

Abstract

The topic of this bachelor thesis is the influence of non-invasive transcranial direct current stimulation on the results of upper limb functional motor rehabilitation in patients after stroke. The clinical tests evaluating the improvement were Fugl-Meyer Assessment, Nine hole peg test and Hand grip strength test.

In the theoretical part I discussed stroke, its etiopathogenesis, risk factors and rehabilitation after stroke. The theoretical part includes a review of studies investigating the effect of transcranial direct current stimulation not only after stroke.

The methodology of the thesis describes how the patients were selected for the study, how they were divided into groups, individual clinical examinations and therapy. The experimental group underwent transcranial stimulation during therapy, whereas the control group underwent sham stimulation. Stimulation was performed every weekday for 20 minutes for two weeks.

In the practical part there is a table with a summary of the patients, tables with the measured data of each test and the results, which include the described graphs.

The measured data were entered into excel spreadsheets and then processed as bar graphs. In the graph, the limbs are divided into healthy and paretic. The results of the Nine hole peg test and Hand grip strength test, were processed into one graph and the FMA results separately.

The results of the experimental and control groups were also processed separately.

Results showed improvement in Hand grip strength test and FMA in patients in the experimental group. The results of the Nine hole peg test improved in the experimental group did not improve in the experimental group.