

European Respiratory Society Annual Congress 2012

Abstract Number: 4095

Publication Number: P3525

Abstract Group: 1.2. Rehabilitation and Chronic Care

Keyword 1: Asthma - management **Keyword 2:** Exercise **Keyword 3:** Rehabilitation

Title: Effects of Tai Chi Qigong exercise training on asthma control

Prof. Sumalee 24317 Kiatboonsri sml_kt2@yahoo.com MD¹, Dr. Potjanee 24318 Korrungruang potjanee_krr@yahoo.com MD¹ and RN. Pornpimon 24319 Learsanantrakul numemee@windowlive.com¹.
¹ Division of Pulmonary and Critical Care Medicine, Department of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand, 10400 .

Body: Though exercise training increased exercise capacity in asthma, its effect on asthma control has not been well described. This study aims at exploring the impact of Tai Chi Qigong(TCQ) exercise training on asthma control. **Methods:** This prospective, case-control study recruited adult asthmatics with pre-bronchodilator FEV₁ of $\leq 75\%$ predicted. In addition to the self-monitored peak-expiratory flow rate(PEFR) and Asthma Control Questionnaires(ACQ), patients in TCQ and control groups were assessed at 0, 4 and 10 weeks. These included 6-minute walking distances(6MWD), pre and post-6MW spirometries and dyspnea indices(Borg), transitional dyspnea indices(TDI), Saint George Respiratory Questionnaires(SGRQ) and maximum inspiratory pressure(MIP). TCQ exercise trainings were provided to the TCQ group during week 4-10. **Results:** There were 29 and 8 patients in TCQ and control groups respectively. After TCQ training, the TCQ group demonstrated significant improvements in asthma control, i.e. ACQ (1.38 ± 0.83 vs 1.05 ± 0.81 , $p=0.011$) and PEFR variability(%) (18.10 ± 12.87 vs 12.8 ± 11.39 , $p=0.007$); 6MWD(meters) (461.66 ± 44.83 vs 478.28 ± 57.25 , $p=0.0378$); MIP(-cmH₂O) (81.07 ± 27.62 vs 91.1 ± 24.71 , $p<0.001$); Borg changes after 6MW (2.97 ± 1.57 vs 2.03 ± 1.15 , $p=0.0297$) and TDI (10.45 ± 2.26 vs 14.24 ± 4.06 , $p<0.0001$). Neither of these parameters improved with time in the control group. SGRQ improved in the TCQ group (25.02 ± 15.11 vs 21.13 ± 15.48 , $p=0.05$), but deteriorated in the control group (16.32 ± 11.81 vs 24.91 ± 17.03). **Conclusions:** TCQ exercise training improved asthma control. This finding and the associated improvements in exercise capacity, muscle strength and dyspnea signified that TCQ training could be considered an effective, adjunctive asthma-therapy.