ROBOTIC ASSISTED GAIT TRAINING: EXPERIENCE FROM CORTICOBASAL DEGENERATION
Poster

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Corticobasal Degeneration (CBD) is a slowly progressive tauopathy, frequently associated with balance and gait impairments, poorly responding both to pharmacological and rehabilitative treatment. Aim of this case study is to report the effectiveness of a Robotic-assisted gait training program (RAGT) combined with a conventional physical therapy (CPT) on balance and gait performances in a CBD patient.
We describe the case of a subject diagnosed with CBD in 2013, hospitalized for physical therapy for asymmetric limb rigidity and apraxia, impaired balance and gait disturbances. Assessment: The patient was assessed, both clinically and instrumentally, at the beginning of hospitalization (T0) after 4 weeks of CPT (T1), subsequently, after 4 weeks of CPT+RAGT (T2) by mean of both clinical and instrumental tests. Clinical tests included: Movement Disorder Society-Unifield Parkinson's Disease Rating Scale motor subscore (MDS-UPDRSIII) to examine the degree of severity of the disease and Tinetti Test (TT) to evaluate the balance and gait ability. Instrumental assessment provided spatiotemporal gait parameters. The patient performed 4 consecutive weeks of CPT consisting in neuromotor exercises (24 sessions, 6 sessions/week, each session lasting 30 minutes) and traditional gait training (30 minutes/session) without significant clinical improvement. Due to lack of efficacy, 4 consecutive weeks of RAGT (24 sessions, 6 sessions/week, 30 minutes/session) added to a CPT were performed.
TT (T0): 8; TT (T1):10, TT(T2):15
MDS-UPDRSIII (T0): 50; MDS-UPDRSIII (T1): 47; MDS-UPDRSIII (T2): 42
RAGT combined with CPT seems to be effective also in people with CBD improving balance and gait disturbances more than conventional physical therapy on ground floor.

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