CENTRAL ASIAN JOURNAL OF

MEDICAL AND NATURAL SCIENCES

Central Asian Journal of Medical and Natural Science (ISSN: 2660-4159) Editorial Team

Editor in Chief: Tugizov Sharof DSc, Department of Medicine, University of California, San Francisco sharof.tugizov@ucsf.edu Editor: Mirsaidov Ulmas Mirsaidovich Doctor of science in chemistry, Professor, Academician of the Academy of Sciences of Tajikistan editor@centralasianstudies.org Editor: Julya A. Zuenkova Lecturer (Healthcare management and public health), Peoples' Friendship University of Russia: Moscow, RU email: zuenkova@bk.ru Editor: Ravshan Z. Sabirov Professor, Full member of the Academy of Sciences of Uzbekistan; Director, Institute of biophysics and biochemistry at NUUz, Tashkent, Uzbekistan editor@centralasianstudies.org Editor: Sarymsakov Abdushkur Abdukhalilovich Doctor of science in technology, Professor, Deputy Director of Institute of Polymer Chemistry and Physics Academy of Sciences of Uzbekistan editor@centralasianstudies.org **Editor: Rashid Kulmatov** Doctor of science in Environmental Science, Professor of Department of Ecology, National University of Uzbekistan, Uzbekistan editor@centralasianstudies.org Editor: Tinatin Khokhobasvili The founder and a director of the circle of worldwide scientists, Address: Akhmeta Municipality: Village: Matani, Georgia email: xoxobashvili1986@gmail.com Editor: Mukhamadiev Nurali Kurbanalievich Doctor of science in chemistry, Professor of Samarkand State University, Uzbekistan editor@centralasianstudies.org **Editor: Karabaev Khurram Esankulovich** Doctor of science in medicine, Professor of Tashkent Pediatric Medical Institute, Uzbekistan editor@centralasianstudies.org **Editor: Khaydarov Khislat Kudratovich** Doctor of science in biology, Professor of Samarkand State University, Uzbekistan editor@centralasianstudies.org Editor: Berdiev Ergash Abdullaevich Deputy Director for Scientific Affairs and Innovation of the Termez branch of the Tashkent Medical Academy Candidate of Medical Sciences (Ph.D) Associate Professor editor@centralasianstudies.org Editor: Gulsanam Yu. Aytimova Doctor of philosophy (PhD) on Medical Sciences, Urgench Branch of Tashkent Medical Academy editor@centralasianstudies.org Editor: Yusupova Nasiba Fattaxovna **Docent, Tashkent Pharmaceutical Institute** editor@centralasianstudies.org

DOI: https://doi.org/10.47494/cajmns.v2i6

Published: 2022: Special Issue "Medical Ethics and Professionalism"



CONTENTS

Articles

<u>Issues of Comorbidity of Bronchial Asthma and Covid-19</u> 1-11 Nigmatullayeva Mukhabbat Akbarovna

Чай-Личебно Профилактическое Средство Для Желудка 12-14 Хикматова Мадина Фуркатовна

Современные Аспекты Изучения Особенностей Морфофункциональных Характеристик Семенников В Норме И При Различных Факторных Воздействиях

15-23 Рахимова Гулноз Шамсиевна

<u>Indicators of Postnatal Ontogenetic Development of the Mucous Membrane of the</u> <u>Pulmonary Bronchi in Young Children during Breastfeeding</u>

24–28 Kamolova Gulirano Bahriddin qizi, Sadikova Zumrat Shavkatovna, Sultonov Ravshan Komiljonovich

Prevalence of Bronchial Asthma in Surkhandarya Region and Ways to Improve Them 29-32 Pardayev Erkin Soatovich

<u>Эффективность Комплексного Лечения Больных Острой Сенсоневральной</u> Тугоухостью, Возникшей На Фоне Covid-19

33-39 Арифов С. С., Кадиров Ф. У.

