

**Possibilities of Lowering Dementia Level During Transcatheter Treatment of Patients with Atherosclerotic Cerebral Lesions.**

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**Introduction:** The research purpose is the study of brain transcatheter laser revascularization efficacy in the treatment of cerebral atherosclerosis accompanied by vascular dementia.

**Methods:** The investigation included 665 patients, 478 (71.87%) men, 187 (28.13%) women, aged 40-81 (average age 75) with various types of atherosclerotic lesions of brain vessels accompanied by vascular dementia. All the patients underwent CT, MRI, SG, REG, MUGA.

639 (96.09%) patients underwent transcatheter treatment revealing the following: 86 patients had macrofocal strokes, 74 - medium focal strokes, 29 - single microfocal strokes, 36 - multiple microfocal strokes, 273 patients - atherosclerotic lesions without strokes, 98 - arteriosclerosis, 37 - atherosclerotic parkinsonism, 6 - Binswanger's disease. Of these, CDR-1 - 352 (55.09%), CDR-2 - 184 (28.79%), CDR-3 - 103 (16.12%) patients.

For revascularization of main intracranial arteries high-energy laser systems were used; for revascularization of distal intracranial branches low-energy laser systems were used.

**Results:** Good immediate angiographic result - restoration of vascular lumen and patency and collateral revascularization - was achieved in 628 (98.27%) cases. Good clinical result (Index Bartels-IB-100): in group CDR-1 - 282 (80.11%), CDR-2 - 81 (44.02%), CDR-3 - 9 (8.73%) cases. Satisfactory clinical result (IB-70-80): in group CDR-1 - 53 (15.06%), CDR-2 - 62 (33.70%), CDR-3 - 31 (30.09%) cases. Relatively satisfactory clinical result (IB-50-60): CDR-1 - 17 (4.83%), CDR-2 - 41 (22.28%), CDR-3 - 63 (61.16%) cases.

**Conclusions:** Transcatheter laser revascularization of cerebral blood vessels allows to significantly reduce the level of dementia in patients with cerebral atherosclerosis.