Results of the fundus state study in elderly and senile patients suffering from dyscirculatory encephalopathy, depending on the region of residence and ethnicity

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In the article the results of the fundus study in patients with dyscirculatory encephalopathy depending on the region of residence and ethnic group by direct ophthalmoscopy are given. In this case they revealed more expressed changes in the fundus state in the non-indigenous population and in patients living in ecologically unfavorable region.

Keywords; fundus, elderly and senile age, encephalopathy.

It is known that blood flow in the blood vessels of the retina has an anatomical, physiological, embryological relationship to the cerebral circulation. [1] There are reports of the functional changes of blood circulation in the vessels of the retina in patients with lacunar stroke. [2] Data from four large epidemiological population studies have shown an independent correlation between symptoms of hypertensive retinopathy identified by fundus photography, and the risk of stroke. According to the observations T.Wong et al. [5], the symptoms of retinopathy was associated with reduced cognitive function during standard neurophysiological tests, and with the defeat of the white matter of the brain and cerebral atrophy, identified on the basis of magnetic resonance imaging. Some studies have shown consistently weaker and less consistent relationship between the other changes of the retina (eg, generalized and localized narrowing of the arteries and arteriovenous cross) as cognitive dysfunction and symptoms of brain lesions on magnetic resonance imaging [3,4]. These observations support the concept that the study of the fundus is an important measure for determining risk stratification of cerebrovascular disease (CVD), and all patients with the disease, so need regular monitoring ophthalmologist with research retina.

The aim of this work was to study the state of the fundus in elderly and senile patients with chronic cerebral ischemia (CCI), depending on the region of residence.

Material and methods

206 patients were examined with HIM I and II stages. All patients during the observation period were admitted to the neurological department senior center (GC) of Belarus № 3. The criteria for the diagnosis was confirmed clinically and instrumentally carotid arteries with appropriate clinical HIM. With the goal of work, age criterion, region patients were divided into two groups: the principal, including 2 groups, and control, which in turn are based on the stage of HIM were divided into subgroups A, including patients with CHEM-I and subgroup B, consisting of patients with CHEM-II. In this first study group included indigenous people of the Arctic Zone of Yakutia, characterized preserved the traditional way of life and clean environment (n = 38), while the second major group consists of urbanized residents of Yakutsk indigenous - Yakuts (n = 44). In each of the 2 selected groups were present between the ages of 60 to 85 years, the group also consisted of representatives of 4 regional categories of patients with the same pathology, but at the age of 35 to 55 years (n = 35). Thus, we have observed how the principles of regional and age division of the studied groups of patients that met the objectives of the study.

All the patients studied state fundus direct ophthalmoscopy, which indirectly reflects the state of cerebral hemodynamics. In this case, the difference in the estimated increase in the caliber of the arterial and venous vessels (normal ratio is 2:3), Salus symptom-Gunn (abnormal veins cross

indentation at the intersection with the deep tissues of the arteries of the retina), the narrowing of the retinal arteries, thickening of the arterial wall, symptom of "copper wire" with moderate symptom of "silver wire" with its sharp intensity.

According to the distribution of patients by age, as can be seen from Table 1, in the ratio of men and women in both groups dominated by women, and this can be explained by higher average life expectancy of women [Krivoshapkin V.G.2001]. In the comparison group met HIM equally common in both sexes. Distribution of patients by sex Table №1.

By age (Table №2) in both groups in the I-th main group was dominated by people aged 71-75 years, in the II-nd group had more patients aged 60-65 years.

Results. The study conducted by the state of the fundus in patients with ED-I,-II and DE when comparing the main groups and comparison groups are shown in Table № 3. Comparative results of the study states fundus

Group observations options pathology in the fundus narrowing of the arteries and veins of the retina or retinal angiopathy angiosclerosis Macular degeneration

As can be seen from the table, revealed differences in the nature of changes in the fundus. In the study of the state of the fundus patients CHEM-I, the changes were reflected in the narrowing of arteries, veins, angiosclerosis, angiopathy and macular degeneration. The biggest share was suffering from narrowing of the arteries, veins and angiopathy of the retina, with the lowest frequency encountered angiosclerosis and retinal degeneration. When CHEM-II, none of the patients, even the "young" age, there were no rules, the changes were more severe than in CHEM-I.

At that if DE-I dominated those with retinal angiopathy, when DE-II was the greatest proportion of patients with retinal dystrophy and angiosclerosis. Violation of visual function is expressed by the complaints of blurred vision, foresight, and floating spots before the eyes.

It should be noted that hypertensive angiopathy, angiosclerosis and degeneration of the retina in HIM and HIM-I-II was significantly more prevalent in group II members, and less frequent in the North.

Thus, on the basis of the results it can be stated that the DE-II changes in the fundus were more severe than in the DE-I, and determined in all patients. At the same time, the representatives of the urban population of Yakutia vascular pathology, reflects the state of the fundus, has a more pronounced and "running" in nature, in similar stages of cerebrovascular disease than that of the rural population in remote areas of the country. This can also be traced as possible traces of urbanization. Our work proves once again that the vascular changes in the fundus are a symptom of the target lesion in atherosclerosis and hypertension.

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