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## COGNITIVE ABILITIES CHANGES AFTER ELECTROCONVULSIVE TREATMENT

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**Introduction:** Electroconvulsive therapy (ECT) is a safe and effective treatment for certain psychiatric disorders. It has long been known that ECT can produce deficits in anterograde, retrograde memory and non-memory-related cognitive functions.

**Aims:** Our research is focused to test selected cognitive abilities of patients undergoing electroconvulsive therapy. Our main concern was focused on changes in memory, attention, psychomotor speed and intellect.

**Methods:** Changes in cognitive abilities were assessed in 30 patients from the 1st Department of Psychiatry, University of P.J.Safarik in Košice before and after ECT treatment session. To assess changes in cognitive abilities we have used Rey-Osterrieth Complex Figure Test (REY), Attention-Concentration Test (ACT), Trail Making Test (TMT) and Intellect Potential Test (TIP).

**Results:** We have observed statistical significant improvement in visual and short-term memory test (preECT REY  $10,92 \pm 6,7$  vs postECT REY  $12,73 \pm 5,06$ ,  $p=0,047$ ), statistical non-significant improvement in psychomotor speed test (preECT TMT  $68,88 \pm 45,13$  vs postECT TMT  $65,15 \pm 49,74$ ,  $p=0,062$ ), statistical significant improvement in attention-concentration test (preECT ACT  $0,74 \pm 0,3$  vs postECT ACT  $0,85 \pm 0,16$ ,  $p=0,021$ ) and statistical non-significant improvement in intellect potential test (preECT TIP  $7,45 \pm 7,37$  vs post ECT TIP  $8,28 \pm 6,45$ ,  $p=0,142$ ).

**Conclusion:** Further research is required to determine changes in cognitive abilities associated with ECT in homogenous patients' population. The validity and limitations are discussed.