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The Mentamove Rehabilitation After Head Injury Patient with Left Thalamic Hematoma: Case Report

Z. Akgun¹, M. Akgun², C. Garner³

1 Uludag University School of Health PhD, TURKEY, 2 State Hospital of Bursa MD Neurosurgery, TURKEY, 3 KWA Clinic Stift Rottal Neurology and Neurorehabilitation MD, GERMANY

Web: www.mentamove.com.tr e-mail: info@mentamove.com.tr

Background: The “Brain Efficiency Training” Mentamove® is a neuro-rehabilitation method is used for the rehabilitation after various brain lesions. If the motoric activities are mentally practised by the subject with Mentamove®, the real movement gives a reorganisation to the brain due to neuroplasticity.

Methods: Our case has a 2.5x2.5 cm left thalamus after head injury. He (27 years old, male) had right hemiplegia with mild central type fascial paralysis and aphonia. After cloth resorption the method used on the right shoulder, elbow, wrist, hip, knee and peroneal muscles 2 times/daily device during 2 months. Outcome monitored by the Medical Research Council Scale (MRC) of 0-5, and brain activity investigated with fMRI before training and after 2 months of the treatment.

Results: The motor power of the shoulder abduction, elbow extension, hip flexion and knee extension increased from 0 to 5 point, and wrist extension, dorsiflexion 0 to 4+, point due to MRC scale.

The fMRI showed BOLD (Blood Oxygen Level Dependence) activity on both motor cortices before treatment. After 2 months fMRI showed increased BOLD activity on the right premotor cortex with right hand movements. Increased activity on the orbitofrontal cortex bilaterally, left hippocampus, right thalamus, both premotor cortices with right foot dorsiflexion. The left side basal ganglia activity was lower than the right thalamic activity.

Conclusion: These results of fMRI show new reorganisation of the brain after the Mentamove® rehabilitation method.