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SENSITIZATION SPECTRUM OF ATOPIC ASTHMA AND RHINITIS.

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Annotation: The pathogenetic characteristic of atopic bronchial asthma (BA) is chronic allergic inflammation of the airways, initiated by contact with causally significant allergens. Identification of sensitization is a necessary condition for successful therapy of asthma, and the structure of sensitization may have regional characteristics.

Key words: Asthma is the most common chronic respiratory disease in children.

Introduction

Asthma is the most common chronic respiratory disease in children. Despite the variety of clinical manifestations, an invariable feature of the pathogenesis of asthma is chronic allergic inflammation of the respiratory tract, in the occurrence and progression of which contact with causative allergens is of exceptional importance [1–4]. In this regard, accurate identification of causally significant allergens in a particular patient is a necessary condition for the treatment of asthma and other allergic diseases. This, firstly, is associated with the task of creating a hypoallergenic environment, which is important both for preventing the formation of asthma and for minimizing the risk of exacerbations and progression of the disease. Secondly, verification of the spectrum of sensitization in patients with atopic asthma is necessary to determine the possibility of conducting allergen-specific immunotherapy (ASIT), an effective method of treating allergic diseases that affects the pathogenetic mechanisms underlying atopic asthma. Currently, ASIT is considered as an important component of complex treatment of asthma, which also includes environmental control and pharmacotherapy [2].

MATERIALS AND METHODS

A retrospective study of the results of skin tests in patients with asthma was performed based on an analysis of medical records. A total of 98 case histories of patients with atopic asthma aged from 3 to 17 years (average age 9.1±4.6), of which 69 boys and 29 girls, received treatment and examination, were analyzed. BA verification was carried out in accordance with existing domestic and international agreement documents. All children had a symptom complex characteristic of bronchial asthma. At the time of the examination, the children had no symptoms of exacerbation of the disease and did not receive antihistamines. The main criteria for exclusion from the study were the presence of fever and/or symptoms of a bacterial infection in the upper respiratory tract, including the presence of mucopurulent secretion in the nasal cavity.

RESULTS AND DISCUSSION

Sensitization to household allergens (house dust, library dust, house dust mite allergens) was detected in 71% (70/98) of patients, to epidermal allergens (cat hair, dog hair, horse dander, pillow feathers) - in 38% (37/98) patients, to pollen allergens (trees, cereals, weeds) in 72% (71/98) of the child (figure). The proportion of patients who had household sensitization and patients who had pollen sensitization was statistically significantly higher than the proportion of patients who had epidermal sensitization Z=31.98; p=0.01, respectively. At the same time, the proportions of patients who had household sensitization and those who had pollen sensitization were comparable. A combination of household (1), epidermal (2) and pollen (3) sensitization was detected in 24% (24/98) of children, a combination of sensitization to two groups of allergens in 35% (34/98) of patients, sensitization to one of the groups of allergens in 41% (40/98) of patients. Thus, in 59% (58/98) of patients with asthma, sensitization was of a combined nature. Positive skin tests to household allergens were observed in 71% (70/98) of the examined patients, of which 56% (55/98) of children had positive reactions with house dust allergens (HDA). Moreover, in 78% (43/55) of patients the reaction was assessed as weakly positive, in 15% (8/55) of patients as positive, in 3.6% (2/55) of patients as strongly positive, and in 3.6% (2/55) skin test results were considered hyperthermic. The proportion of patients with a sharply positive and hyperergic reaction was 4% (4/98) of the number of patients examined. Thus, sensitization in general to ADP is typical for children with asthma, but there is a predominance of weakly positive reactions during skin testing of these children.

When performing skin tests with library dust (LD) allergens, a positive reaction was detected in 24% (24/98) of patients. Of these, in 71% (17/24) they were regarded as weakly positive, in 29% (7/24) of patients - as positive reactions.

Positive reactions with house dust mite allergens occurred in 42% (41/98) of patients, of which in 90% (37/41) children the reactions were assessed as weakly positive, in 7% (3/41) as positive resident and in 2% (1/41) of patients as sharply positive. When analyzing the results of skin tests with epidermal allergens (pillow feather, horse dander, cat hair and dog hair), sensitization to one or more of the listed allergens was detected in 38% (37/98) of patients with atopic BA. Moreover, 46% (17/37) of these patients had positive skin tests with one, 38% (14/37) of patients with two, 13% (5/37) of patients with three, and 3% (1/37) patients with all four specified epidermal allergens.

The most common condition was sensitization to cat hair allergens, which was detected in 30% (29/98) of patients. Of these, in 83% (24/29) children the reactions were assessed as weakly positive, in 10% (3/29) patients as positive, in 6% (2/29) patients as strongly positive and/or hyperergic. Skin tests with pillow feather allergens revealed sensitization to these allergens in 15% (15/98) of patients, in 73% (11/15) of them the reaction was assessed as weakly positive, in 26% (4/ 15) patients as positive and/or hyperergic. Sensitization to horse dander antigens was detected in 16% (16/98) of patients, in 50% (8/16) of them the reaction was assessed as weakly positive, in 38% (6/16) of patients as positive and in 12% (2/16) – as hyperergic.

