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## **Hemicrania: Is it brain's serotonergic system misbalance or its hereditary asymmetric of the cranial venous sinuses and magistral venous of brain and neck?**

**Aim:** The aim of the investigation was to study the dependence of neurological manifestations different headache's types: Migraine, cluster headache, chronic paroxysmal hemicrania and tension headache (as control pathology) from the asymmetric of the cranial venous sinuses and magistral brain's and neck's venous.

**Material & Method:** During the period 2016-2019, we observed 48 patients with different types of headache in which hemicranias headache prevailed among neurological manifestations. According to the MRI were confirmed expressed asymmetry of the cranial venous sinuses (transverse and sigmoid sinuses) and magistral venous brain's and neck's (first of all internal jugular vein) without any other vascular malformations nervous system, and also vascular pathology of the CNS (like atherosclerosis of the arteries, etc.) and other diseases of CNS, that can cause similar neurologic symptoms. In 28 patients (this group include only women) from the given class of headaches were diagnosed classical migraine, in 6 patients - cluster headache (this group consist of only men), and in 14 patients - chronic paroxysmal hemicranias (from them were 8 women and 6 men). In a counterbalance hemicranial headache, as control group, we used tension headache, which was diagnosed in 14 patients (from them 7 were men and 7 were women).

**Results:** All of the 28 patients with migraine, were girls and women aged 18 to 40 years with the main complaint of one side headache with accent in front-temporal region (from one side or another); in 17 from them were revealed expressed asymmetria of transverse and sigmoid sinuses and internal jugular vein, 5 - middle, 3 - little and 5 - without any kind assymetria. All of the patients with cluster headache were only men aged 35-40 years with night periorbital hemicranial headache, where in 4 patients was diagnosed asymmetria of transverse and sigmoid sinuses and internal jugular vein and other 2 men have normal. In 8 women with chronic paroxysmal hemicranias in 4 cases was reveled moderate asymmetria of transverse and sigmoid sinuses and internal jugular vein, in 2 cases – little and in other 2 was diagnosed normal. In 6 men with chronic paroxysmal hemicranias in 4 cases was reveled moderate asymmetria of transverse and sigmoid sinuses and internal jugular vein and in other 2 was diagnosed normal. In control group with tension headache we were diagnosed symmetrical quite expression narrow diameter (5 men and 3 women) of transverse and sigmoid sinuses and internal jugular vein and in other patients was normal.

**Conclusion:** In the manifestation of the hemicranial brain's pain syndrome significant role plays failure of the venous outflow of the brain (especially in migraine). MRI and MR- angiography was able become a key method in the differential diagnosis and follow control of treatment of hemicranial headache.

### **Biography**

Shilov G N is committed to highest standard of excellence at Republican Clinic Medical Center of the Presidential Administration in Belarus. His international experience includes various programs, contributions to reputed journals and participation in different international conferences in diverse fields of study.

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