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Recovery of hand function following stroke using the Feldenkrais Method:

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The background of the study:

Restoration of hand function following middle cerebral artery stroke remains a rehabilitation dilemma, especially if there is no return of function in the wrist and finger extensors. In this case study, we report the use of the Feldenkrais Method of rehabilitation in a patient, who was unable to use his right hand for any functional activities and demonstrated severe spasticity and sensory motor neglect. Feldenkrais lessons were administered 9 months after stroke when traditional occupational and physical therapy had failed.

The method used:

Nineteen sequenced Feldenkrais Functional Integration® lessons, 45 minutes each over a 4 months period were given. Each movement re-education lesson included therapeutic techniques for reducing spasticity, developmentally based movements, passive and active movements in functional planes, bimanual techniques, and imagery. In addition to manual muscle testing using the Medical Research Council (MRC) scale, we also performed a functional profile assessment before and after the lessons.

The results obtained:

The Feldenkrais Method recovered isolated muscle function (MMT-3/5) in 16 hand and wrist muscles where no (MMT-0/5) or minimal muscle contraction (MMT-1/5) occurred before. A four-month functional profile assessment demonstrated the recovery of simple hand, wrist, and forearm functions such as turning a key in the ignition, soft grasping, and finger and thumb opposition. Recovery of hand function occurred in a very organized way one finger at a time suggesting temporal cortical reorganization.

The conclusion reached:

The Feldenkrais Method of rehabilitation provided a sensory motor experience that increased the patient's motor power, sensory awareness, and fine motor coordination necessary to perform complex functional activities using his hemiplegic arm and hand. This was accomplished without the use of induced constraint, exercises, or repetitive tasks.