Особенности Течения Острого Обструктивного Бронхита У Детей Дошкольного Возраста И Современная Тактика

40-46 Нормуротова Махфуза Муротбоевна, Камилова Гулноза Сапарбой кизи

Иммуноактивирующий Эффект Экссудата Листьев Алоэ Вера in Vivo 47-52 Шаропова Гулноза Самадовна

The Significance of Mental Factors in the Treatment of the Disease 53-57 Abdullaeva M. A, Inoyatov A. Sh

<u>Characteristic Prevalence of Endocrine Disease</u> 58-62 Umurov E. U

<u>Профилактика Асептического Некроза Головки Бедренной Кости</u> <u>Вызванного Стероидами При Лечении COVID-19</u> 63-78 Каххаров Азизбек Сирожитдинович, Гиясова Нигора Кобиловна, Шукурова Лазиза Борисовна, Шавкатова Шахзода Шавкатовна

Anti-Leishmanial Activity of Aloe Vera Leaf Exudate in Vivo

79-83 Sharopova Gulnoza Samadovna

<u>The Combination of Components of the Metabolic Syndrome in Women of</u> <u>Childbearing Age and Their Relationship with Age</u>

84-87 Kayumov U. K., Matmuratova S. O., Khatamova D. T., Saipova M. L., Musaeva Sh. Z.

<u>Результаты Эффективного Лечения Детей Дошкольного Возраста С</u> <u>Риносинуситом</u>

88-93 Х. Н. Холов, У. И. Нуров

<u>Интеграция С Клиническими Дисциплинами В Медицинском Вузе При</u> Обучении Русскому Языку Специальности

94-97 Абдуллаева Розанна Мирзатуллаевна

Коммуникационные Технологии Языкового Обучения В Медицинском Вузе 98-102 Абдуллаева Розанна Мирзатуллаевна

<u>Современный Подход К Вопросу Лечения Хронического Панкреатита</u> 103-108 Агзамова М. Н.

<u>Survey on Biomedical Waste Management in Laboratories in Rivers State</u> <u>University Teaching Hospital, Port Harcourt</u>

109-126 James, G. I., Owo, W. J.

<u>Hereditary Diseases of the Nervous System, Their Prevalence and Epidemiological</u> <u>Status</u>

127-132 Abdukodirov Eldor Isroilovich, Khaydarov Nodir Kodirovich, Matmurodov Rustam Jumanazarovich

Внезапная Сердечная Смерть, Значимость, Определение, Интервалы Qt 133-137 Моминов А. А., Моминов А. Т.

CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES



Volume: 03 Issue: 06 | Nov-Dec 2022 ISSN: 2660-4159

http://cajmns.centralasianstudies.org

Hereditary Diseases of the Nervous System, Their Prevalence and Epidemiological Status

- 1. Abdukodirov Eldor Isroilovich
- 2. Khaydarov Nodir Kodirovich
- 3. Matmurodov Rustam Jumanazarovich

Received 2nd Sep 2022, Accepted 3rd Oct 2022, Online 16th Nov 2022

^{1,2} Tashkent State Dental Institute ³ Tashkent Medical Academy **Abstract:** Hereditary diseases of the nervous system have a high proportion in the overall structure of neurological pathology. The particular relevance of this problem is due to the lack of effective treatment methods and the existing possibility of repeated cases in subsequent generations. The study of neurohereditic diseases is a complex task not only of modern neurogenetics, but also of clinical neurology. This is due to the presence of characteristic features that distinguish neurohereditic diseases from other pathologies of the nervous system.

Key words: Hereditary diseases, clinical polymorphism, epidemiology, Human genome.

Relevance. The health of the population occupies one of the first places in the system of vital values of any state. Reducing morbidity and preserving the health of the population are the most important socio-economic tasks of the country and they are particularly acute today for Uzbekistan, since such factors as the current population decline, along with high morbidity and mortality, are a real threat not only to the development of the country, but also to its national security.

As you know, hereditary diseases of the nervous system are one of the important medical and social problems. They make up a significant share in the burden of monogenic diseases and in the structure of neurological pathology, especially in children and adolescents [1]. Hereditary diseases of the nervous system manifest more often in adolescence and are steadily progressive without treatment, leading patients to severe disability.

Excessive diversity of nosological forms, genetic heterogeneity and pronounced clinical polymorphism of hereditary diseases of the nervous system not only complicates their diagnosis, but also complicates the conduct of medical and genetic counseling in families burdened with these ailments [3].

The first place among all hereditary monogenic neurological diseases is occupied by hereditary neuromuscular diseases (NMD), which include progressive muscular dystrophy, which is a clinically and genetically heterogeneous group with primary damage to skeletal muscles of a non-inflammatory nature, which is also characterized by a wide nosological spectrum and pronounced clinical polymorphism [2].