When performing skin tests with dog hair allergens, positive reactions occurred in 6 out of 98 patients examined, of which weakly positive reactions were detected in 83% (5/6) of patients, positive reactions – in 17% (1/6) of patients. The prevalence and severity of sensitization to allergens of cat hair, horse dander, and feather pillows were comparable. The proportion of patients with sensitization to dog hair and the severity of this sensitization were significantly lower than for other epidermal allergens. Considering that the epidermal allergens listed above are a set of household allergens, complementing the spectrum of household allergens, it becomes obvious that the cumulative consideration of sensitization to household and epidermal allergens contributes to a more complete understanding of the impact of the housing ecology on the body of a patient

with asthma. Allergies to household or epidermal allergens or a combination thereof were detected in 74% (73/98) of those examined. Moreover, a combination of household and epidermal allergies occurred in 35% (34/98) of children. The high prevalence of household and epidermal sensitization among patients with atopic asthma indicates the need for a careful approach to the development and implementation of measures to improve the ecology of housing in order to reduce the trigger load in patients with asthma.

CONCLUSION

This indicates a potentially wide range of triggers that can both provoke an exacerbation of the atopic process and maintain allergic inflammation in the shock organ. The results of the study confirm, on the one hand, the need to improve work on creating a hypoallergenic environment in those rooms where children are often present. These measures are relevant not only for residential premises, but also for kindergartens and schools, since the prevalence of bronchial asthma in the child population is quite high. On the other hand, the data obtained indicate the potential feasibility of widespread use of ASIT in the treatment of patients with atopic asthma, taking into account the sensitization identified in these patients.

REFERENCES:

1. Modern view on the development of bronchial asthma in children / I.I. Balabolkin, V.A. Bulgakova, I.E. Smirnov et al. // Pediatrics. Journal named after G.N. Speransky. 2014. T. 93, no. 3. pp. 92–100.
2. Eliseeva T.I., Balabolkin I.I. Modern technologies for controlling bronchial asthma in children: a review. // Modern technologies in medicine. 2015. No. 2. pp. 168–184.
3. Balabolkin I.I., Bulgakova V.A. Bronchial asthma in children. M.: Medical Information Agency, 2015. 144 p.
4. Allergen-specific immunotherapy in children: current state of the issue / E.A. Vishneva, L.S. Namazova-Baranova, A.A. Alekseeva et al. // Pediatric pharmacology. 2016. T. 13, no. 4. pp. 404–408.
5. Aslonova, I., Erkinova, N. E., & Tosheva, K. (2019). The prevalence of chronic pyelonephritis in women with disturbed tolerance for glucose. International Journal of Pharmaceutical Research, 11(4), 866-868. doi:10.31838/ijpr/2019.11.04.119Vorobiev P.A. Anemic syndrome in clinical practice. M .: 2001.188s.
6. Aslonova.I./Zh.AshurovaN.G.TukhtaevaKh.Kh..Factoririsca jelezodefisitnoy anemii sredi jenscogo pola//Terapevtichesciy vestnik Uzbecistana.-2019.-№2.-C.-81
7. Ibodat Aslonova, Ozoda Xodieva. Сравнительная оценка эффективности применения интерактивных методов обучения.
8. Aslonova IJ,KhazratovUKh,Erkinova NE,Tosheva HB THE PREVALENCE OF CHRONIC PYELONEPHRITIS IN WOMEN WITH DISTURBED TOLERANCE FOR GLUCOSE Imhpact factor 2019 November., C. 81-85Asian Research Journals
9. Aslonova Ibodat Jabborovna A study of Assessment of Iron deficiency anemiya among;An International Multidisciplinary Research jornal vol12;may2022
10. Ibodat Aslonova Ozoda Hodieva Hamshiralic Isi fanini O'qitishda interfaol usullarning qo'lanishi samaradorligini baholash PEDAG IC MAHORATIlmiy-nazariy va metodik Jurnal 6-son (2021-yii,dekabr)70-75,b ет
11. Idodat Jabborovna Aslonova Assesment Of the Insidence of Iron Deficiency Anemia Among Wjmen Central Sian Journal of medical and natural sciences Volume; 03 Issue; 04 Jul*-Aug 2022Issn:2660-4159

