



New Day in Medicine
Новый День в Медицине

NDM



TIBBIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal



AVICENNA-MED.UZ



ISSN 2181-712X.
EiSSN 2181-2187

6 (80) 2025

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**ТИББИЁТДА ЯНГИ КУН
НОВЫЙ ДЕНЬ В МЕДИЦИНЕ
NEW DAY IN MEDICINE**

*Илмий-рефератив, маънавий-маърифий журнал
Научно-реферативный,
духовно-просветительский журнал*

УЧРЕДИТЕЛИ:

**БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ
МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»**

Национальный медицинский
исследовательский центр хирургии имени
А.В. Вишневского является генеральным
научно-практическим
консультантом редакции

Журнал был включен в список журнальных
изданий, рецензируемых Высшей
Аттестационной Комиссией
Республики Узбекистан
(Протокол № 201/03 от 30.12.2013 г.)

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6 (80)

2025

июнь

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Тел: +99890 8061882

УДК 616.8-005:314.44

COMPARATIVE ANALYSIS OF CEREBROVASCULAR DISEASE INCIDENCE IN BASHKORTOSTAN REGIONS DEPENDING ON ANTHROPOGENIC (TECHNOGENIC) LOAD

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✓ Resume

The article presents the data of studying the prevalence of cerebral vascular diseases, including acute cerebrovascular disorders (stroke) in Uchalinsky and Karaidelsky districts of the Republic of Bashkortostan. The indicators analysed for 7 years show significant differences in vascular morbidity rates and a more unfavourable situation in the number of cerebrovascular diseases in Uchalinsky district. The obtained data necessitate the development of measures to assess the scope of the targeted programme of primary

and secondary prevention of cerebral vascular diseases in the districts with subsequent improvement of its effectiveness, organization of early diagnosis, hospitalization, treatment and medical rehabilitation for cerebral vascular diseases

Key words: cerebrovascular disease, vascular brain diseases, cerebrovascular accidents, anthropogenic (technogenic) load

АНАЛИЗ РАСПРОСТРАНЕННОСТИ СОСУДИСТЫХ ЗАБОЛЕВАНИЙ ГОЛОВНОГО МОЗГА В РАЙОНАХ РЕСПУБЛИКИ БАШКОРТОСТАН С РАЗЛИЧНОЙ ТЕХНОГЕННОЙ НАГРУЗКОЙ

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✓ Резюме

В статье представлены данные изучения распространенности сосудистых заболеваний головного мозга, в том числе и острых нарушений мозгового кровообращения (инсульта) в Учалинском и Караидельском районах Республики Башкортостан. Показатели, проанализированные за 7 лет, свидетельствуют о существенных различиях показателей сосудистой заболеваемости и более неблагоприятной обстановке по числу цереброваскулярных заболеваний в Учалинском районе. Полученные данные обуславливают необходимость разработки мероприятий по оценке объема осуществляемой в районах целевой программы первичной и вторичной профилактики сосудистых заболеваний головного мозга с последующим повышением ее эффективности, организации ранней диагностики, госпитализации, лечения и медицинской реабилитации при сосудистых заболеваниях мозга

Ключевые слова: сосудистые заболевания головного мозга, острые нарушения мозгового кровообращения, инсульт, антропогенная (техногенная) нагрузка

BOSHQIRDISTON RESPUBLIKASI HUDUDLARIDA TURLI XIL TEXNOGEN YUKLARGA EGA BO'LGAN MIYA QON TOMIR KASALLIKLARINING TARQALISHINI TAHLIL QILISH

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✓ Rezyume

Maqolada Boshqirdiston Respublikasining Uchalin va Qoraidel tumanlarida miyaning qon tomir kasalliklari, shu jumladan o'tkir miya qon aylanishining buzilishi (insult) tarqalishini o'rganish ma'lumotlari keltirilgan. 7-yil davomida tahlil qilingan ko'rsatkichlar Uchalin tumanidagi serebrovaskulyar kasalliklar soni bo'yicha qon tomir kasalliklari va noqulay vaziyat ko'rsatkichlarida sezilarli farqlarni ko'rsatadi. Olingan ma'lumotlar miya qon tomir kasalliklarining birlamchi va ikkilamchi profilaktikasining maqsadli dasturi hajmini baholash, keyinchalik uning samaradorligini oshirish, miya qon tomir kasalliklarida erta tashxis qo'yish, kasalxonaga yotqizish, davolash va tibbiy reabilitatsiyani tashkil etish bo'yicha chora-tadbirlarni ishlab chiqish zarurligini belgilaydi