127 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

In recent years, significant progress has been made in the study of PMD, associated with the disclosure of the structural and molecular foundations that regulate the functioning of muscle fiber. However, despite the fact that active attempts of gene therapy and the widespread introduction of prenatal diagnosis of PMD into practice, the need for timely allocation of the development of preventive measures, social rehabilitation and adaptation of patients continues to be one of the most important urgent problems of medical science [7].

Thanks to the progress in the development of society and medicine, at the end of the 90s of the XX century, the concept of genomic or personalized medicine was formed, which is based on the principles of the classics of patronymic medicine of the XIX century. The principle of a personal approach to the patient received a new reading in the XXI century in the form of the main postulate of personalized medicine: "routine use of genotypic analysis, usually in the form of DNA testing, in order to improve the quality of medical care." New approaches make it possible to move from the "response" medicine that exists today, which deals with an existing disease and fights symptoms, to personalized or genomic medicine. Leroy Hood, a Nobel Prize lauret and one of the founders of personalized medicine, defines it as medicine of four "P": predictive (aimed at predicting the disease before its symptomatic appearance); preventive (preventing disease); personalized (taking into account individual, primarily genetic characteristics of the patient) and participatory (participatory medicine, i.e. implying the active participation of the patient in the identification of his genetic characteristics and preventive measures) [1, 2].

1. Analysis of literature data and problem statement

The implementation of such projects as "Human Genome", "Genomes of races", "1000 and 1 genome", "GWAS" (Genome-Wide Association Study), allowed us to accumulate a huge amount of information about monogenic hereditary diseases (NB), multifactorial (polygenic) diseases and various genetically determined predispositions. Based on studies of the human genome, it was possible to identify not only the genes that cause monogenic NB, but also mutations that lead to the most frequent, so-called multifactorial diseases resulting from the interaction of genetic factors and unfavorable environmental conditions. It is proved that the etiopathogenetic basis of such multifactorial diseases as essential hypertension, diabetes mellitus, bronchial asthma, atherosclerosis, some forms of cancer is a genetic factor, namely the presence of so-called "predisposition genes", the damaging effect of which is realized against the background of adverse environmental factors [3-5].

And if for multifactorial diseases, genetic changes are not the only ones determining the development of the disease, then for monogenic NBS they are the etiological cause. Taking into account the absence of pathogenetic methods of treatment of most forms of NB to date, the most effective method of combating this pathology is not so much prevention, but first of all, the prediction of the occurrence of the disease. The words of the French scientist Jean Dosse, founder of predictive medicine, Nobel Prize winner: "to prevent a disease, it must be foreseen" are now more relevant than ever [6].

Hereditary diseases of the nervous system (NBNS) make up a significant part of the structure of monogenic NBS. They account for a significant part, more than 5%, of all neurological pathology in modern society. NBNS occupy a special place both among all forms of hereditary human diseases and pathology of the nervous system, which is associated with their overall high prevalence, a wide variety of nosological units, significant phenotypic polymorphism and pronounced genetic heterogeneity. Most NBNS are of a severe progressive nature, often lead to early disability, and sometimes death of the patient, while effective pathogenetic treatment has not been developed to date [4, 7, 8].

The individual approach, as the basis of the principle of personalized medicine, is partly due to the presence of pronounced clinical polymorphism of many diseases, manifested in the development of individual individuals of various degrees of pathological manifestations from erased to severe forms.

128 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

The development of NB occurs as a result of the influence of an etiological factor in the form of strictly deterministic gene mutations that have passed through the evolution of tens and hundreds of years of natural selection through the acquisition of a certain type of inheritance and molecular genetic features, as well as a clear mechanism of pathogenesis, fully controlled by gene activity. In this regard, it would be possible to assume the presence of strictly unified clinical manifestations within a certain nosological form. However, many NBNS are clinically and genetically heterogeneous with a wide variability in the age of manifestations, as well as the depth of the pathological process. The clinical polymorphism of NBNM significantly complicates their differential diagnosis and, accordingly, the prevention of their possible development in the population [3, 4, 9].

For the first time, clinical polymorphism of the NBNS began to be deeply analyzed back in the 20-30s of the XIX century by an outstanding neurologist and geneticist S. N. Davidenkov, who proved that its main causes are the environment, the nature of mutations and specific genotypic features of the population; genetic heterogeneity was also revealed, manifested in the occurrence of various genotypes of the disease and masquerading as clinical polymorphism.

