

Abstract (in English):

Electroconvulsive therapy (ECT) is a very effective treatment procedure for patients with severe and treatment resistant psychiatric disorders. This Thesis deals with the impact of electroconvulsive therapy on cognitive function, specified as a measurement of cognitive function after electroconvulsive therapy, focusing on the monitoring of cognitive function, eventually their deficits with the passage of time after ECT. At several time points (T1 week after ECT completion; T2: 6-8 weeks after ECT completion) from ECT completion the progression of cognitive performance of patients was repeatedly measured. Respondents were divided according to their diagnosis (mood disorders group and schizophrenia group). The groups were compared with each other. The aim of the Thesis is the observance of the cognitive changes in patients over time after electroconvulsive therapy.

In the final stage 18 subjects were submitted into the study (10 women and 8 men). In terms of diagnosis 39% were diagnosed with the disease in the ICD category F20-F29; 33% were diagnosed with mood disorders (category ICD: F30-F39) and 28% were diagnosed with F06.3 organic affective disorder.

The MCCB (MATRICS Consensus Cognitive Battery) was chosen as a method for data scan, it has very good psychometric properties also suitable for repeated measures.

After six to eight weeks after ECT completion the results shows a significant improvement in five out of six cognitive domains compared to measurements in the week after ECT completion, those domains are: Speed of information processing, Vigilance/attention, Working memory, Verbal learning and Visual learning. The only domain with no statistically significant change is the domain Reasoning and problem solving. In the subsequent comparison of diagnostic groups no statistically significant change was detected in cognitive domains. There was no significant effect of diagnosis on the level of improvement in cognitive performance from time T1 (one week after the ECT completion) to T2 (6-8 weeks after ECT completion). However, it was noted that most cognitive domains scored patients diagnosed with schizophrenia in the circuit at the time T1 and T2 lower than patients in the affective disorder group.