

JOINT EVENT

11th International Conference on **Vascular Dementia** & **27th Euro-Global Neurologists Meeting**

July 23-25, 2018 | Moscow, Russia

Vertebrobasilar insufficiency caused by Arnold-Chiari syndrome

Shilov G N¹, Nikitina L I¹ and Schurevich M A²¹Republican Clinic Medical Center, Belarus²Republican Scientific and Practical Center of Neurology and Neurosurgery, Belarus

Aim: The aim of the investigation was to study the dependence of neurological manifestations in Ibn on the diameter, stroke and deformations of vertebral and main arteries, as well as various ultrasound characteristics of blood flow in these arteries.

Materials & Methods: During the period 2016-2018, 23 patients with vertebrobasilar insufficiency (VBI) were examined in which positional dizziness prevailed among neurological manifestations. According to the MRI confirmed the diagnosis of Arnold-Chiari syndrome (sACh-1) without any other malformations of central nervous system, vascular pathology of the central nervous system (atherosclerosis of the arteries, etc.) and degenerative-dystrophic diseases of spine (osteocondrosis, spondylosis, and osteoarthritis uncovertebral) that can cause similar neurologic symptoms. In five patients from the given sample anomalies of craniospinal junction were also diagnosed (two patients-platybasia and three patients - basilar impression).

Results: Of the 23 patients, 21 were girls and women aged 15 to 35 years with the main complaint of positional dizziness and lack of cochlear disorders. The degree of omission of the tonsils was determined by the line of Mak-Ray (usually omission of the tonsils of the cerebellum ranged from 4 mm to 8 mm). All patients were observed decrease in the size of the basilar cisterns, close to the main diligence and vertebral arteries to Blumenbach the slope. In nine patients, there was marked deviation of the main and/or vertebral arteries in one direction or another from the middle line, with or without the presence of one of the vertebral arteries. In 17 patients, a marked decrease in the diameter of the intracranial section of one or both vertebral arteries was determined, in the absence of a decrease in the diameter of these arteries in the cervical section. To measure the rate of blood flow in the arteries under study, as well as to measure resistance in the microcirculatory bed, we used ultrasound Doppler study of the pulsation index (PI), which is the ratio between the rate of blood flow during systolic pulse and diastolic pulse, which allows a more objective assessment of hemodynamics in VBB. It was shown that in all examined patients (in contrast to the control group consisting of 15 healthy people) PI was significantly lower, indicating an increase in the microcirculatory bed of the corresponding arterial pool.

Conclusion: sACh-1 is a fairly common cause of the VBI with the prevalence of vertigo without cochlear disorders among patients with VBI, caused by sACh, young women prevailed, which indicates the age-related gender component of this pathology; MRI and MR- angiography is a key method in the diagnosis of VBI in sACh; For a more objective assessment of the level of VBI and its associated neurological prognosis, it is desirable to supplement MRI study ultrasound dopplerographic method.

Biography

Shilov G N has completed his PhD at Byelorussian State Medical University. He worked as a Senior Scientific Worker in the Laboratory of the Biochemistry of Neurohormones and Neurosurgery at Byelorussian State Medical University and then as leading Scientific Worker at Central Scientific-Investigating Laboratory of Byelorussian Medical Postgraduate Academia and Neurology Practitioner and also as MRY Diagnostician. Then he worked as a Deputy Director at the Center of Medical Information EOCEN and continues his scientific work in close cooperation with Laboratory of Free-Radical Process Chemistry of the Research Institute of Physical Chemical Problems at the Belarusian State University. Now, he is working as MRY Diagnostician at the Republican Clinic Medical Center of the Presidential Administration. He has published more than 40 papers in reputed journals.

George_Shilau@mail.ru