13. Diseases of the Musculoskeletal and Connective Tissue

Reference

Kawase Y, Ishigami T, Nakamura H, et al. Acupuncture treatment for lower back pain - Multi-center randomized controlled trial using sham acupuncture as a control. *Zen Nihon Shinkyu Gakkai Zasshi* (*Journal of the Japan Society of Acupuncture and Moxibustion*) 2006; 56(2): 140–9 (in Japanese with English abstract). Ichushi Web ID: 2006225874

1. **Objectives**

   To compare the efficacy of taikyoku therapy and low-frequency electro-acupuncture for low back pain.

2. **Design**

   Randomized controlled trial (RCT).

3. **Setting**

   Eleven acupuncture and moxibustion clinics, Aichi and Gifu, Japan.

4. **Participants**

   Sixty-four patients who presented to the clinic for the first time with low back pain as a main complaint (36 males and 28 females).

5. **Intervention**

   Arm 1: Taikyoku therapy+electro-acupuncture. Treatments for Arm 2 and Arm 3 were combined (n=12).

   Arm 2: Taikyoku therapy alone. Using disposable stainless steel needles (0.18×30 mm), single needling technique was applied at Kurono's basic meridian points for total body conditioning, CV12 (中脘), LR14 (期門), ST25 (天枢), CV6 (気海), BL10 (天柱), GB20 (風池), BL11 (大杼), GB21 (肩井), BL13 (肺兪), BL14 (厥陰兪), BL20 (脾兪), BL23 (腎兪), and BL25 (大腸兪) (n=13).

   Arm 3: Electro-acupuncture alone. Disposable stainless steel needles (0.2×30 mm) were inserted to a depth of 5–7 mm at the BL23 (腎兪) and BL40 (委中) acupuncture points. Electro-stimulation was applied for 5 minutes with a frequency of 5 Hz and a voltage of 2 V (n=20).

   Arm 4: Sham acupuncture. Without using needles, guide tubes were tapped at the BL20 (脾兪), BL23 (腎兪), and BL25 (大腸兪) acupuncture points. Eventually, electro-acupuncture for Arm 2, taikyoku therapy for Arm 3, and electro-acupuncture+taikyoku therapy for Arm 4 were additionally administered (n=19).

6. **Main outcome measures**

   Visual Analog Scale (VAS) score for pain intensity and score for the Japanese Orthopaedic Association Back Pain Evaluation Questionnaire (JOA score); both scores were measured before the treatment, after the assigned treatment, and after the final treatment.

7. **Main results**

   When comparing pre- and post-treatment values, significant improvements in both VAS and JOA scores were observed in Arm 1, Arm 2, and Arm 3 ($P<0.05$ for all), but not in Arm 4. Between-arm comparisons revealed significant improvements in Arm 1, Arm 2, and Arm 3 compared with Arm 4 ($P<0.05$ for all).

8. **Conclusions**

   Taikyoku therapy and low-frequency electro-acupuncture are effective for low back pain.

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

   Not mentioned.

10. **Safety assessment in the article**

    Not mentioned.

11. **Abstractor's comments**

    Although there is imbalance in the number of enrolled patients at each institution as well as the number of randomized patients in each arm, this study is highly appreciated for indicating future possibilities of conducting high quality multicenter RCT. In multicenter clinical studies, lack of the standardization of therapy makes an integrated evaluation difficult. In that regard, the technical gap among institutions was minimized by measures, including frequent training, in this study; the minimized gap also made the study meaningful.

12. **Abstractor and date**

    Hosaka M, 11 September 2011.