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EARLY DIAGNOSIS AND TREATMENT OF VESTIBULOPATHY

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Early diagnosis and treatment of chronic cerebral ischemia (CCI) is one of the pressing problems of modern neurology. One of the manifestations of acute cerebrovascular accident may be vestibular dizziness.

The prognosis and management tactics for patients with vestibular vertigo depend entirely on its cause. In the case of acute cerebrovascular accident, even with rapid regression of neurological disorders, there is a high probability of recurrent stroke, myocardial infarction and other cardiovascular diseases.

The issues of the prevalence of vestibular vertigo among patients hospitalized in the neurological department with a diagnosis of chronic cerebral ischemia, vertebrobasilar insufficiency, the differential diagnosis of vestibular vertigo, its prognosis and treatment seem to be not fully understood, which determines the relevance of research in this direction.

Purpose of the study: to determine the prevalence, improve the differential diagnosis, prognosis and modern aspects of the diagnosis of vertebrobasilar insufficiency.

Materials and research methods:

There is no doubt that acute vestibular vertigo occurs only when the stroke is localized in the vertebrobasilar system. In our study, there were 128 patients with stroke in the vertebrobasilar system. In this group, vestibular dizziness was observed in 21 patients, so its frequency (16.4%) was significantly higher than in the whole group of patients with stroke.

Among 21 patients with stroke in the vertebrobasilar system and having vestibular vertigo, there were 10 men and 11 women aged from 68 to 91 years (average age - 74.6 ± 5.2 years).

The examination of 93 patients with acute vestibular vertigo included a study of somatic, neurological and otoneurological status. All patients underwent a clinical blood test, a general urinalysis, a biochemical blood test, a coagulogram, electrocardiography, a chest x-ray, duplex ultrasound scanning of the main arteries of the head and neck, and a fundus examination.

Patients with acute cerebrovascular accident and some patients with damage to the peripheral vestibular apparatus, in whom, according to clinical data, the possibility of stroke could not be excluded, underwent computed or magnetic resonance imaging of the head (CT or MRI). Duplex scanning of the carotid, vertebral and subclavian arteries was also performed. In patients with suspected benign paroxysmal positional vertigo, the Dix-Hallpike test was performed.

Results of the study: Analysis of the clinical symptoms in these patients showed that the majority (19 patients) of them had neurological symptoms indicating damage to the brain stem and (or) cerebellum. Cerebellar ataxia was found in 73.9% of patients, central paresis of the limbs - in 84.8% of patients, oculomotor disorders - in 41.3% of patients, bulbar syndrome - in 34.8% of patients, conduction sensitivity disorders - in 45.6% patient (table)

Table

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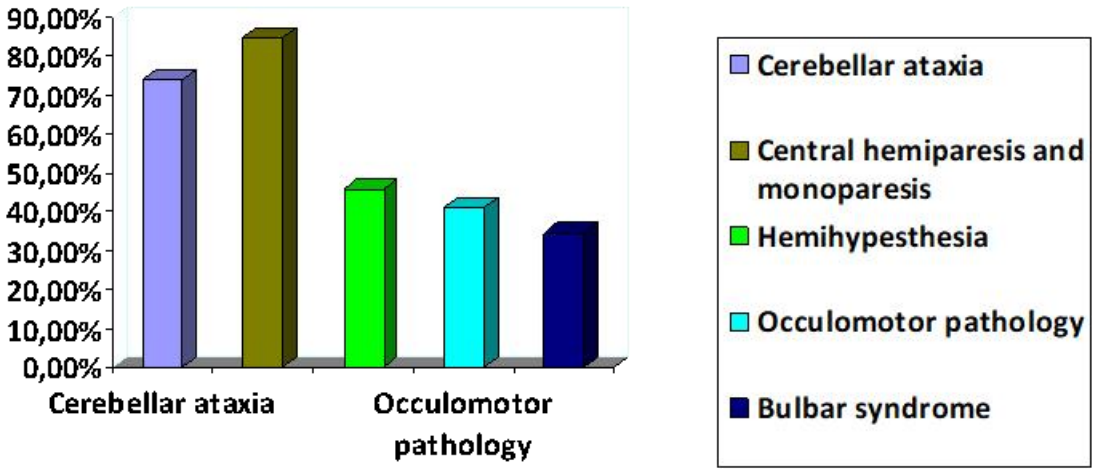
Main neurological syndromes in 21 patients with acute cerebrovascular accident manifested by vestibular vertigo.

Neurogical syndrome	Amount of Patients	%
Cerebellar ataxia	16	73,9
Central hemiparesis and monoparesis	18	84,8
Hemihypesthesia	10	45,6
Occulomotor pathology	9	41,3
Bulbar syndrome	7	34,8
Isolated vestibular vertigo	1	4,3
Total	21	100

However, two patients with ischemic stroke did not have symptoms of damage to the brain stem and (or) cerebellum; they only had acute vestibular vertigo and horizontal nystagmus (isolated vestibular vertigo). In these patients, according to clinical data, peripheral vestibulopathy was initially assumed, but later in one patient sensory disturbances in the facial area developed, and in another patient, significant static ataxia remained with a decrease in dizziness. MRI of the head revealed the presence of ischemic infarction in the first case in the medulla oblongata and cerebellum, in the second case - in the cerebellum.



In general, isolated vestibular dizziness was observed in only 0.7% of all patients with stroke in the vertebrobasilar system. Vestibular vertigo occurred in 2 patients with stroke in the vertebrobasilar system and in patients with peripheral vestibulopathy; the incidence of stroke with isolated vestibular vertigo was 1.2%. The data obtained are consistent with the results of other authors (Brandt T., 2000, 2002, Caplan L.R., 1998, 2004), who note that isolated vestibular vertigo is a relatively rare symptom of stroke. If a patient has vestibular vertigo that persists or recurs for more than three weeks, but there are no symptoms of damage to the brain stem and

cerebellum, then there is every reason to exclude cerebrovascular disease as the cause of vestibular vertigo (Caplan L.R., 1998, 2014).

Stroke patients who have experienced vestibular vertigo have not previously had similar attacks of vertigo. The majority (18 out of 21) of patients had horizontal or horizontal-rotatory nystagmus; two patients had vertical nystagmus. In more than half (10 out of 21) of the patients, the intensity of dizziness was moderate, and nausea and vomiting did not occur. Dizziness usually subsided after two or three days from the onset of illness, but nystagmus persisted even after the vertigo disappeared. Hearing loss and/or tinnitus was observed only in a portion (17%) of patients.

During their stay in the hospital, out of 21 stroke patients who had vestibular vertigo, 7 patients died. (1 of 3 patients with hemorrhage in the cerebellum or pons, 5 of 18 patients with ischemic stroke). The majority of surviving patients experienced significant regression of neurological symptoms, and dizziness did not significantly bother them at the time of discharge from the hospital.

Thus, in patients with acute cerebrovascular accident and vestibular vertigo, in most cases other neurological disorders characteristic of damage to the brain stem or cerebellum are observed, which makes it possible to establish the central localization of damage to the vestibular pathways. Very rarely, isolated vestibular dizziness is observed in patients with stroke. It is advisable to hospitalize all patients who have developed vestibular vertigo for the first time in their lives in the neurological department, because only dynamic observation and the necessary instrumental studies (MRI of the head) can exclude or establish the presence of a stroke.

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