



STORAGE OF SALMONELLA, ESHIRICHLIA AND STAPHYLOCOCCUS IN SOME DAIRY PRODUCTS DURING ITS STORAGE AT DIFFERENT TEMPERATURES.

Shaikulov Hamza Shodievich

Samarkand State Medical University

Bobokandova Mehriniso Fazliddinovna

Samarkand State Medical University

Article history:

Received: December 8th 2022

Accepted: January 8th 2023

Published: February 10th 2023

Abstract:

The article discusses the preservation of salmonella, Escherichia coli and staphylococci in cottage cheese when stored at room conditions (at a temperature of 20-24°C) and in a refrigerator (at a temperature of +3°C.). The main attention is paid to the identification of the terms of survival of crops in cottage cheese during interval studies.

Keywords: S. enteritidis gartneri, S. typhimurium, E. coli, Staphylococcus aureus, Staphylococcus epidermidis, Staphylococcus saprophyticus

THE PURPOSE OF THE WORK . Study on the basis of microbiological studies of the persistence of Salmonella, Escherichia coli and staphylococci in cottage cheese when stored at room conditions (at a temperature of 20-24°C) and in a refrigerator at a temperature of + 3°C.)

MATERIALS AND METHODS. Salmonella cultures were taken for the experiment: S. enteritidis gartneri, S. typhi murium; coli enteropathogenic serotypes - *Escherichia coli* O9, O26 and O111 and staphylococci

forming golden yellow (*Staphylococcus aureus*), lemon yellow (*Staphylococcus saprophyticus*) and white (*Staphylococcus epidermidis*) pigments.

Determination of the terms of survival of cultures in cottage cheese after various periods of time was established on the MPB, MPA, and studied the morphological and serological properties with specific sera.

The results of the conducted studies are presented in tables 1 and 2.

Table 1
Persistence of microorganisms in cottage cheese stored at room conditions

Storage conditions, temperature	Cultures of microorganisms taken for research	Study days					
		2nd	3rd	4th	5th	6th	7th
Indoor 20-24 °C	<i>S. Enteritidis gartneri</i>	+	+	+	+	-	-
	<i>S. typhimurium</i>	+	+	+	-	-	-
	Serotypes of Escherichia coli:						
	About 9	+	+	+	+	-	-
	<i>E. coli</i> O26	+	+	+	+	-	-
	<i>E. coli</i> O111	+	+	+	+	-	-
	Staphylococci:						
	<i>Staphylococcus aureus</i>	+	+	+	-	-	-
	<i>Staphylococcus epidermidis</i>	+	+	-	-	-	-
	<i>Staphylococcus saprophyticus</i>	+	+	-	+	-	-

LEGEND:

+ - microorganisms detected;

- - microorganisms are not detected.

As can be seen from Table 1, in cottage cheese stored at room conditions, Salmonella persisted for 4-5 days (especially *S. enteritidis gartneri*), enteropathogenic Escherichia coli serotypes—5-6 days (especially O26), and staphylococci —3-5 days (especially *Staphylococcus epidermidis*).

Further studies were not carried out, since the curd has changed organoleptically and has become unsuitable for human consumption.

As can be seen from Table 2, in cottage cheese stored in the refrigerator, Salmonella persisted for 6-7 days (especially *S. typhi murium*), enteropathogenic Escherichia coli serotypes -7-8 days (especially *E. coli* O26 and *E. coli* O111) and staphylococci - 6-8 days (especially *Staphylococcus*



aureus).

Table 2
Persistence of microorganisms in cottage cheese stored in the refrigerator

Storage conditions, temperature	Cultures of microorganisms taken for research	Study days								
		2nd	3rd	4th	5th	6th	7th	8th	9th	
Fridge (+3°C)	<i>S. Enteritidis Gartneri</i>	—	+	+	+	+	—	—	—	
	<i>S. typhimurium</i>	—	+	+	+	+	+	—	—	
	Serotypes of Escherichia coli:									
	<i>E. coli O 9</i>	—	+	+	+	+	+	—	—	
	<i>E. coli O26</i>	—	+	+	+	+	+	—	—	
	<i>E. coli O111</i>	—	+	+	+	+	—	—	—	
	Staphylococci:									
	<i>Staphylococcus aureus</i>	—	+	+	+	+	—	—	—	
	<i>Staphylococcus epidermidis</i>	—	+	+	+	+	—	—	—	
	<i>Staphylococcus saprophyticus</i>	—	+	+	+	+	—	—	—	

Symbols are the same as in Table 1.