Kalit so'zlar: miyaning qon tomir kasalliklari, miya qon aylanishining o'tkir kasalliklari, qon tomirlari, antropogen (texnogen) yuk

Relevance

Vascular diseases of the brain represent a major medical and social problem due to their high prevalence and severe consequences for the health of the population. According to the World Health Organisation, about 5 million people die annually from cerebral vascular diseases. The mortality rate from cerebral vascular diseases in Russia is one of the highest in the world (among other diseases of the circulatory system the mortality rate is 36.8%) and, unlike most economically developed countries, this indicator not only does not decrease, but also tends to increase [8, 21, 24]. The incidence of stroke depends on age, sex, region of residence and varies from 12 to 809 cases per 100 thousand population [22]. In Russia, there is a wide spread of cerebral vascular diseases in the working-age population and cases of acute cerebral circulatory disorders among persons of young age group [21]. The reason for such an increase in acute cerebral circulatory disorders and especially "rejuvenation" is urbanisation, changes in socio-economic conditions, change in social orientation, increase in stressful situations, decrease in motor activity, alcohol and drug abuse, and migration processes [15, 25]. On the initiative of the World Health Organization, wide epidemiological studies are conducted to find out the frequency of major vascular diseases of the brain and the role of various risk factors in their manifestation [7, 10, 12, 19]. Brain vascular diseases in the Republic of Bashkortostan are characterised by a high level of morbidity (2.92‰), morbidity (4.05‰) and mortality (42.7%). The Republic of Bashkortostan is characterised by unique natural and climatic conditions, as well as developed industry, which determines the diversity of risk factors of cerebrovascular diseases [4, 5, 16, 17].

Uchalinsky district, located in the northern part of the Bashkir Trans-Urals, borders with Abzelilovsky and Beloretsky districts. It has a developed mining and mining-processing industry. For 70 years of mining of Uchaly copper-zinc deposit in Uchaly town and its surroundings in the radius of 10-12 km and more the air is polluted with Cu, Zn, Pb, Cd, Se, Ba. Pollution of the territory is aerogenic due to blasting operations in Uchaly open pit, deflation from dumps, transport and processing of copper-zinc-zinc-coalined ores [11, 13, 18, 20, 27]. Environmental pollution in the area of the mill location is characterised by an association of lead, cadmium, arsenic, zinc, copper and other elements that can enter the body aerogenically, with food and water, be deposited in individual organs and tissues, posing a potential threat to health. (14, 27, 28). In Lake Uchaly and in groundwater near the dumps of Uchalinsky mining and processing plant the content of copper,

iron, cobalt, manganese is increased. [1,2]. In the produced food products, primarily in milk, the content of lead, mercury is increased. The highest chromium content indicators were found in all sampling points. In local vegetables, arsenic content is elevated in meat. (11, 14, 18, 27, 28].

There is information in the literature that the incidence of vascular diseases of the brain naturally increases under the influence of anthropogenic load on the human body.

Purpose of the study - comparison of the prevalence of cerebral vascular pathologies in the regions of the Republic of Bashkortostan characterised by different technogenic load.

The incidence rates of cerebral vascular diseases, including acute cerebral circulatory disorders, in Uchalinsky and Karaidelsky districts were analysed according to the annual reports of the neurological service of Uchalinsky and Karaidelsky districts of the Republic of Bashkortostan for 2016 - 2022.

Materials and methods

We chose Karaidelsky district of the Republic of Bashkortostan as a control, as a district with minimal anthropogenic load [6, 9, 18]

The following indicators were studied: morbidity - frequency of new cases of stroke (per 1000 inhabitants of the study area per year); morbidity - prevalence or frequency of all cases of stroke (per 1000 inhabitants of the study area per year); mortality - number of fatal stroke cases (per 1000 inhabitants of the study area per year); lethality - proportion of fatal cases relative to all registered cases in the study area (in per cent) [7, 23].

When analysing the obtained materials, mean and relative values were used. Statistical reliability of the difference between quantitative indicators was carried out by Student's criterion, the differences were considered reliable at $p < 0.05$.

Results and discussions

The comparative analysis of the number of hospitalised patients with cerebral vascular diseases in the studied districts has shown that their greater number is observed in Uchalinsky district, which increases the importance of developing measures of primary and secondary prevention, early diagnosis and treatment of cerebral vascular diseases in this district. Severe consequences of strokes make the problem of early hospitalisation significant: more than 25% of stroke survivors die within 1 month, 45% - within 1 year; about 55% of patients become disabled, 35% develop dementia. Studied rate of disability in cerebrovascular diseases of the population.

