Innovative Robotic Rehabilitation for Gait Disorders in Children with Cerebral Palsy

This presentation will explore the cutting-edge approach of robotic rehabilitation for treating gait disorders in children with Cerebral Palsy (CP) and related neurological conditions. We will share preliminary findings from an ongoing research project aimed at comparing the effectiveness of a Lexo robotic-assisted rehabilitation protocol with conventional physical therapy. Additionally, the study investigates the impact of robotic training on gait recovery in patients who have undergone Selective Dorsal Rhizotomy (SDR).

The study includes 10 patients with spastic diplegia who have undergone SDR at the IRCCS Istituto Giannina Gaslini (Genova, Italy), compared to a control group of equal size, also treated with SDR. We will also provide clinical recommendations for the application of the Lexo end-effector gait trainer, based on our experience with young children.