CONCLUSIONS. Thus, in cottage cheese stored under normal conditions (room and refrigerator), *Salmonella*, *Escherichia coli* and *Staphylococcus aureus* survive for a long time. If the above microorganisms are found in the curd, the product is considered unfit for consumption. Obviously, it is possible to use these products after appropriate heat treatment, but at the same time organoleptic properties of cottage cheese change.

BIBLIOGRAPHY:

1. Azimovich A. U. B., G'iyosovna S. D., Zokirovna M. M. XLAMIDIYANING INSON SALOMATLIGIGA TA'SIRINI MIKROBIOLOGIK TAHILLI VA DIOGNOSTIKASI //Talqin va tadqiqotlar ilmiy-uslubiy jurnalı. – 2022. – Т. 1. – №. 11. – С. 153-161.
2. Gadaevich K. A., Fazliddinovna B. M. Morphofunctional State of The Reproductive System in Mature Intact Rats in the Arid Zone //Central Asian Journal of Medical and Natural Science. – 2022. – Т. 3. – №. 5. – С. 511-516.
3. Karabaev A., Bobokandova M. REACTIVITY OF THE REPRODUCTIVE SYSTEM IN MATURE INTACT RATS IN THE ARID ZONE //International Bulletin of Medical Sciences and Clinical Research. – 2022. – Т. 2. – №. 10. – С. 50-55.
4. Razikovna R. M. Forensic examination of fractures of the bones of the nose //European science review. – 2018. – №. 7-8. – С. 162-164.
5. Sh S. H., Mamarasulova N. I. ANTIBIOTIKLAR VA ANTIBIOTIKOREZISTENT LAKTOBAKTERIYALARINI BIRGALIKDA BOLALARDAGI ESHERIXIOZ KASALLIKLARNI DAVOLASHDA QO 'LLANISHI. – 2023.
6. Sh S. H., Mamarasulova N. I. O 'TKIR DIAREYALARDA ESHERIXIYALARNING AJRALISHI. – 2023.
7. Sh S. K. et al. OF PSEUDOMONAS AERUGINOSA IN INFECTIOUS PATHOLOGY OF HUMANS, ANIMALS AND BIRDS //Galaxy International Interdisciplinary Research Journal. – 2022. – Т. 10. – №. 3. – С. 237-240.
8. Vaxidova A. M. et al. KATTALARDA TILLARANG STAFILOKOKK INFEKSIYASI VA UNING ANTIBIOTIKKA SEZGIRLIGI //AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI. – 2022. – С. 170-175.
9. Нарзиев Д., Шайкулов Х. Чувствительность к антибиотикам *salmonella typhimurium*, находящихся в составе биопленок //Eurasian Journal of Medical and Natural Sciences. – 2023. – Т. 3. – №. 1. – С. 60-64.
10. Саидинов П. и др. Клинико-эпидемиологическая характеристика стафилококковых энтероколитов у детей раннего возраста //Журнал проблемы биологии и медицины. – 2014. – №. 3 (79). – С. 151-152.
11. Хусанов Э. У., Расулова М. Р., Шайкулов Х. Ш. Особенности повреждений подъязычно-гортанного комплекса при тупой механической травме //Астана медициналық журналы. – 2022. – №. S1. – С. 262-265.
12. Шайкулов Х. Ш., Муратова З. Т. Анализ стартовой антибактериальной терапии острых тонзиллитов в условиях поликлиники у детей //Педиатр. – 2017. – Т. 8. – №. S.