The rate of hospitalisation in the first day for acute cerebral circulatory disorders among the population of Uchalinsky district is statistically significantly higher than in Karaidelsky district. It was also found that the rate of hospitalisation in the 1st day for acute cerebral circulatory disorders among the population of Uchalinsky district is statistically significantly higher than in Karaidelsky district. This is due to the different level of diagnostic service in these districts and shows the need to improve the quality of first aid and the level of training of specialists in Karaidelsky district. In addition, the level of hospitalisation depends directly on the degree of development of communications, in particular communications and roads, as well as the distance of the area of residence to hospitals where qualified medical care is provided. Analysis of the mortality rate for cerebrovascular diseases in the study areas revealed high rates in the study areas. However, in 2022 in Uchalinsky district a sharp decline in mortality in cerebrovascular diseases can be traced, which may be explained by an increase in the level of medical care and preventive measures. The analysis of the levels of general morbidity, morbidity and morbidity in vascular diseases of the brain showed high values in Uchalinsky district, which suggests the influence of technogenic load.

Conclusion

The morbidity and prevalence rates of cerebral vascular diseases for 7 years have been analysed, indicating unfavourable situation in Uchalinsky district of the Republic of Bashkortostan. Risk factors of cerebral vascular diseases development are established, which allows to predict and timely correct their negative influences.

Statistical data show significant differences in the number of cerebral vascular diseases in Uchalinsky district and Karaidelsky district of the Republic of Bashkortostan. The obtained data

necessitate the development of measures to assess the volume of the targeted programme of primary and secondary prevention of cerebral vascular diseases in the districts with subsequent improvement of its effectiveness, organization of early diagnosis, hospitalization, treatment and medical rehabilitation for cerebral vascular diseases.

The obtained data showed the need to develop measures to assess the scope of the targeted programme of primary and secondary prevention of cerebral vascular diseases in the districts with subsequent improvement of its effectiveness, organisation of early diagnosis, hospitalisation, treatment and medical rehabilitation for cerebral vascular diseases.

LIST OF REFERENCES:

1. Abdrakhmanov, R.F. Hydrogeological conditions / R.F. Abdrakhmanov // Problems of ecology: principles of their solution on the example of the Southern Urals: collection of articles. - Moscow: Nauka, 2003. - P. 14-29.
2. Abdrakhmanov, R.F. Hydrogeoecology of Bashkortostan / R.F. Abdrakhmanov. - Ufa: Informreklama, 2005. - 344 p.
3. Borisova N.A. Analysis of cerebrovascular diseases in some regions of the Republic of Bashkortostan / N.A. Borisova, A.S. Rakhimkulov, E.R. Abdrakhmanova Journal of Neurology and Psychiatry. C.C. Korsakov. 2007. T. 107. № S. P. 199.
4. Borisova N.A. Organizational aspects of cerebrovascular diseases in the Republic of Bashkortostan and their epidemiology / N.A. Borisova, F.E. Gorbunov, A.R. Rakhmatullin, A.S. Rakhimkulov // Medical science - 2018: Republican conference of young scientists with international participation, dedicated to the Year of the family in the Republic of Bashkortostan, Day of medical worker, Ufa, 15 June 2018. - Ufa: Bashkir state medical university, 2018. - P. 13-15.
5. Golubchenko, I.V. Karaidelsky district / I.V. Golubchenko, G.N. Iskandarova // Bashkir encyclopaedia: in 7 vol. / ed. by M.A. Ilgamov. - Ufa: Bashkir Encyclopaedia, 2007. - VOL. 3. H - K. - P. 325-326
6. Gusev, E.I. Epidemiology of stroke in Russia / E.I. Gusev, V.I. Skvortsova, L.V. Stakhovskaya // Neurology and Psychiatry. S.S. Korsakov. Stroke (appendix). - 2003. - № 8. - P. 4-9.
7. Ermolaev, D.O. Regional features of mortality from circulatory system diseases in the context of the regional programme to reduce cardiovascular mortality / D.O. Ermolaev, Y.N. Ermolaeva // Medico-Pharmaceutical Journal Puls. - 2021. - T. 23, № 8. - P. 21-27.
8. Karaidel district [Electronic resource]: official resource. - Mode of access: <http://www.admkaraidel.ru/>
9. Kastey R.M. Epidemiological aspects and factors of development of acute cerebral circulation disorders (literature review) / R.M. Kastey, E.K. Dyusembekov, A.Sh. Zetov [et al] // Bulletin of the Kazakh national medical university. - 2020. - № 2-1. - P. 591-596.
10. Klicunova, V. Tourism with the prefix "agro" [Text] / V. Klicunova / Belarus. - 2014. - 62 p.

Entered 20.05.2025