

19. Injury, Poisoning and Certain Other Consequences of External Causes

Reference

Jeon TD, Lee HG, Hong SY, et al. The clinical studies for muscle energy techniques on patients with nuchal pain caused by traffic accidents. *Hanbang-Jaehwal-Uihakgwa-Hakhoeji (Journal of Oriental Rehabilitation Medicine)* 2009; 19(1): 125–34 (in Korean with English abstract).

1. Objectives

To evaluate the effectiveness of muscle energy techniques for nuchal pain caused by injuries from traffic accident trauma.

2. Design

Randomized controlled trial (RCT).

3. Setting

One Oriental hospital (Dunsan Oriental Hospital of Daejeon), Republic of Korea.

4. Participants

Patients with nuchal pain due to injuries caused by traffic accident trauma, with cervical spine deformity on cervical spine X-ray, and hospitalized in Dae-Jeon Oriental Hospital, Department of Oriental Rehabilitation Medicine, between July 2008 and October 2008 (n=20).

5. Intervention

Arm 1: Treatment group (n=10). Acupuncture + Oriental physiotherapy + Oriental drug treatment (Danggwisan (當歸鬚散) + Muscle energy technique (5 times a week, during the Ante Meridiem [AM] hours. applied to the problematic muscle after evaluating the sternocleidomastoid, trapezius, levator scapulae, and scalene muscles.

Arm 2: Control group (n=10). Acupuncture applied to the Jianjing (GB21, 肩井), Jianzhongshu (SI15, 肩中俞), Jianwaishu (SI14, 肩外俞), Shenshu (BL23, 腎俞), Qihai (BL24, 氣海俞), Dachangshu (BL25, 大腸俞), Zhishi (BL52, 志室), Taibai (SP3, 太白), Taiyuan (LU9, 太淵), and Quchi (LI11, 曲池) acupoints + Oriental physiotherapy + Oriental drug treatment (Danggwisan, 當歸鬚散).

6. Main Outcome Measures

Scores on the McGill Pain Questionnaire-Short Form (SF-MPQ), visual analogue scale (VAS) for pain, Pain Disability Index (PDI), Neck Disability Index (NDI).

7. Main Results

The SF-MPQ sensory subscore, pain VAS, PDI, and NDI scores were significantly decreased in both groups ($P<0.05$). The decrease in VAS and PDI scores were significantly greater in Arm 1 than Arm 2 ($P<0.05$).

8. Conclusions

Treatment with the combination of muscle energy with Oriental medicine treatment is more effective than treatment with Oriental medicine alone for nuchal pain caused by injuries due to traffic accident trauma.

9. Safety assessment in the article

Not mentioned.

10. Abstractor's comments

This study evaluated the effectiveness of the muscle energy technique for nuchal pain after traffic accident trauma. The SF-MPQ, VAS, PDI and NDI scores were significantly improved in both groups, but treatment in Arm 1 was more effective than treatment in Arm 2 by all measures, especially VAS and PDI scores, which were significantly different between groups. Although PDI and NDI scores reflect ability to perform similar activities of daily life, they are subjective measures and the number of patients was small. An additional clinical trial with a large number of patients for a longer period is needed.

11. Abstractor and date

Cho SH, 13 July 2010.