13. Шайкулов Х. Ш., Одилова Г. М. ЧУВСТВИТЕЛЬНОСТЬ К АНТИМИКОТИКАМ ДРОЖЖЕПОДОБНЫХ ГРИБОВ РОДА CANDIDA, ВЫДЕЛЕННЫХ ИЗ ВЛАГАЛИЩА У БЕРЕМЕННЫХ ЖЕНЩИН В АМБУЛАТОРНЫХ УСЛОВИЯХ //Молодежь и медицинская наука в XXI веке. – 2017. – С. 169-170.
14. Шайқұлов Ҳамза Шодиевич, Нарзиев Джавохир Убайдуллаевич БОЛАЛАР ИЧАК ЭШЕРИХИОЗИНИ ДАВОЛАШДА АНТИБИОТИКОРЕЗИСТЕНТ ЛАКТОБАКТЕРИЯЛАРДАН ФОЙДАЛАНИШНИНГ САМАРАДОРЛИГИ // Talqin va tadqiqotlar ilmiy-uslubiy jurnali. 2023. №17. URL: <https://cyberleninka.ru/article/n/bolalar-ichak-esherihiozini-davolashda-antibiotikorezistent-laktobakteriyalardan-foydalanishning-samaradorligi>
15. Annayeva, D. (2022). CICHORIUM INTYBUS LISOLATION OF ENDOPHYTIC MICROORGANISMS FROM PLANTS AND IDENTIFICATION OF BIOTECHNOLOGICAL POTENTIAL. Eurasian Journal of Medical and Natural Sciences, 2(6), 54–61. извлечено от https://www.in-academy.uz/index.php/EJMNS/article/view/175_5
16. Annayeva, D. G. Y., Azzamov, U. B., & Annayev, M. (2022). ODDIY SACHRATQI (CICHORIUM INTYBUS L) O'SIMLIGIDAN ENDOFIT MIKROORGANIZMLAR AJRATIB OLISH. Oriental renaissance: Innovative, educational, natural and social sciences, 2(5-2), 963-972. <https://cyberleninka.ru/journal/n/oriental-renaissance-innovative-educational-natural-and-social-sciences>
17. Giyosovna, S. D. (2023). ODDIY SACHRATQI (CICHORIUM INTYBUS L) O'SIMLIK QISMLARIDAN ENDOFIT BAKTERIYALARNING SOF KULTURALARINI AJRATISH USULLARI. Новости образования: исследование в XXI веке, 1(6), 387-393. <http://nauchniyimpuls.ru/index.php/noiv/article/view/3573>
18. Shodiyeva, D. (2023). BIO-MORPHOLOGICAL CHARACTERISTICS, GEOGRAPHICAL DISTRIBUTION AND USE IN TRADITIONAL MEDICINE OF CICHORIUM INTYBUS. GOLDEN BRAIN, 1(2), 252-256. <https://researchedu.org/index.php/goldenbrain/article/view/1337>
