigger points using disposable stainless steel needles (0.2×50 mm, Seirin Co., Ltd.) (n=10).

Arm 2: Standard acupuncture group. Disposable stainless steel needles (0.2×40 mm, Seirin Co., Ltd.) were inserted into muscle to 20 mm at the standard acupuncture points for neck pain, the GB20 (風池), GB21 (肩井), BL10 (天柱), BL11 (大杼), ST12 (缺盆), ST13 (氣戶), TE5 (外關), LI4 (合谷), and SI3 (後谿), and then the sparrow pecking technique was applied and the needles retained for 10 minutes after the *de qi* (得氣) sensation was achieved (n=10).

Arm 3: Non-trigger point acupuncture group. Disposable stainless steel needles (0.2×50 mm, Seirin Co., Ltd.) were used for acupuncture at non-tender points at least 50 mm away from trigger points in the same muscle (n=10).

Arm 4: Sham acupuncture group. Sham needles, stainless steel needles (0.2×50 mm) with the tips cut off, were used. The acupuncturist simulated insertion at trigger points, the sparrow pecking technique was applied, and then removal after 10 minutes (n=10).

Each group received two phases of acupuncture treatment, each phase comprising three treatments, one per week (3 weeks), with a 3-week period of no treatment between phases (total 13 weeks).

There were 2 dropouts each from Arms 1, 2, and 3, and 3 from Arm 4.

#### 6. Main outcome measures

Visual analogue scale (VAS) score for neck pain intensity before the first treatment, and 1, 2, 3, 6, 7, 8, 9, and 12 weeks after the first treatment (total 9 times). Neck Disability Index (NDI) score before the first treatment, and 3, 6, 9, and 12 weeks after the first treatment (total 5 times).

#### 7. Main results

VAS and NDI scores both improved significantly from baseline (pre-treatment) to 3 weeks after the first treatment in Arm 1 (both  $P<0.01$ ) and compared to the other three groups (both  $P<0.01$ ), after phase 2 treatment (9th week) in Arm 1.

#### 8. Conclusions

Trigger point acupuncture is more effective for chronic neck pain than standard acupuncture.

#### 9. From acupuncture and moxibustion medicine perspective

Treatment location, method, and stimulation intensity are three important factors in the effectiveness of acupuncture. Nociceptors with increased sensitivity are involved in the mechanism that makes trigger point treatment effective.

#### 10. Safety assessment in the article

Three of the participants who dropped out suffered symptom aggravation.

#### 11. Abstractor's comments

This study is highly commendable for its design and for having verified the effects of trigger point acupuncture by comparing it to standard acupuncture, non-trigger acupuncture, and sham acupuncture. The authors also report on sham acupuncture and the success of masking. Another aspect of this study is the interval between the two treatment phases and what follows. The authors touch on the time course after the interval, but this should have been described in greater detail, given that the question of whether the effects last is very important. Overall, it is a significant study based on an excellent design.

#### 12. Abstractor and date

Hosaka M, 11 September 2011.