However, despite a fairly wide clinical polymorphism, the absence of a smooth transition from norm to pathology is characteristic of all NBS, and even mild forms of the disease have, although very minimal, but significant diagnostic signs for this disease, which corresponds to the basic genetic rule: the normal genotype determines the normal phenotype, and the mutant genotype determines the mutant phenotype. [8, 12].

Taking into account the above, early diagnosis and prevention of NBNS are of great medical, social and economic importance, the full implementation of which is impossible without an idea of the etiology, pathogenesis and features of their spread.

2. Population-epidemiological aspects of hereditary diseases of the nervous system

Significant priority is currently being given to research that allows us to assess the population frequency of hereditary pathology and to study their clinical polymorphism and genetic heterogeneity. Many publications of both domestic and foreign authors are devoted to the epidemiology of individual NBS in different populations, indicating that there are no NBS with the same population frequency of occurrence and the spectrum of gene mutations that determine their development.

The study of the prevalence of NBNS is important both from a theoretical and practical point of view. The theoretical significance lies in determining the model of the genetic structure of the population, taking into account the territorial distribution of mutant genes and the features of genetic differentiation of the population, as well as the genetic burden of the population, which is defined as a decrease in the average fitness of the population compared to the population, all individuals who have a genotype that ensures maximum fitness. From a practical point of view, the identification of population-territorial features of the distribution, spectrum, variability of manifestations and the genetic nature of hereditary pathology is the basis for creating an effective system for monitoring them, as well as developing diagnostic and preventive methods that are optimal for a particular region [17-20].

In the literature, the possible causes of inter-population differences in the prevalence of certain forms of hereditary diseases of the nervous system are very intensively discussed, the primary of which are molecular genetic features peculiar to specific populations. According to the modern theory of evolution, the main factors determining the formation of the gene pool of various populations are natural selection, migrations, mutations and random events. As a result of their combined impact in specific environmental conditions, the integration of unique features of the structure of certain groups occurs, manifested in the form of differentiation of different populations in the feature space.

129 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

The dynamics of modern microevolutionary processes is quite complex and ambiguous, and, in general, differs significantly from that in small isolated populations of the past. Recent decades have been characterized by an increase in urbanization; a significant increase in the scale of migrations and, as a consequence, the expansion of the boundaries of breeding areas, an increase in the proportion of interethnic marriages and the associated recombination of genes, which together creates prerequisites for the formation of new genotypes and a significant increase in the level of genetic variability. Considering also that along with the listed factors, there is a significant decrease in the role of natural selection and the influence of a large number of mutagenic factors, it can be assumed that the genetic load in human populations is increasing. The founder of population genetics G. Meller spoke about this back in the 1950s: "Many genotypes that had reduced fitness and were rejected by natural selection in modern society live to reproductive age and leave offspring with reduced fitness as well; as a result, the genetic burden is growing, and the fitness of modern populations is falling, which can have dramatic consequences for all mankind ..." [4, 21-24].

It should also be noted that the differentiation in the burden and diversity of NB is revealed not only between different populations, but also among individual groups of the same population species living in different climatic, geographical and ecological zones. Consequently, the results obtained in the study of one local ethno-territorial region cannot be transferred to the entire population as a whole, and therefore the study of the patterns of formation of the structure and dynamics of the genetic characteristics of the population of individual regions is relevant, scientifically sound and logical [15, 23].

An important feature of the Ukrainian population is the large anthropological and culturalethnographic diversity of local territorial-ethnic areas associated with the complex historical process of their formation in the process of settling the area of the Ukrainian population, which since ancient times has been located at the intersection of the forest and forest-steppe of Eastern Europe, the Eurasian steppes and the Balkan-Carpathian historical region. The main territorial historical and ethnographic regions of Ukrainians are distinguished: Middle Dnieper, Podillia, Galicia, Zaporozhye, Slobozhanshchina, Polesie, Transcarpathia, Bukovina, Pokutye, Tavria, Donbass, Southern Bessarabia [25, 27, 29].

