

AAN 73rd ANNUAL MEETING ABSTRACT

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Abstract Title: Feasibility and Tolerability Randomized Clinical Trial of Golf Versus Tai Chi for People with Moderate Parkinson's Disease

Press Release Title: Get Into the Swing: Golf May Have More Benefit for Parkinson's Than Tai Chi

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Objective: To determine the feasibility and tolerability of golf compared to Tai Chi. Secondary outcomes included objective and self-reported measures of balance.

Background: Physical exercise is a beneficial yet under-utilized intervention for Parkinson's disease (PD). Golf is a popular, low injury exercise that has been reported to improve balance and quality of life after stroke. We hypothesized that golf could be beneficial for PD and, given its popularity, it might have greater tolerability and adherence. We chose Tai Chi as the active comparator because of its effects on quality of life and balance in PD.

Design/Methods: This was a single-center rater-blinded randomized controlled trial of personalized golf instruction compared to Tai Chi for moderate PD (Hoehn & Yahr stage II-III). Participants were randomized 1:1, stratified by gender and H&Y score. Both arms were offered 10 weeks of two 60-minute group classes per week at no cost. Primary outcomes included feasibility and tolerability in participants with access to the intervention. Secondary outcomes included the Mini-BESTest of Balance (including the Timed Up and Go (TUG), the TUG-Cognitive) and the Activities Specific Balance Confidence Scale.

Results: 35 participants were randomized of whom 20 participants started classes, primarily due to instructor availability (8 golf and 12 Tai Chi). There was no significant difference in attendance; 62% of golfers vs 42% of Tai Chi completed $\geq 80\%$ of classes ($p=0.65$). Golfers improved by 0.96 seconds on the TUG vs worsening by 0.33 seconds in Tai Chi ($p=.023$). Overall satisfaction was similar, however 86% of golfers vs 33% of Tai Chi participants were "definitely" likely to continue the activity. Other than muscle pain from golf, there was no difference in falls or adverse events.

Conclusions: Golf was safe and as tolerable as Tai Chi. The results of this study support a larger study of golf for PD balance.

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