19. Shodiyeva, D. (2023). SANOAT MIKROBIOLOGIYASINING BIOTEXNOLOGIYADAGI AHAMIYATI. GOLDEN BRAIN, 1(2), 116-120. <https://researchedu.org/index.php/goldenbrain/article/view/1310>
20. Shodiyeva, D. (2023). INDOLIL SIRKA KISLOTA MIQDORINI ANIQLASH. GOLDEN BRAIN, 1(2), 321-324. <https://researchedu.org/index.php/goldenbrain/article/view/1361>
21. Dildora, S. (2023). CICHORIUM INTYBUS DAN OLINGAN BACILLUS AVLODIGA MANSUB BAKTERIYALARINING BIOTEXNOLOGIK POTENSIALI VA MIKROBIOLOGIYADAGI ISTIQBOLLARI. O'ZBEKİSTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(15), 726-732. <https://bestpublication.org/index.php/ozf/article/view/3359>
22. Annayeva, D. G. Y., Azzamov, U. B., & Annayev, M. O. S. (2022). O'SIMLIGIDAN ENDOFIT MIKROORGANIZMLAR AJRATIB OLISH.
23. G'iyosovna, S. D., & Muxriddin G'iyos o'g, A. (2023). DOMINANT MICROORGANISMS IN CICHORIUM INTYBUS. <https://researchedu.org/index.php/goldenbrain/article/view/1492>
24. Boltayev, K. S., & Jamalova, F. A. (2023). MIKOZLARGA MIKROBIOLOGIK MIKROSKOPIK TASHXIS QO 'YISHNING O 'ZIGA XOS XUSUSIYATLARI. GOLDEN BRAIN, 1(3), 35-40. <https://researchedu.org/index.php/goldenbrain/article/view/1466>
25. Жамалова, Ф. А., Болтаев, К. С., & Шодиева, Д. Г. (2023). ВОЗБУДИТЕЛИ МИКОЗОВ СЛЕПНЕЙ НА ТЕРРИТОРИИ РАЗЛИЧНЫХ РЕГИОНОВ УЗБЕКИСТАНА. GOLDEN BRAIN, 1(3), 28-34. <https://researchedu.org/index.php/goldenbrain/article/view/1465>
26. Jamalova, F. A., & Boltayev, K. S. (2023). BACILLUS THURINGIENSIS BAKTERIYALAR ASOSIDA YARATILGAN BIOPREPARATLAR. GOLDEN BRAIN, 1(3), 23-27. <https://researchedu.org/index.php/goldenbrain/article/view/1464>
27. Hamza, S., Muzaffar, A., Dildora, S., & Ulugbek, A. (2023). BACILLUS THURINGIENSIS BAKTERIYA SHTAMMLARINING PHASEOLUS VULGARIS OSIMLIGI BIOMETRIK KORSATKICHLARIGA



