conferenceseries.com

4th International Conference on
Vascular Dementia
June 30-July 02, 2016 Valencia, Spain

Transcatheter treatment of vascular dementia with Binswanger's disease

Ivan V Maksimovich
Clinic of Cardiovascular Diseases named after Most Holy John Tobolsky Moscow, Russia

Background: Due to increasing lifespan, the number of patients with Binswanger's disease is growing. This research is dedicated to the effectiveness of brain transcatheter laser revascularization in the treatment of vascular dementia and Binswanger's disease.

Materials & Methods: 14 patients, 9 male (64.29%) and 5 female (35.71%), aged 58-81 (average age 77) with Binswanger's disease were examined undergoing computed tomography of the brain (CT), magnetic resonance imaging (MRI), scintigraphy of the brain (SG), rheoencephalography (REG), cerebral multi-gated angiography (MUGA), laboratory tests, and assessment of the severity of dementia (CDR), cognitive disorders and everyday life disorders (MMSE). The examination revealed: general invalutive changes of the cerebral cortex were detected in all 14 cases; intracranial atherosclerotic lesion type - all cases; multiple arteriovenous shunts of the white matter the brain - all 14 cases; manifestations of leucoaraiosis - all cases; general invalutive changes of the cerebral cortex – all 14 cases; single postischemic microcysts (3-4 mm) of the white matter of the brain - 1 case; multiple microcysts including the merged ones - 13 cases; signs of unocclusive hydrocephalus - all 14 cases; diffuse atherosclerotic lesion of cerebral arteries - 12 cases; stenosis of large intracranial arterial branches - all 14 cases; deviation of intracranial branches - all 14 cases; multiple stenotic and occlusive lesions of the terminal parts of intracranial branches - all 14 cases; depletion of the capillary bed in the white matter of the brain - all 14 cases; development of multiple large and small arteriovenous shunts in the white matter of the brain caused by capillary blood flow disorders, which led to early venous dumping - all 14 cases; dementia CDR-1 - 6 patients, CDR-2 - 8 patients. All the patients underwent transcatheter laser revascularization. Low-energy laser systems were used for revascularization of distal intracerebral branches. Postoperatively, the patients underwent desagrigatory, anticoagulatory and vasodilator therapy following advanced interventional radiology schemes. Clinical evaluation of postoperative results was carried out using the CDR.

Results: Good immediate angiographic outcome manifested in the restoration of lumen and patency of the affected vessels as well as in collateral revascularization was obtained in all 14 cases. Clinical outcome: Good clinical outcome (complete recovery of mental and motor functions) was obtained in 6 (42.86%) patients and satisfactory clinical outcome (incomplete recovery of mental and motor functions) was obtained in 8 (57.14%) patients. No negative effect was observed after the interventions.

Conclusions: The method of brain transcatheter laser revascularization is an effective one in the treatment of atherosclerotic lesions of brain's white matter accompanied by the development of vascular dementia and Binswanger's disease. Restoration of intracerebral blood flow can significantly reduce the level of mental, cognitive, motor disorders and return patients to their active daily life.

Biography

Ivan V Maksimovich, MD, is an ISTAART member, and the Head Physician of Clinic of Cardiovascular Diseases named after Most Holy John Tobolsky (Moscow, Russia) since 1993. One of the major problems the clinic deals with is the diagnosis and treatment of various brain lesions including Alzheimer's disease. For a long time he has fully concerned himself with the diagnosis and treatment of Alzheimer's disease. Over the past 15 years he has published over 60 scientific works on this subject.

carvasc@yandex.ru

Notes: