

ABSTRACT SUBMISSION FORM

**USE OF A THERAPEUTIC RANGING/EXERCISE PROGRAM IN THE
REHABILITATION OF A PERSON WITH PROGRESSIVE SUPRANUCLEAR PALSY**

**JG Gianutsos, PhD, LC Oakes, BA, N Prufer, BA, V Kramskii, BA,
EF Richter III, MD (Department of Rehabilitation Medicine) and
M Hutchinson, MD, PhD (Department of Neurology) New York University
School of Medicine, New York, NY, USA**

A 73-year-old male diagnosed six years earlier with advanced Progressive Supranuclear Palsy (PSP), an atypical form of Parkinsonism, had deteriorated over several months despite attempts to adjust medication. He was non-ambulatory, wheelchair-bound and dependent in activities of daily living (ADL). He presented with generalized rigidity and bradykinesia, severe speech impediment, stooped posture, gait freezing and postural instability. His most disabling symptoms were unresponsive to levodopa. Computerized-testing over months of treatment documented change resulting from his participation in our therapeutic ranging/exercise program. During each weekly one-hour session, his legs were mechanically ranged on a linear displacement device for 15 minutes to increase joint range of motion. Then, he was supervised through an exercise regimen. Improvement in facial expression, speech volume, and tone were evident by month four. At 7 months his knees remained flexed, and excessive festination and inadequate stride length continued to render his gait untestable. At 9 months, he could jump, walk on a treadmill, and ambulated with a walker. By eleven months he stood unaided, walked 400 feet with assistance, and stepped adequately to permit computerized gait testing. Over the next 7 months his gait scores improved steadily from an original 40 range to a consistent 80 range.