- VA RIVOJLANISHIGA TASIRI. *Scientific Impulse*, 1(6), 327-332.
<http://nauchniyimpuls.ru/index.php/ni/article/view/4355>
28. Dildora, S., & Mekhriniso, B. (2023, January). APPLICATION AREAS OF BIOLOGICALLY ACTIVE METABOLITES PRODUCED BY ENDOPHITE BACTERIA. In *E Conference Zone* (pp. 92-95).
<http://www.econferencezone.org/index.php/ecz/article/view/1941>
29. Dildora, S., & Mekhriniso, B. (2023). APPLICATION AREAS OF BIOLOGICALLY ACTIVE METABOLITES PRODUCED BY ENDOPHITE BACTERIA. *World Bulletin of Public Health*, 18, 112-114.
<https://scholarexpress.net/index.php/wbph/article/view/2073>
30. o'g'li Shernazarov, F. F., & qizi Tohirova, J. I. (2023). BAKTERIYALARNING IKKILAMCHI BIOLOGIK FAOL METABOLITLAR SINTEZ QILISH XUSUSIYATLARI VA ULARNING FARMASEVTIKADA QO 'LLANILISHI. *RESEARCH AND EDUCATION*, 2(1), 269-276.
<https://researchedu.org/index.php/re/article/view/1455>
31. Vahobovna, M. Z., & Dildora, S. (2023). BIOLOGY AND BIOTECHNOLOGY OF ENDOPHITE MICROORGANISMS. *World Bulletin of Public Health*, 18, 115-117.
<https://scholarexpress.net/index.php/wbph/article/view/2074>
32. Azimovich, A. U. B., & G'Iyosovna, S. D. (2023). O 'SIMLIK O 'SISHI VA RIVOJLANISHIDA FOYDALI MIKROORGANIZMLARNING AHAMIYATI. *Talqin va tadqiqotlar ilmiy-uslubiy jurnali*, 1(17), 257-260.
<https://cyberleninka.ru/article/n/o-simlik-o-sishi-va-rivojlanishida-foydali-mikroorganizmlarning-ahamiyati>
33. Azimovich, A. U. B., G'Iyosovna, S. D., & Akmalovich, M. A. (2023). ANTIBIOTIKLAR TA'SIR DOIRASIGA KO'R'A KLASSIFIKATSIYASI. *Talqin va tadqiqotlar ilmiy-uslubiy jurnali*, 1(17), 245-251.
<https://cyberleninka.ru/article/n/antibiotiklar-tasir-doirasiga-kora-klassifikatsiyasi>
34. G'iyosovna, S. D. (2023). ODDIY SACHRATQI (CICHORIUM INTYBUS L) O'SIMLIGIDAN ENDOFIT MIKROORGANIZMLAR AJRATISH VA ULARNING BIOTEXNOLOGIK POTENSIALINI BAHOLASH.
- <https://researchedu.org/index.php/goldenbrain/article/view/1506>
35. Tohirova, J. I. (2023). VAKSINA OLISH TEXNALOGIYASI VA UNING AHAMIYATI. GOLDEN BRAIN, 1(3), 256-260.
<https://zenodo.org/record/7605291#.Y-cOwHZBy3A>
36. Fazliddinovna, B. M., Olimovna, O. P., & Abduhakimovich, X. D. (2022). Innovative technologies in the training of future doctors. *ACADEMICIA: An International Multidisciplinary Research Journal*, 12(4), 594-597.
37. Gadaevich, K. A., & Fazliddinovna, B. M. (2022). Morphofunctional State of The Reproductive System in Mature Intact Rats in the Arid Zone. *Central Asian Journal of Medical and Natural Science*, 3(5), 511-516.
38. Mamatkulovna, V. A., Sultonovich, B. K., Abdusalomovna, J. F., Tagirovna, M. Z., & Fazliddinovna, B. M. (2021). Nematodofauna of Retain Plants and Their Seasonal Dynamics. *Annals of the Romanian Society for Cell Biology*, 5455-5462.
39. Karabaev, A., & Bobokandova, M. (2022). REACTIVITY OF THE REPRODUCTIVE SYSTEM IN MATURE INTACT RATS IN THE ARID ZONE. *International Bulletin of Medical Sciences and Clinical Research*, 2(10), 50-55.
40. Gadaevich, K. A., Baxtiyorovich, N. P., Mardikulovich, U. G., & Fazliddinovna, B. M. (2021). Reactivity of the supraoptic, arcuate nucleus of the hypothalamus and the B-and D-basophilic cells of the adenohypophysis in the early postreanimation period. *European Journal of Molecular & Clinical Medicine*, 8(3), 954-957.
41. Farrukh S. TREATMENT OF MYOCARDIAL INFARCTION AND FIRST AID." science and Innovation" International Scientific Journal. ISSN: 2181-3337, 1 (3), 317–320. – 2022.
42. Shernazarov F. TYPES OF HEMORRHAGIC DISEASES //CHANGES IN NEWBOENS, THEIR EARLY DIAGNOSIS.–2022.
43. Shernazarov F. F. CONGENITAL HEART DISEASE-CAUSES, CLASSIFICATION, DIAGNOSIS, TREATMENT, COMPLICATIONS, CONSEQUENCES //Eurasian Journal of Medical and Natural Sciences. – 2022. – T. 2. – №. 3. – C. 84-89.
44. Shernazarov F. MICROCIRCULATION DISORDERS IN THE VASCULAR SYSTEM OF THE BULBAR CONJUNCTIVA IN THE INITIAL



