

AAN: Tai Chi Helps Balance in Parkinson's

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Published: March 21, 2013

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SAN DIEGO -- Parkinson's disease patients who practiced tai chi had larger limits of stability and better sensory organization scores than those in a control group, researchers reported here.

Tai chi training was significantly associated with improvements in scores on the Sensory Organization Test from baseline (mean change 7.28, 95% CI 5.75 to 8.80, $P < 0.001$), according to Fuzhong Li, PhD, of Oregon Research Institute in Eugene, and colleagues.

And, compared with patients who were taught only stretching exercises, those who had tai chi training had significantly improved limits of stability from baseline (mean change 9.41, 95% CI 6.75 to 10.74), Li noted during a poster session at the meeting of the American Academy of Neurology.

"Tai chi originated as a martial art, but it's very focused on being centered," Li told *MedPage Today*. A slow, meditative, physical practice, tai chi requires participants to extend and reach from their center of gravity, and then return to that center.

Previous studies have shown a correlation between tai chi participation and improved sensory organization, but these studies have not looked at how the "training results in positive change in sensory integration of balance responses," according to the authors.

The study measured the sensory integration of balance responses and changes in limits of stability after a tai chi training intervention in a sample of 130 mild-to-moderate Parkinson's disease patients. Participants had a mean age of 69 and had a disease stage of 1 to 4 on the Hoehn and Yahr staging scale.

Patients were evenly randomized to a tai chi training intervention or a stretching exercise control group, which each met twice a week for 24 weeks.

Outcomes of the study included scoring on the Sensory Organization Test, which tested participants in a variety of conditions such as with eyes closed. Participants' limits of stability included posture excursions in eight directions. Measures for these outcomes were taken at baseline and at 3 months and 6 months.

In addition to the significant changes in sensory organization and improvements to limits of stability, Li also noted that participants in the tai chi training saw modest gains in lower-body strength, although he did not report figures for this outcome.

Li noted that retention of participants in the tai chi intervention was high -- roughly 85% -- at 6 months. He added that the intervention improved outcomes at low cost, requiring no equipment and with minimal supervision.

He also noted that future research should use a larger patient population, measure [fall risk and prevention](#), and include measures of patient-oriented outcomes.

Limitations of the study included the small size sample and the lack of specific measures for patients when they were on or off their medications.



Action Points

This study was published as an abstract and presented at a conference. These data and conclusions should be considered to be preliminary until published in a peer-reviewed journal.

Parkinson's disease patients who practiced tai chi had larger limits of stability and better sensory organization scores than those in a stretching control.

Note that participants in the tai chi condition saw modest gains in lower-body strength.

The study was funded by a grant from the NIH.

The authors declared no conflicts of interest.

Primary source: American Academy of Neurology

Source reference:

Li F, et al "Tai chi and limits of stability in patients with Parkinson's disease" *AAN* 2013; Abstract P04.031.

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