A questionnaire survey of a wide range of medical information sources is used, suggesting the identification of approximately 500 forms of the spectrum of monogenic pathology and the subsequent examination of identified patients by highly qualified specialists consisting of a neurologist, pediatrician, optometrist and dermatologist. The final verification of the diagnosis, if necessary, is carried out on the basis of highly informed diagnostic methods in medical and genetic centers.

In the standard of epidemiological research of hereditary pathology, a limited geographical region with a population of 0.5 to 5 million people is used, which makes it possible to avoid a negative impact on the indicators of any family with several affected. This region should not be excessively large, which is necessary to ensure reliable detection of cases.

The population-genetic method will allow us to get a unified idea of the components of the load of hereditary pathology (burden, spectrum), as well as about the factors correcting the quantitative and qualitative distribution of various diseases in the structure of the load (autosomal dominant BP, autosomal recessive AR and X-linked forms). The territory of Slobozhanshchina belongs to the second geographical zone of the first cluster of the Ukrainian population and corresponds to the Central Ukrainian anthropological type, which, in turn, is divided into western and eastern variants [27,30]

Conclusions

In conclusion, it should be noted that the epidemiological and molecular genetic foundations of most NBNS remain largely unexplored; their etiology and pathogenesis are unclear, but it is obvious that

130 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

the mechanisms of their formation are complex and diverse. And it is these diseases that currently have no adequate methods of treatment other than preventive, i.e. aimed at preventing the disease. Therefore, in order to ensure the most effective diagnosis and prevention of NBNS, it is necessary to study their prevalence, clinical and molecular genetic characteristics in individual regions and ethnic groups.

Literature

- 1. Puzyrev, V. P. Genomic medicine present and future. Molecular biological technologies in medical practice [Text] / V. P. Puzyrev // Novosibirsk: Alfa Vista. 2003. Issue 3. pp. 3-26.
- Genetic passport the basis of individual and predictive medicine [Text] / edited by V. S. Baranov.
 St. Petersburg: Publishing House N.L., 2009. 528 p.
- Rudenskaya, G. E. Hereditary diseases of the Central nervous system: new in diagnosis and medical-genetic counseling [Text] / G. E. Rudenskaya, E. Y. Zakharova, S. V. Mikhailova // Medical genetics. - 2008. - No. 11. - pp. 28-39.
- 4. Hereditary diseases in human populations [Text] / edited by E. K. Ginter. Moscow: Medicine, 2002. 304 p.
- 5. Auffray, C. Systems medicine: the future of medical genomics and healthcare [Techg| / C. Auffray, C. Zhu, L. Hood // Genome Medicine. 2009. Vol. 1, Issue 1. P 2.1-2.11. doi: 10.1186/gm2
- Zinchenko, P. A. Features of medical and genetic counseling in various populations and ethnic groups [Text] / P. A. Zinchenko, E. K. // Ginter Medical genetics. - 2008. - T 7, No. 10. - pp. 20-29.
- Zinchenko, P. A. Genetic epidemiology of hereditary diseases [Text]: sat. mater. conf. / P. A. Zinchenko, G. I. Yelchinova, E. K. Ginter // Modern achievements of genetic research: clinical aspects. Rostov-on-Don, 2004. pp. 16-24.
- 8. Ginter, E. K. Medical genetics [Text] / E. K. Ginter. Moscow: Medicine, 2003. 448 p.
- Riesch, N. Categorization of humans in biomedical research: genes, race and disease [TECHC / N. Riesch, E. Burchardt, E. Ziv, H. Tang // Genome Biology. - 2002. - Vol. 3, Issue 7. - P 2007.1-2007.12. doi: 10.1186/gb-2002-3-7-comment2007
- Shishkin, S. S. Clinical polymorphism, genetic heterogeneity and problems of pathogenesis of primary myopathies [Text] / S. S. Shishkin, N. I. Shakhovskaya, I. N. Krakhmaleva // Journal of Neurology and Psychiatry. - 2002. - No. 2. - pp. 54-60.
- 11. Gorbunova, V. N. Introduction to molecular diagnostics and gene therapy of hereditary diseases [Text] / V. N. Gorbunova, V. S. Baranov. St. Petersburg: Special Literature, 1997. 287
- 12. Isroilovich A. E. et al. The Role And Importance Of Gliah Neurotrophical Factors In Early Diagnosis Of Parkinson Disease //Texas Journal of Medical Science. 2022. T. 5. C. 1-6.
- 13. Abdukodirov E. I., Khalimova K. M., Matmurodov R. J. Hereditary-Genealogical Features of Parkinson's Disease and Their Early Detection of the Disease //International Journal of Health Sciences. №. I. C. 4138-4144.
- 14. Ogli, Abdukodirov Eldor Tolibjon, and Yuldasheva Risolatkhon Kobil Kizi. "eco composite materials using basalt rocks." Проблемы современной науки и образования 4 (173) (2022): 111-114.
- Matmurodov R., Khalimova K., Abdukodirov E. Character changes as a predictor of Parkinson's disease in persons of Uzbek nationality //Journal of the Neurological Sciences. 2019. T. 405. C. 246.
- 16. Naimov, O., Abdukodirov, E., Matmurodov, R., & Khalimova, K. (2019). Constipation as a predictor of Parkinson's disease in persons of Uzbek nationality. Journal of the Neurological

