13. Diseases of the Musculoskeletal and Connective Tissue

Reference

Itoh, K, Katsumi Y, Kitakoji H. Trigger point acupuncture treatment of chronic low back pain in elderly patients—a blinded RCT. *Acupuncture in Medicine* 2004; 22(4): 170–7 (in Japanese with English abstract). Pubmed ID: 15628774

1. Objectives

To evaluate the effect of acupuncture on pain intensity and quality of life (QOL) in patients with chronic low back pain by comparing two types of trigger point acupuncture treatment and standard acupuncture treatment.

2. Design

Randomized controlled trial (RCT).

3. Setting

Department of Orthopaedic Surgery, the Meiji University of Oriental Medicine (current Meiji University of Integrative Medicine) Hospital, Kyoto, Japan.

4. Participants

Thirty-five outpatients aged 65 years or older with low back pain for at least 6 months (10 males and 25 females, age range, 65–81 years).

5. Intervention

Arm 1: Superficial needling to trigger points group. Stainless steel needles (0.2×50 mm) were inserted to a depth of 3 mm and the sparrow pecking technique was applied. After *de qi* (得気) sensation was obtained, the needles were retained for 10 minutes (n=12).

Arm 2: Deep needling to trigger points group. Similar stainless steel needles were inserted to a depth of 20 mm and the sparrow pecking technique was applied. After the local muscle twitch response was observed, the needles were retained for 10 minutes (n=10).

Arm 3: Standard acupuncture group. Similar stainless steel needles were inserted to a depth of 20 mm at the BL23 (腎俞), BL25 (大腸俞), GB30 (環跳), BL40 (委中), BL60 (崑崙), and GB34 (陽陵泉) acupoints and up to 4 *ah-shi* points (阿是穴). The sparrow pecking technique was applied. After *de qi* sensation was obtained, the needles were retained for 10 minutes (n=13).

One session consisted of 3 once-weekly 30-minute acupuncture treatments and two sessions were performed with an interval between the sessions. Total treatment duration was 12 weeks.

Three patients in Arm 1, 1 in Arm 2, and 4 in Arm 3 dropped out.

6. Main outcome measures

Pain intensity measured on a visual analogue scale (VAS), and QOL using the Roland Morris Disability Questionnaire (RMDQ).

7. Main results

In Arm 2, VAS score after the treatment was significantly decreased compared with the pre-treatment value ($P<0.01$), whereas in the other 2 arms, no significant change in the score was observed. Similar results were obtained for RMDQ scores.

8. Conclusions

Deep needling to trigger points is more effective on low back pain in the elderly compared with superficial needling to trigger points or standard acupuncture.

9. From acupuncture and moxibustion medicine perspective

None.

10. Safety assessment in the article

Worsening of symptoms was observed in 1 patient in Arm 2.

11. Abstractor's comments

This valuable study attempted to test the efficacy of three different acupuncture treatments. In particular, the authors' effort to demonstrate the importance of the depth of needle insertion in trigger point treatment is appreciated. It is also interesting that time series of outcome measures were observed by using the ABAB method.

The authors found significant pre- to post-treatment differences, but no difference among the three arms. Thus, although deep needling to trigger points may be superior to the other two treatments, further validation is needed. Also, sample size should be increased, and follow-up extended.

12. Abstractor and date

Wakayama I, 9 September 2011.