13. Diseases of the Musculoskeletal and Connective Tissue

Reference

Shinohara S. Clinical effects of acupuncture (intradermal needles) based on the muscle meridians for the complaints on the joints and muscles during movements. *Meiji Shinkyu Igaku* (*The Bulletin of Meiji University of Oriental Medicine*) 2000; 26: 65–80 (in Japanese with English abstract). Ichushi Web ID: 2001218258

1. Objectives

To evaluate the efficacy of intradermal acupuncture based on the muscle meridians for relieving locomotor complaints (pain, stiffness, rigidity, and twitching during movement).

2. Design

Randomized controlled trial using sealed envelopes for allocation (RCT-envelope).

3. Setting

Center of Acupuncture Science, the Meiji University of Oriental Medicine (current Meiji University of Integrative Medicine); Outpatient Clinic of the Department of Orthopedic Surgery, the Meiji University of Oriental Medicine Hospital, Kyoto, Japan.

4. Participants

Ninety patients with locomotor complaints. The mean ages for three groups were: 61.4, 63.9 and 62.4 years, respectively.

5. Intervention

Arm 1: Real meridian treatment group: intradermal needle was inserted (transverse insertion, 0.2–0.5 mm) at the brook point (栄穴) on the periphery of the muscle meridian passing the site related to the complaints, and fixed with bandages (n=30).

Arm 2: Sham treatment group (n=30): at the same point as in Arm 1, intradermal needle was discarded just before the insertion and bandage fixation was applied.

Arm 3: Other meridian treatment group (n=30): intradermal needle was inserted (transverse insertion, 0.2–0.5 mm) at the brook point (栄穴) on the muscle meridian adjacent to that treated in Arm 1, and fixed with bandages (n=30).

Two patients in Arm 3 dropped out.

6. Main outcome measures

Visual Analog Scale (VAS) score for pain during movement.

7. Main results

VAS score improved significantly before and after the treatment in Arms 1 and 2 ($P=0.0001$ and $P=0.0287$, respectively), whereas it did not change significantly in Arm 3. The greatest improvement in the score was seen in Arm 1. Also, reduction (“change” in the text) in VAS score was significantly greater in Arm 1 compared with Arm 2 ($P<0.01$) and Arm 3 ($P<0.001$).

8. Conclusions

Intradermal acupuncture based on the muscle meridians is effective for relieving locomotor complaints.

9. From acupuncture and moxibustion medicine perspective

The author mentioned that the muscle meridian, described in “Ling Shu (霊枢)”/Jing jin Muscle Regions Along Meridians (経筋篇) (No. 13), is a specific meridian system that controls functions of the locomotor system.

10. Safety assessment in the article

Not mentioned.

11. Abstractor’s comments

This article is valuable in that the authors described the significance of using muscle meridians for locomotor system control, based on the analysis of classic literature, and then attempted, in a clinical study, to prove a working hypothesis that muscle meridian-based treatment might contribute to the improvement of locomotor complaints. The author’s attempt to evaluate the original effects of intradermal acupuncture on locomotor complaints, rather than on disorders, is also appreciated. Some improvements may be needed in the following aspects: 1) the author did not mention sham needle when obtaining informed consent; 2) VAS was the only outcome measure; 3) only direct effects immediately after the treatment were evaluated and no follow-up was carried out; and 4) masking status was not evaluated. Further development of studies on the muscle meridians is anticipated.

12. Abstractor and date

Wakayama I, 9 September 2011.