131 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org

CAJMNS

Sciences, 405, 302.

- 17. Абдукадиров, Э. И., Матмуродов, Р. Ж., Халимова, Х. М., & Муминов, Б. А. (2021). Паркинсон касаллигининг ирсий-генеологик хусусиятлари ва уларни касалликни эрта аниклашдаги ўрни. Журнал неврологии и нейрохирургических исследований, 2(4).
- Ginter, E. K. The influence of genetic structure on the burden of hereditary diseases in Russian populations [Text] / E. K. Ginter // Bulletin of the Russian Academy of Medical Sciences. - 1994. -No. 9. - pp. 69-75.
- Kurbanovna S. I. Functioning of the Immune System in Children, After Surgical Correction of Congenital Heart Defects //European Journal of Life Safety and Stability (2660-9630). – 2021. – T. 12. – C. 439-446.
- 20. Sadulloeva, I. K. (2021). Ashurova NG clinical and immunological features of congenital heart defects in adolescent girls. *Europe's Journal of Psychology*, 17(3), 172-177.
- 21. Baratova, M. S., Ataeva, M. A., Yuldasheva, S. T., & Vohidov, U. G. (2020). Periodontal diseases in military age persons and arterial hypertension. *Asian Journal of Multidimensional Research* (*AJMR*), 9(4), 111-113.
- 22. Baratova M. S., Atayeva M. A. The estimation of heart rhythm disturbances at the left atrial stunding on early stages of remodeling left ventricular //World medicine journal. 2020. №. 1. C. 1.
- 23. Baratova M., Makhmudova M. Predictors of sudden death in patients with arterial hypertension //InterConf. 2020.
- 24. Эргашов А. Р. Характеристика острой травмы грудопоясничного отдела позвоночника //central asian journal of medical and natural sciences. – 2021. – С. 150-153.
- 25. Saidjonovna R. D. Method For Improving The Prevention Of Dental Caries In Children Using The Device Aerodent //Web of Scientist: International Scientific Research Journal. 2021. T. 1. №. 01. C. 26-32.
- 26. Saidjonovna, Raxmatova Dilnora. "Modern concepts of the causes of development, prevention and principles of treatment of dental caries in children." European Journal of Molecular & Clinical Medicine 8.1 (2021): 1477-1482.
- Saidjonovna, Raxmatova Dilnora. "Features of treatment of dental caries in children using medicine Aerodent." International Engineering Journal For Research & Development 5.29.05 (2020).
- 28. Kabilova, Gulshan. General incidence with temporary loss of employment in silk milling plants." InterConf (2021).
- 29. Kobilova, Gulshan. "Modernization of production is a decisive factor of reducing the incidence of diseases in silk industries." InterConf (2021).
- 30. Кобилова Г. А., Жумаева А. А. Факторы риска развития внутрибольничных инфекций в акушерских стационарах Бухарской области //Материалы межвузовской научнопрактической конференции «Актуальные вопросы медицины», инициированной Южноказахстанской медицинской академией и шымкентским медицинским институтом международного казахско-турецкого университета имени ха ясауи. – 2018. – С. 61.
- 31. Кобилова Г. А., Саломова Х. Ж. Показатели здоровья рабочих в шелкомотальном производстве «бухара бриллиант силк» //Новый день в медицине. 2020. №. 2. С. 407-408.

132 Published by " CENTRAL ASIAN STUDIES" http://www.centralasianstudies.org