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SPINOCEREBELLAR ATAXIA – A CASE REPORT.

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Background: Spinocerebellar ataxia (SCA) is a progressive neurodegenerative disorder characterized by impaired coordination, balance deficits, and gait disturbances due to cerebellar dysfunction. These impairments significantly affect functional mobility and activities of daily living, leading to reduced independence and quality of life. Physiotherapy plays a crucial role in managing symptoms and improving functional outcomes in individuals with SCA.

Purpose: To evaluate the effectiveness of a structured physiotherapy rehabilitation program on coordination, balance, and gait in a patient with spinocerebellar ataxia.

Methods & Materials: This case report describes a 63-year-old female presenting with progressive gait unsteadiness, impaired coordination of upper and lower limbs, and reduced balance affecting daily activities. Clinical examination revealed ataxic gait, dysmetria, intention tremors, and decreased postural control. Functional assessment was performed using the International Cooperative Ataxia Rating Scale (ICARS) and Performance-Oriented Mobility Assessment (POMA). The patient underwent a structured physiotherapy program focusing on coordination training, balance re-education, and gait training. Interventions included task-oriented bimanual coordination exercises, Frenkel's exercises, dynamic balance training on unstable surfaces, and gait training with visual and auditory feedback using parallel bars. Strengthening and flexibility exercises targeting lower limb and trunk muscles were also incorporated. A home exercise program was prescribed to reinforce motor learning.

Results: Post-rehabilitation outcomes demonstrated improvements in coordination, balance, and gait parameters, along with a reduction in ataxic symptoms. Functional mobility and independence in daily activities were also enhanced, as reflected in improved ICARS and POMA scores.

Conclusion: Structured, task-specific physiotherapy interventions can improve motor performance and functional mobility in individuals with spinocerebellar ataxia. Early and continuous rehabilitation may facilitate neuroplasticity, optimize independence, and enhance quality of life despite the progressive nature of the condition

Keywords: Spinocerebellar ataxia, Physiotherapy rehabilitation, Coordination training, Gait training, Balance training.