

## COGNITIVE IMPAIRMENT IN POST-STROKE PARKINSONISM

Bijanova A.B., Majidova E.N., Sharipov F.R.

**Relevance.** Post-stroke parkinsonism (PSP) develops as a result of vascular damage to subcortical structures (basal ganglia, thalamus, frontal-subcortical connections) and is often accompanied by cognitive impairment, which worsens the prognosis and quality of life of patients. Unlike Parkinson's disease, the cognitive profile in PSP is predominantly vascular in nature.

**Research objective.** To assess the structure and severity of cognitive impairment in patients with post- stroke parkinsonism.

**Materials and methods.** One hundred patients (mean age  $66.4 \pm 7.8$  years) with a history of clinically and neuroimaging-confirmed ischemic stroke and subsequent development of Parkinson's syndrome were examined.

The following were used:

- MMSE
- MoCA
- FAB
- Depression scale (HADS)
- Brain MRI

Statistical analysis was performed using descriptive statistics and correlation analysis.

### Results

- Cognitive impairment was detected in 78% of patients.
- Mild cognitive impairment was found in 46% of patients, and dementia in 32%.
- The average MoCA score was  $21.3 \pm 3.9$ .
- The most pronounced impairments were observed in the following domains:
  - executive functions (72%)
  - attention (65%)
  - speed of mental processes (68%)
  - visuospatial functions (41%)

- Memory was moderately impaired, mainly in the form of difficulty in reproduction with relative preservation of recognition, which corresponds to the subcortical-frontal type of cognitive deficit.

- The severity of cognitive impairment correlated with the volume of the lesion in the basal ganglia and the presence of leukoaraiosis ( $r = 0.62$ ;  $p < 0.01$ ).

**Discussion.**

The cognitive profile in post-stroke parkinsonism is predominantly dysregulatory in nature, with a predominance of fronto-subcortical dysfunction. Unlike Alzheimer's disease, mnemonic disorders are secondary and less pronounced in the early stages.

**Conclusions.**

1. Cognitive impairment is a common component of post-stroke parkinsonism (78%).
2. The leading type of deficit is executive dysfunction.
3. The degree of cognitive decline is associated with the severity of vascular brain damage.
4. Early neuropsychological diagnosis allows for the optimization of rehabilitation measures.