THE DYNAMICS OF COGNITIVE IMPAIRMENT IN PATIENTS UNDERGOING THROMBECTOMY FOR THROMBOTIC OCCLUSION

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INTRODUCTION

The relevance of this study is due to the need for a deeper understanding of the cognitive consequences of ischemic stroke after endovascular intervention, which is key to optimizing rehabilitation strategies and improving the overall prognosis.

OBJECTIVES

To determine the dynamics of cognitive impairment in patients undergoing thrombectomy for thrombotic occlusion.

METHODS

- Prospective study conducted during 2023–2024
- 96 patients who underwent thrombectomy for thrombotic occlusion
- Centre for X-ray Endovascular Neurosurgery, Kyiv City Clinical Hospital No 1 (Kyiv, Ukraine)
- Assessment on days 7–8 and 30–35 after surgical intervention
- Anamnestic, clinical-psychopathological and psychodiagnostic studies

Psychometric tools

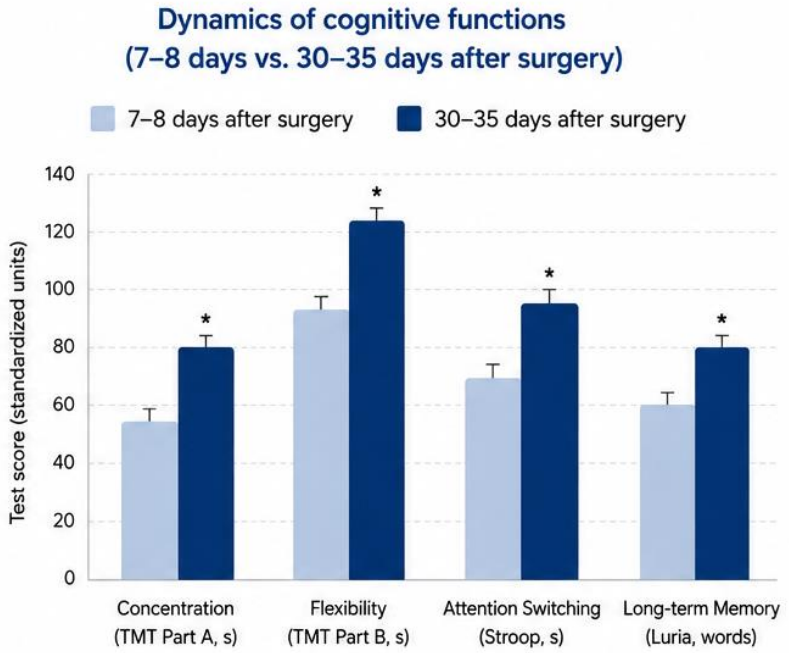
- Trail Making Test (TMT, R. M. Reitan and D. Wolfson, 1993)
- Stroop Color Word Interference Test (J.R. Stroop, 1935)
- Luria's Ten Word Memory Test (A.R. Luria, 1969)

RESULTS

The dynamics of cognitive impairment in patients undergoing thrombectomy for thrombotic occlusion was determined.

Thus, positive dynamics in the recovery of cognitive functions in patients during the first 30–35 days after surgery was revealed: a statistically significant improvement in the cognitive status in the field of concentration, flexibility and attention switching, as well as the long-term memory component suggests the activation of compensatory neuroplastic processes in the early post-stroke period.

It is also worth noting that despite the changes detected, patients retained a tendency to plateau in their memorization, when the number of words they could reproduce ceased to increase significantly after 2–3 readings, which was clinically manifested in a tendency to rapid exhaustion of mental and cognitive processes.



** p < 0.05 vs. 7–8 days after surgery*

CONCLUSION

The detected improvement of the studied cognitive functions during the first month after surgery gives grounds for optimistic prognoses, but further research is needed to clarify the mechanisms of recovery, determine the mutual influence of affective disorders and formulate optimal approaches to the comprehensive neuropsychological rehabilitation of such patients, which will meet the principles of personalized medicine.

Recovery of cognitive functions

Need for further research

Affective disorders & interactions

Personalized rehabilitation