Partial Body Weight-Supported Treadmill Training in Patients with Parkinson Disease: Impact on Gait and Clinical Manifestation. Article Link

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OBJECTIVE: To evaluate the effect of conventional gait training (CGT) and partial weight-supported treadmill training (PWSTT) on gait and clinical manifestation.

DESIGN: Prospective experimental research design.

SETTING: Hospital.

PARTICIPANTS: Patients with idiopathic Parkinson disease (PD) (N=60; mean age, 58.15±8.7y) on stable dosage of dopaminomimetic drugs were randomly assigned into the 3 following groups (20 patients in each group): (1) non-exercising PD group, (2) CGT group, and (3) PWSTT group.

INTERVENTIONS: The interventions included in the study were CGT and PWSTT. The sessions of the CGT and PWSTT groups were given in patient's self-reported best on status after regular medications. The interventions were given for 30min/d, 4d/wk, for 4 weeks (16 sessions).

MAIN OUTCOME MEASURES: Clinical severity was measured by the Unified Parkinson Disease Rating Scale (UPDRS) and its subscores. Gait was measured by 2 minutes of treadmill walking and the 10-m walk test. Outcome measures were evaluated in their best on status at baseline and after the second and fourth weeks.

RESULTS: Four weeks of CGT and PWSTT gait training showed significant improvements of UPDRS scores, its subscores, and gait performance measures. Moreover, the effects of PWSTT were significantly better than CGT on most measures. Link to article:

CONCLUSIONS and CLINICAL IMPLICATIONS: PWSTT is a promising intervention tool to improve the clinical and gait outcome measures in patients with PD. Exercise is effective in reducing falls in people with Parkinson disease. However, information on the cost effectiveness of this approach is lacking.