- MANIFESTATIONS OF CEREBRAL BLOOD SUPPLY DEFICIENCY. – 2022.
45. F. Shernazarov THE PROBLEM OF INSOMNIA CAUSES OF SLEEP DISORDER, REMEDIES AT HOME // SAI. 2023. №D1. URL: <https://cyberleninka.ru/article/n/the-problem-of-insomnia-causes-of-sleep-disorder-remedies-at-home> (дата обращения: 11.02.2023).
46. F. Shernazarov HYMORITIS SYMPTOMS, TREATMENT, METHODS OF FOLK MEDICINE, PREVENTION // SAI. 2023. №D1. URL: <https://cyberleninka.ru/article/n/hymoritis-symptoms-treatment-methods-of-folk-medicine-prevention> (дата обращения: 11.02.2023).
47. I. Shernazarov, F. Shernazarov NATIONAL-CULTURAL FEATURES IN THE TRANSLATION PROCESS // SAI. 2023. №B1. URL: <https://cyberleninka.ru/article/n/national-cultural-features-in-the-translation-process> (дата обращения: 11.02.2023).
48. I. Shernazarov, F. Shernazarov PROBLEMS OF TRANSLATION OF FEATURES RELATED TO THE WAY OF LIFE OF PEOPLES // SAI. 2023. №B1. URL: <https://cyberleninka.ru/article/n/problems-of-translation-of-features-related-to-the-way-of-life-of-peoples> (дата обращения: 11.02.2023).
49. Shernazarov F. GENETIC MARKERS FOR THE DEVELOPMENT OF DIABETIC RETINOPATHY //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 919-923.
50. Madaminov M. et al. CAUSES, SYMPTOMS, DIAGNOSIS AND TREATMENT OF KIDNEY STONES (UROLITHIASIS) //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 760-765.
51. Shernazarov F. SIGNIFICANCE OF ENDOTHELIAL DYSFUNCTION IN THE DEVELOPMENT OF RETINOPATHY IN PATIENTS WITH AH AND WAYS OF ITS CORRECTION //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 101-113.
52. Shernazarov F. THE ROLE OF C-REACTIVE PROTEIN IN THE PATHOGENESIS OF VISUAL VASCULAR DISEASES IN PATIENTS WITH ARTERIAL HYPERTENSION //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 114-121.
53. et al. COMBINED DENTAL AND EYE PATHOLOGY //Science and Innovation. – 2022. – Т. 1. – №. 8. – С. 91-100.
54. Farhod o'g'li S. F. GASTRIT—SABABLARI, ALOMATLARI, TASHXISLASH, DAVOLASH, DORILAR, ASORATLARI, OLDINI OLISH //Лучший инноватор в области науки. – 2022. – Т. 1. – №. 1. – С. 103-107.
55. F. Shernazarov SYMPTOMS OF HYMORITIS, TREATMENT, METHODS OF FOLK MEDICINE, PREVENTION // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/symptoms-of-hymoritis-treatment-methods-of-folk-medicine-prevention> (дата обращения: 11.02.2023).
56. Shernazarov F. WHITE TONGUE OR FORMATION OF WHITE EYES CAUSES, METHODS OF TREATMENT //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 766-770.
57. F. Shernazarov SORE THROAT IN ADULTS AND CHILDREN, SYMPTOMS, CAUSES, TREATMENT, TIPS // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/sore-throat-in-adults-and-children-symptoms-causes-treatment-tips> (дата обращения: 11.02.2023).
58. F. Shernazarov FLU SYMPTOMS, FORM, CAUSES, DIAGNOSIS, TREATMENT AND PREVENTION // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/flu-symptoms-form-causes-diagnosis-treatment-and-prevention> (дата обращения: 11.02.2023).
59. , F. Shernazarov ACUTE TONSILLITIS (ANGINA) CAUSES, COMPLICATIONS, DIAGNOSIS, TREATMENT, PREVENTION // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/acute-tonsillitis-angina-causes-complications-diagnosis-treatment-prevention> (дата обращения: 11.02.2023).
60. F. Shernazarov BREAST CANCER DETECTION METHODS, SYMPTOMS, CAUSES, TREATMENT // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/breast-cancer-detection-methods-symptoms-causes-treatment> (дата обращения: 11.02.2023).
61. F. Shernazarov TINTING IN THE EAR CAUSES, DEVELOPMENT, TREATMENT AND PREVENTION OF NOISE IN THE EAR // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/tinting-in-the-ear-causes-development-treatment-and-prevention-of-noise-in-the-ear> (дата обращения: 11.02.2023).
62. F. Shernazarov CAUSES, CONSEQUENCES, DIAGNOSIS AND TREATMENT OF LONG-SHORT LEGS // SAI. 2022. №D8. URL:



