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Open Observational Multicenter Study on Effectiveness of Robotic Exercise for Functional Recovery of Upper Limb in stroke outcomes - ROBOTAS

The main objectives of the study are :

- 1) To evaluate the effectiveness on the recovery of the upper limb of the treatment with different types of robot-assisted devices (end-effectors and exoskeletons) in an open cohort of patients with cerebral ischemic and hemorrhagic stroke, in a clinical setting;
- 2) To evaluate the relation of demographic factors (age, sex, education, etc.), clinical (stroke type, neurological severity and stroke phase) and factors related to the training (eg frequency and duration of individual sessions), and robotic devices (end effector and exoskeleton, proximal, distal, active, passive) on functional outcomes.

Up till now , we have collected 110 patients, on six robotics machines (end effector and exoskeleton) widespread in our Country. Now, data relating mainly to two main groups of patients have been collected, referring to two macrocategories: MITmanus and Armeo Power, and the analysis are only preliminary. They are related to the MCID reached in postacute and in chronic patients with the different devices, to define patients "responder" and "not responder" throughout the population and relating the different devices , and try to define prognostic values for the robotic training at the starting assessment.

Being an observational study, of course, we can only hypothesize observations and relationships, which can, however, better suggest specific studies on robotic training.