

### 13. Diseases of the Musculo Skeletal System and Connective Tissue

#### Reference

Lee HJ, Park HJ, Chae YB, et al. Tai Chi Qigong for the quality of life of patients with knee osteoarthritis: a pilot, randomized, waiting list controlled trial. *Clinical Rehabilitation* 2009; 23(6): 504–11.

#### 1. Objectives

To evaluate the effect of Tai Chi Qigong (太極氣功) on the quality of life of patients with knee osteoarthritis.

#### 2. Design

Randomized controlled trial (RCT).

#### 3. Setting

HwaSeong City Health Center, Republic of Korea.

#### 4. Participants

Patients diagnosed with knee osteoarthritis defined as over grade II on the Kellgren-Lawrence Scale (n=44).

#### 5. Intervention

Computer-generated balanced block randomization was used for a 2:1 (Arm 1:Arm 2) allocation of participants.

Arm 1: Tai Chi Qigong treatment (n=29)

Arm 2: Just observation (n=15)

Tai Chi Qigong treatment: twice a week, 18 movements per round (1 hour) for 8 weeks (total 16 rounds).

Among 44 subjects enrolled, 3 subjects dropped out (1 in Arm 1, 2 in Arm 2).

Reasons for dropping out: conflict with professional activities (n=1), move to another place (n=1), no reason (n=1).

#### 6. Main outcome measures

Health status (Short Form 36 [SF-36] score); physical functioning (Western Ontario and McMaster Universities Osteoarthritis Index [WOMAC] score, elapsed time to walk 6 meters). Pretreatment measures were compared to posttreatment measures.

#### 7. Main results

Treatment significantly increased overall SF-36 score in Arm 1 compared to Arm 2 ( $64.4 \pm 20.9$  vs.  $55.1 \pm 17.5$ ,  $P=0.010$ ), as well as the mental ( $P=0.018$ ) and physical ( $P=0.030$ ) subscores, and significantly decreased the WOMAC pain subscore ( $-2.2 \pm 4.1$  vs.  $0.2 \pm 1.8$ ,  $P=0.030$ ) and walking time ( $5.9 \pm 1.0$  vs.  $6.7 \pm 1.8$ ,  $P=0.005$ ). However, there was no significant between-group difference in overall WOMAC score ( $20.8 \pm 18.7$  vs.  $28.5 \pm 19.6$ ,  $P=0.086$ ).

#### 8. Conclusions

Eight weeks of Tai Chi Qigong helps relieve symptoms and improves quality of life in patients with knee osteoarthritis.

#### 9. Safety assessment in the article

Not mentioned.

#### 10. Abstractor's comments

The study process as well as the number of drop-outs and reasons for dropping out were clearly described in a flowchart. Moreover, intent-to treat analysis was used to obtain an unbiased estimate of treatment efficacy. There was no blinding in this study, which is a limitation, due to the characteristics of the Tai Chi Qigong treatment. The SF-36 scores and 6-m walking time (but not WOMAC score) provided clear evidence of improvement.

#### 11. Abstractor and date

Kim JI, 24 June 2010.