13. Diseases of the Musculo Skeletal System and Connective Tissue

Reference

1. Objectives
To compare the effect of ‘intramuscular bee venom herbal acupuncture’ and ‘intracutaneous bee venom herbal acupuncture’ in knee osteoarthritis patients.

2. Design
Randomized controlled trial (RCT).

3. Setting
One Oriental hospital (Kyunghee University Medical Center), Republic of Korea.

4. Participants
Patients with knee osteoarthritis and knee pain over 6 months (age, >40 years; n=45).

5. Intervention
Arm 1: Intramuscular bee venom herbal acupuncture (n=21), Treatment (0.5 cc/knee).
Arm 2: Intracutaneous bee venom herbal acupuncture (n=24). Treatment (0.1 cc per acupuncture point, total 0.5 cc) applied to the Heding (EX-LE2), Xiyan (EX-LE5, 膝眼), Dubi (ST35, 犢鼻), Zusanli (ST36, 足三里), and Ququan (LR8, 曲泉) acupuncture points.

Twice a week for 4 weeks, total 8 times.

6. Main outcome measures
Korean Pain Assessment Card score, Korean Western Ontario and McMaster Universities Osteoarthritis Index (KWOMAC) score, pain severity scored on a visual analogue scale (VAS), 36-Item Short-Form Health Survey (SF-36) score, Overall Outcome on a nine point scale.

7. Main results
Both treatments significantly decreased KWOMAC score. There was no significant between-group difference. Treatment in Arm 1 significantly increased subscores of the SF-36 for physical function (64.1±17.6 vs. 73.5±16.0 after treatment, P=0.006) and bodily pain (48.7±12.4 vs. 60.4±19.3, P=0.006). But there was no significant between-group difference. Both treatments significantly improved overall outcome, but there was no significant between-group difference.

Improvement in knee pain evaluated on a 9-point scale was evaluated as excellent (n=1, 5.9%), good (n=11, 64.7%), fair (n=3, 17.6%), and poor (n=2, 11.8%) in Arm 1 and excellent (n=0), good (n=10, 66.7%), fair (n=4, 26.6%), and poor (n=1, 6.7%) in Arm 2. The mean score were 5.8±2.0 and 5.6±1.1 in Arm 1 and Arm 2 respectively. Both treatments significantly improved overall outcome, but there was no significant between-group difference.

8. Conclusions
Both intramuscular and intracutaneous bee venom herbal acupuncture are effective with similar efficacy in knee osteoarthritis.

9. Safety assessment in the article
Itching (n=2, 11.8%), swelling (n=1, 5.9%), pain (n=1, 5.9%) were reported to be adverse effects of intramuscular treatment, and itching (n=4, 26.7%) and swelling (n=1, 6.7%) were reported to be adverse effects of intracutaneous treatment. These events were mild (Mueller Grade 0), and occurred with similar frequency in each group.

10. Abstractor’s comments
In this study, the method of randomization (computerized randomization, block size 4), criteria for inclusion and exclusion, use of concomitant drugs, and reasons for withdrawal were described in detail, and safety was assessed. The knee ultrasonography results are for future reference. The authors found no between-group difference and concluded that bee venom herbal acupuncture has efficacy, but no control treatment was included for comparison. The objectivity of the analysis could have been improved by addition of a control.

11. Abstractor and date
Kim JI, 24 June 2010.