

Title:

The benefits of therapy with Gloreha glove at patient with central hemiparetic limb

Abstract:

The bachelor thesis deals with the usage of Gloreha robotic system in the process of rehabilitation of patients who experienced stroke with hemiparesis of the upper limb. The work is both theoretical and practical. In the theoretical part is described the kinesiology of the upper limb, the problem of stroke and the usage of the robotic systems of Gloreha in the process of rehabilitation. The practical part is based on case studies of four patients with a diagnosis of stroke in the age between 18 to 59 years. Each proband underwent ten therapies over two weeks. The case reports include entry and departure kinesiological examinations. The aim of the work is to evaluate the therapeutic benefits of the Gloreha. To assess the effect was used the MAS spasticity rate, the Motor Index and the active range of motion. Three out of four patients noticed an improvement in their spasticity level according to MAS scale in at least one of the observed segments and also an improvement in the active range of motion in the metacarpofalngial joints of the hand or an improvement in the active motility of the hemiparetic upper limb. In Motoricity index has been improved the strength of the upper limb in three out of four patients.

Key words: Gloreha, robotic system, stroke, physiotherapy