

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

#### Reference

Kinoshita H, Kinoshita N. Clinical research in the use of paraneural acupuncture for sciatica. *Nihon Shinkyu Chiryō Gakkaishi (The Journal of the Japan Acupuncture and Moxibustion Society)*. 1981; 30(1): 4–13 (in Japanese with English abstract).

#### 1. Objectives

To compare the effectiveness of paraneural and with that of non-paraneural acupuncture for sciatica.

#### 2. Design

Crossover randomized controlled trial (RCT cross-over).

#### 3. Setting

Not described.

#### 4. Participants

Thirty sciatica patients (regardless of primary disease) enrolled from August 1979 to February 1980.

#### 5. Intervention

Arm 1: Paraneural acupuncture group. Stainless steel needles (0.2×50 mm) were inserted at the left and right BL23 (腎俞), healthy-side BL25 (大腸俞), affected-side Shangbaohuang (上胞育, no WHO code), Dianya (殿压, no WHO code), BL37 (殷門), Waichengjin (外承筋, no WHO code), and BL59 (附陽), depending on the case) acupuncture points, to 2.0 cm depth (haunches) or 1.5 cm (legs). Needles were inserted then immediately removed in lumbar locations, but retained (15 minutes) in the buttocks and lower extremities. In addition, five moxa cones (large rice-grain size) were burnt at the affected-side BL25 (大腸俞), Shangbaohuang (上胞育, no WHO code), Dianya (殿压, no WHO code), and Waichengjin (外承筋, no WHO code) points. Stainless steel needles (0.25×90 mm) were also inserted at the affected-side BL25 (大腸俞) point and the trochanter to a depth of 6.0 cm and retained for 15 minutes (n=30).

Arm 2: Non-paraneural acupuncture group. Same as paraneural acupuncture group, however, needles were retained at the affected-side BL25 (大腸俞) acupuncture point and the trochanter to a depth of 2.0 cm for 15 minutes (n=30).

Thirty patients were randomly allocated to two groups (A and B). Group A received paraneural acupuncture six times, then non-paraneural acupuncture six times. The order of treatment was reversed for group B.

Thirteen participants dropped out of Arm 1, and 12 from Arm 2.

#### 6. Main outcome measures

Amount of tenderness (kg) at the Dianya (殿压) and Waichengjin (外承筋) points, Lasègue's sign (patient experiences slight pain when raising the straight leg 30–70 degrees), and subjective symptoms (four-point scale: very good=2, good=1, no change=0, and bad=-1).

#### 7. Main results

Dianya (殿压) tenderness ( $P<0.01$ ), Waichengjin (外承筋) tenderness ( $P<0.05$ ), Lasègue's sign ( $P<0.01$ ), and subjective symptoms ( $P<0.01$ ) improved after six treatments in a significantly higher percentage of patients in Arm 1 than in Arm 2.

#### 8. Conclusions

Paraneural acupuncture is the more effective treatment for sciatica.

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

Acupuncture into the muscle located beside a nerve branch may relieve symptoms completely.

#### 10. Safety assessment in the article

Not mentioned.

#### 11. Abstractor's comments

This study was conducted in 1981, even before the acronym "EBM" had entered the Western medical lexicon. The authors used random allocation and crossover, which were absolutely cutting edge methods for the time, to compare the effectiveness of paraneural acupuncture to non-paraneural acupuncture for sciatica. It is truly a very important paper. The authors are to be congratulated for having conducted clinical research into acupuncture and moxibustion and achieved results using appropriate methods in that era. To their credit, they use quantitative outcome measures and classify participants according to sciatica type before allocating them randomly, which were both cutting-edge methods. The authors can also be commended for having their diagnoses checked by an orthopedic consultant.

Areas for improvement include the large participant drop-out rate, the lack of follow up of participants who dropped out, and the lack of an interval between the two interventions for washout.

#### 12. Abstractor and date

Wakayama I, 9 September 2011.