ETERMINATION OF THE INCREASED RISKS OF CEREBRAL STROKE AMONG THE ADULT POPULATION UNDER THE INFLUENCE OF MEDICAL AND BIOLOGICAL CONTROLLABLE RISK FACTORS

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Background. According to WHO experts, significant demographic fluctuations, increasing urbanization of society and the prevalence of risk factors will further cause the so-called "explosion" in the global incidence of cerebral stroke (CS). Thus, according to forecasts, by 2030, the number of primary CS and deaths due to them will increase to 23 and 7.8 million, respectively, if cardinal mechanisms are not used to combat these diseases at the population level. Moreover, every four out of five new cases will be registered in low- and middle-income countries.

The purpose of the study is to determine the possible chances of developing CS among the adult population of medical and biological controllable risk factors using multiple logistic regression analysis.

Materials and methods. The study was conducted at the Clinical Sanatorium Roshcha, a subsidiary of Ukrprofozdorovnytsia, a private joint-stock company, and the Clinical Sanatorium Berezivski Mineral Water Resort, a subsidiary of Ukrprofozdorovnytsia, a private joint-stock company. 500 people aged 19-91 were examined, among whom 300 respondents of the main group with an anamnesis of CS and 200 people of the control group (practically healthy individuals randomized by age and gender) were identified. The study and analysis of the research objects were conducted by copying the data from the medical records (control card of dispensary observation; medical record of an inpatient, etc.), questionnaires, and surveys.

Results. According to the results of multiple logistic regression analysis, among the biomedical and biological controllable risk factors, significant associations with the risk of developing CS were identified both in univariate and multivariate analysis of tobacco smoking (respectively, odds ratio (OR) = 5, 239 [95.0 % confidence intervals (CI) 3.496-7.851], $p < 0.001$) and alcohol abuse (OR = 1.698 [95.0 % CI 1.182-2.439], $p = 0.004$ and OR = 1.559 [95.0 % CI 1.053-2.309], $p = 0.027$) and only for the multivariate - vape abuse (OR = 3.394 [95.0 % CI 1.256-9.172], $p = 0.016$). There were increased odds of developing CS with a long duration of harmful habits in both univariate and multivariate analyses: up to 5 years - respectively OR = 4.056 [95.0 % CI 1.546-10.639], $p = 0.004$ and OR = 5.195 [95.0 % CI 1.781-15.153], $p = 0.003$; from 5 to 10 years - respectively OR = 11.928 [95.0 % CI 3.508-40.564], $p < 0.001$ and OR = 27.198 [95.0 % CI 7.144-103.547], $p < 0.001$ and from 10 to 20 years - respectively OR = 9.304 [95.0 % CI 5, 020-17.242], $p < 0.001$ and OR = 22.015 [95.0 % CI 10.444-46.406], $p < 0.001$ and more than 20 years - respectively OR = 3.001 [95.0 % CI 1.826-4.933], $p < 0.001$ and OR = 8.345 [95.0 % CI 4.269-16.311], $p < 0.001$. According to the univariate analysis, the odds of developing CS

were significantly increased with alcohol consumption on weekends (OR = 2.684 [95.0 % CI 1.610-4, 474], p < 0.001) and for both variants - when drinking alcohol at a time at the level of 300-500 ml (respectively OR = 2.275 [95.0 % CI 1.417-3.653], p = 0.001 and OR = 2.293 [95.0 % CI 1.285-4.094], p = 0.005). The odds of CS were increased with moderate overweight (OR = 0.476 [95.0 % CI 0.225-1.007], p = 0.052) in the univariate analysis.

The increased odds of developing CS were also influenced by other dietary errors. Thus, according to both univariate and multivariate analyses, a significant effect on the development of CS was determined in moderate overeating - respectively OR = 1.616 [95.0 % CI 1.099-2.381], p = 0.015 and OR = 1.688 [95.0 % CI 1.026-2.777], p = 0.039.

In addition, according to the univariate analysis, the development of CS was significantly influenced by non-compliance with the diet (OR = 1.737 [95.0 % CI 1.202-2.511], p = 0.003). In addition, both analyses revealed significantly (p < 0.001) increased odds of developing CS with a mixed diet, which included both fatty and salty and spicy foods (respectively, OR = 2.192 [95.0 % CI 1.466-3.278] and OR = 2.983 [95.0 % CI 1.789-4.975]) and eating before bedtime (only in the univariate analysis - OR = 1.717 [95.0 % CI 1.164-2.531], p = 0.006). According to the univariate analysis, the odds of developing CS were significantly reduced by eating vegetables infrequently (several times a week - OR = 0.566 [95.0 % CI 0.357-0.898], p = 0.016 and less often - OR = 0.560 [95.0 % CI 0.329-0.954], p = 0.033).

As expected, the multivariate analysis revealed reduced odds of developing CS with coffee consumption: OR = 0.448 [95.0 % CI 0.218-0.922], p = 0.029; OR = 0.504 [95.0 % CI 0.243-1.06], p = 0.066; and OR = 0.272 [95.0 % CI 0.123-0.599], p = 0.001, for daily coffee consumption.

Conclusions. Thus, the probable influence on the development of CS was determined by smoking, abuse of alcoholic beverages and vapes, a significant duration of bad habits, alcohol consumption on weekends and at the level of 300-500 ml at a time, moderate overweight, errors in the diet, moderate overeating, non-compliance with the diet, consumption of fatty, salty and spicy food, rare consumption of vegetables, consumption of coffee.