

Alyukov K. A.

**DYNAMICS OF THE ATROGENICITY INDEX IN PATIENTS
WITH CEREBROVASCULAR DISEASES**

*Scientific supervisors candidate of medical science, associate professor Solovieva N. V.,
candidate of philosophical science, associate professor Zenkova T. L.*

*Department of Chemistry and Biochemistry, Department of Foreign Languages
Chita State Medical Academy, Chita*

Relevance. The mortality from circulatory system diseases takes the first place in the Russian Federation. Atherosclerotic encephalopathies are represented by a complex of ischemic brain changes due to vascular atherosclerosis leading to a number of cerebrovascular diseases such as hemorrhagic and ischemic strokes. The leading cause of atherosclerosis is dyslipidemia.

Objective: to reveal the tendency of developing repeated cerebrovascular diseases in patients of various age groups in Chita and Ulan-Ude.

Materials and methods. Lipid parameters of 587 patients with cerebrovascular diseases including total cholesterol, high density lipoprotein cholesterol, low density lipoprotein cholesterol and atherogenicity index based on the data of the Republican Hospital named after N.A. Semashko in Ulan-Ude and the State Regional Clinical Hospital in Chita were studied. The total number of patients in both hospitals was divided into 4 age groups: the 1st group (2.4%) of patients was from 31 to 40 years old, the 2nd group (11.9%) of patients was from 41 to 50 years old, the 3rd group (19, 4%) of patients was from 51-60 years old, the 4th group (25.4%) of patients was from 61 to 70 years old and the 5th group (40.9%) of patients was over 70 years old. Statistical data processing was carried out using the Microsoft Excel program. Quantitative indicators were presented as the median (50 percentile). The significance of differences (p) between the indicators was determined by the Student t-test, reliable values were considered at $p < 0.05$.

Results. In the 1st, 2nd and 3rd age groups of Chita the level of total cholesterol was higher by 5.8%, in the remaining groups normocholesterolemia was observed - 4.6 mmol / l ($p < 0.4$). In all patients from Ulan-Ude the total cholesterol values were within the reference range except for the 3rd group where the value was exceeded by 0.4%. In all groups of Chita except for the 4th group hypoalcholesterolemia less than 0.93 mmol / L ($p < 0.01$) was observed. The same situation was revealed in patients of Ulan-Ude except for the group of patients aged from 51-60 years old (1.02 mmol / L ($p < 0.01$)). Hyperbetacholesterolemia was detected in all patients, therefore the level of low density lipoprotein cholesterol in patients from Chita was exceeded by 44% and in patients of Ulan-Ude - 43.7%. The atherogenicity index of all patients in both hospitals was higher than the permissible value: in Chita - 71.2%, in Ulan-Ude - 58.6%.

Conclusion. As a result of comparative analysis of patients' lipid profiles with cerebrovascular diseases in hospitals of Chita and Ulan-Ude it was found out that the level of total cholesterol in most patients was in the reference values or slightly exceeded. An increase of the atherogenicity index, hyperbetacholesterolemia in combination with hypoalcholesterolemia in all patients were revealed. A significant increase of the atherogenicity index was observed in patients aged 31 to 40 years in both hospitals, so the risk of developing repeated cerebrovascular diseases in this age group was high. Thus there is a need for regular diagnostic measures and mandatory preventive procedures.