Effect of a Single Treatment of PARK-OMM Protocol on Balance in Parkinson’s Disease: A Pilot Study

Jessica Watari OMS III; Theresa Apoznanski OMS III; Joanne DiFrancisco-Donoghue, PhD, RCEP; Jayme Mancini, DO, PhD; George Cheriyan, DO; Sarah Curtis, DO; and Sheldon C. Yao, DO.

Department of Osteopathic Manipulative Medicine, New York Institute of Technology College of Osteopathic Medicine, Old Westbury, NY, 2015.

Category: Original Research

Context: Balance impairment is common in Parkinson’s disease (PD) and contributes to gait instability and falls. Osteopathic manipulative medicine (OMM) may play a role in managing balance disturbances in PD patients.

Objectives: To evaluate the effect of a single treatment of PARK-OMM protocol on balance test scores in PD subjects.

Methods: Subjects completed this randomized clinical trial at NYIT-COM’s Health Care Center. Six subjects were randomized to a 45-minute OMM protocol (PARK-OMM) consisting of articulatory, muscle energy, and myofascial techniques. Four subjects were randomized to a time-matched 45-minute counseling session. Balance tests were performed before and after the OMM or counseling session. Paired t-tests were used to measure change in balance test scores.

Results: There was a significant improvement in the mini-BESTest before OMM (M= 15.83, SD= 4.88) and after a single OMM session (M=19.17, SD= 4.88); t(5)=4.39, p = .007. There was no significant change in the mini-BESTest before counseling (M= 16.50, SD= 3.87) and after counseling (M=17.50, SD= 3.70); t(3)=-.679 , p = .546.

Conclusion: After a single session of PARK-OMM protocol, PD subjects showed improvement in balance as measured by the mini-BESTest. The results of this pilot study support an OMM treatment protocol that may acutely improve balance in PD subjects. Additional studies evaluating the long term effect of multiple applications of PARK-OMM on balance and falls is ongoing.

IRB approval: NYIT-IRB-BHS-975