E-Poster

EP-602

Comparison of Single Task Training *vs.* Dual Task Training on Gait, Balance and Cognitive Function in Parkinson's Disease

Topic: Miscellaneous

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BACKGROUND

Parkinson's disease (PD) is a degenerative disease of the CNS. Decline in motor and cognitive functions negatively influence the quality of life. Rehabilitation is an essential compliment to pharmacotherapy in the management of Parkinson's disease. Task-specific training has shown to improve functioning in PD. Addition of a secondary task along with the primary task, termed dual task training is also a currently used approach to enhance function in PD. There is a paucity of studies on the effect of dual task training on the cognitive function in PD patients. Hence, we aimed to assess and compare the effectiveness of Single Task Training (STT) and Dual Task Training (DTT) in Parkinson's disease patients in terms of gait and balance, cognition and disease progression.

METHODS

A prospective randomized comparative study was conducted among 38 PD patients in Department of PMR, from 1st April 2023 to 30th June 2024. After obtaining informed written consent, patients were randomly divided into two groups. Baseline assessment was done using Montreal Cognitive Assessment (MoCA), Berg Balance Scale (BBS), Six Minute Walk Test (6MWT), Timed Up and Go Test (TUG) and Unified Parkinson's Disease Rating Scale (UPDRS). Single task and dual task interventions were given for 6 weeks. The subjects were reassessed at six weeks and 12 weeks of intervention, Results were analyzed and compared.

RESULTS

Both groups were comparable at baseline. Both STT and DTT improved cognitive as well as gait parameters. DTT yielded a statistically significant superior outcome in MoCA scores (p value- 0.013), six minutes walking distance (p value- 0.01) and UPDRS part 1 (p value- 0.023), part 3 (p value- 0.01) and total score (p value- 0.012). The changes were observed with six weeks of intervention and the improvement in scores maintained six weeks after the intervention was stopped

CONCLUSION

Our findings revealed that both Dual task training and Single task training are effective methods of rehabilitation for Parkinson's disease patients. Dual Task Training yielded greater improvements in cognitive domains, some gait and balance parameters. These observations point out the importance of rehabilitative approaches based on dual-task training in Parkinson's Disease

Statement of Disclosures

None

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Doi: 10.5606/archisprm.2026.EP-602