- <https://cyberleninka.ru/article/n/causes-consequences-diagnosis-and-treatment-of-long-short-legs> (дата обращения: 11.02.2023).
63. F. Shernazarov NEUROSE CAUSES AND MECHANISMS OF DEVELOPMENT, SYMPTOMS, TREATMENT, PREVENTION // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/neurose-causes-and-mechanisms-of-development-symptoms-treatment-prevention> (дата обращения: 11.02.2023).
64. F. Shernazarov INSOMNIA PROBLEM CAUSES OF SLEEP DISORDER, HELP MEASURES AT HOME // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/insomnia-problem-causes-of-sleep-disorder-help-measures-at-home> (дата обращения: 11.02.2023).
65. Farrukh Shernazarov, MICROCIRCULATION DISORDERS IN THE VASCULAR SYSTEM OF THE BULBAR CONJUNCTIVA IN THE INITIAL MANIFESTATIONS OF CEREBRAL BLOOD SUPPLY DEFICIENCY // SAI. 2022. №Special Issue 2. URL: <https://cyberleninka.ru/article/n/microcirculation-disorders-in-the-vascular-system-of-the-bulbar-conjunctiva-in-the-initial-manifestations-of-cerebral-blood-supply> (дата обращения: 11.02.2023).
66. F. Shernazarov ЗНАЧЕНИЕ ДИСФУНКЦИИ ЭНДОТЕЛИЯ В РАЗВИТИЕ РЕТИНОПАТИИ У БОЛЬНЫХ АГ И ПУТИ ЕГО КОРРЕКЦИИ // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/znachenie-disfunktsii-endoteliya-v-razvitie-retinopatii-u-bolnyh-ag-i-puti-ego-korreksii> (дата обращения: 11.02.2023).
67. F. Shernazarov СОЧЕТАННАЯ СТОМАТОЛОГИЧЕСКАЯ И ГЛАЗНАЯ ПАТОЛОГИЯ // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/sochetannaya-stomatologicheskaya-i-glaznaya-patologiya> (дата обращения: 11.02.2023).
68. F. Shernazarov РОЛЬ С-РЕАКТИВНОГО БЕЛКА В ПАТОГЕНЕЗЕ СОСУДИСТЫХ ЗАБОЛЕВАНИЙ ОРГАНА ЗРЕНИЯ У БОЛЬНЫХ АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИЕЙ // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/rol-s-reaktivnogo-belka-v-patogeneze-sosudistykh-zabolevaniy-organa-zreniya-u-bolnyh-arterialnoy-gipertenziey> (дата обращения: 11.02.2023).
69. F. Shernazarov .CAUSES, SYMPTOMS, APPEARANCE, TREATMENT OF VARICOSE VEINS // SAI. 2022. №D7. URL: <https://cyberleninka.ru/article/n/causes-symptoms-appearance-treatment-of-varicose-veins> (дата обращения: 11.02.2023). F. Shernazarov, J. Tohirova, D. Jalalova TYPES OF HEMORRHAGIC DISEASES, CHANGES IN NEWBOENS, THEIR EARLY DIAGNOSIS // SAI. 2022. №D5. URL: <https://cyberleninka.ru/article/n/types-of-hemorrhagic-diseases-changes-in-newboens-their-early-diagnosis> (дата обращения: 11.02.2023).
70. F. SheF. Shernazarov THE PROBLEM OF INSOMNIA CAUSES OF SLEEP DISOM. Madaminov, F. Shernazarov TINTING IN THE EM. Madaminov, F. Shernazarov CAUSES, CONSEQUENCES, DIAGNOSIS AND TREATMENT OF LONG-SHORT LEGS // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/causes-consequences-diagnosis-and-treatment-of-long-short-legs> (дата обращения: 11.02.2023).AR CAUSES, DEVELOPMENT, TREATMENT AND PREVENTION OF NOISE IN THE EAR // SAI. 2022. №D8. URL: <https://cyberleninka.ru/article/n/tinting-in-the-ear-causes-development-treatment-and-prevention-of-noise-in-the-ear> (дата обращения: 11.02.2023).RDER, REMEDIES AT HOME // SAI. 2023. №D1. URL: <https://cyberleninka.ru/article/n/the-problem-of-insomnia-causes-of-sleep-disorder-remedies-at-home> (дата обращения: 11.02.2023).rnazarov THE PROBLEM OF INSOMNIA CAUSES OF SLEEP DISORDER, REMEDIES AT HOME // SAI. 2023. №D1. URL: <https://cyberleninka.ru/article/n/the-problem-of-insomnia-causes-of-sleep-disorder-remedies-at-home> (дата обращения: 11.02.2023).