12. Ibodat Jbbouodna Aclonova ,Ozoda Ibragimovna Khodieva Evalution of the effectiveness of nevulizer therapy in reflux-associated asthma Europes Journal of Psychlogy,2021 08/ 22 P 289-292 .
13. Tosheva, K. B., Erkinova, N. E., Khalilova, F. A., Gadaev, A. G., & Djuraeva, N. O. (2020). Comorbid states in patients with chronic heart failure. Regional level of the problem (Preliminary Study). Journal of Cardiovascular Disease Research, 11(2), 59-65.
14. . Khotamova, R. S. (2022). Monitoring of Kidney Fibrosis Changes in Patients with Chronic Heart Failure. Central Asian Journal of Medical and Natural Science, 3(4), 199-204.
15. . Bekmurodovna, T. K., & Gadaevich, G. A. (2021). Dynamics of Renal Fibrosis Markers on the Basis of Complex Treatment in Chronic Heart Failure with Anemia
16. . Khalilova, F., Tosheva, K., Gadaev, A., Erkinova, N., & Djuraeva, N. (2020). COMORBIDE CASES IN CARDIORENAL SYNDROME AND ITS IMPACT ON PATIENTS'QUALITY OF LIFE. InterConf.
17. Khotamova R. S. Frequency of Comorbid Conditions in Chronic Heart Failure //Middle European Scientific Bulletin. – 2022. – Т. 24. – С. 260-264. Ашурова Н.Г. (2016). О натуре лекарственных средств в древневосточной медицине. Биология и интегративная медицина, (2), 189-199.
18. Khotamova R.S. The Role of Folk Medicine in the Treatment of Patients with Cardiovascular Diseases // Central Asian Journal of Medical and Natural Science (ISSN:2660-4159) Oct. 14, 2021. Page: 280-283.
19. Сулаймоновна К.Р. ОЦЕНКА ДИСФУНКЦИИ ПОЧЕК И ВЛИЯНИЕ ГЛИФЛОЗИНА НА ХРОНИЧЕСКУЮ СЕРДЕЧНУЮ НЕДОСТАТОЧНОСТЬ, РАЗВИВАЮЩУЮСЯ НА ПОЧВЕ РЕВМАТИЧЕСКУЮ ПОБОЛЕЗНЬ СЕРДЦА //TA'ЛИМ ВА РИВОЙЛАНИШ ТАХЛИЛИ ОНЛАЙН ИЛМИЙ ЖУРНАЛИ. – 2023. – Т. 3. – №. 5. – С. 536-542.
20. Хотамова Р. С. ОЦЕНКА ПОЧЕЧНОЙ ДИСФУНКЦИИ И ВЛИЯНИЕ ГЛИФЛОЗИНОВ НА ХРОНИЧЕСКУЮ СЕРДЕЧНУЮ НЕДОСТАТОЧНОСТЬ, РАЗВИВШУЮСЯ НА ПОЧВЕ РЕВМАТИЧЕСКИХ ПОРОКОВ СЕРДЦА //Miasto Przyszłości. – 2023. – Т. 35. – С. 357-363.
21. Хотамова Р. ОЦЕНКА ПОЧЕЧНОЙ ДИСФУНКЦИИ И ВЛИЯНИЕ ГЛИФЛОЗИНОВ НА ХРОНИЧЕСКУЮ СЕРДЕЧНУЮ НЕДОСТАТОЧНОСТЬ, РАЗВИВШУЮСЯ НА ПОЧВЕ РЕВМАТИЧЕСКИХ ПОРОКОВ СЕРДЦА //Евразийский журнал академических исследований. – 2022. – Т. 2. – №. 13. – С. 1536-1543.
22. Khazratov U. Kh., Tosheva H. B., Khalilova F. A. Studying the frequency of the symptoms of gastroesophageal reflux disease. “Current Issues of Science. Education and Inducation and Industry in Modem Research” 10-12 th. December 2020., Journal INX – ISSN No: 2581-4230. Page No.: 48-52
23. Хазратов У.Х., Нарзиев Ш.С., Эркинова Н.Э. Оценка эффективности ультразвуковой ингаляции при рефлюкс индуцированной астме// Терапевтический вестник Узбекистана -2019.- №3 .- С. 51-55.
24. Khazratov U.Kh., Tosheva Kh.B., Khalilova F.A. Studyng the frequency of the symptoms of gastroesofhageal reflukx disease. Proceedings of multidisciplinary International Scientific-Practical Conference “Current Issues of Science.Education and Inducation and Industry in Modem Research” 10-12 th. December 2020., Journal INX – ISSN No: 2581-4230.
25. Narziev Sh. S., Khazratov U.Kh., Tosheva Kh.B. Effectiveness of nebuliserotherapy inreflux-associated asthma. Asian Journal of Multidimensional Research 2021. April. Vol 10. P. 944-948.
26. Kh, K. U. Tosheva Kh. B., Khalilova FA Studyng the frequency of the symptoms of gastroesofhageal

reflukx disease. In *Proceedings of multidisciplinary International Scientific-Practical Conference "Current Issues of Science. Education and Inducation and Industry in Modem Research* (pp. 10-12).

27. Bekmurodovna, T. K., & Gadaevich, G. A. (2021). Dynamics of Renal Fibrosis Markers on the Basis of Complex Treatment in Chronic Heart Failure with Anemia.
28. Tosheva, K. B., Erkinova, N. E., Khalilova, F. A., Gadaev, A. G., & Djuraeva, N. O. (2020). Comorbid states in patients with chronic heart failure. Regional level of the problem (Preliminary Study). *Journal of Cardiovascular Disease Research*, *11*(2), 59-65.
29. Khazratov, U. X., Narziev, S. S., & Tosheva, B. K. (2021). Effectiveness of nebuliserotherapy in reflux-associated asthma. *ASIAN JOURNAL OF MULTIDIMENSIONAL RESEARCH*, *10*(4), 944-948.
30. Гадаев, А. Г., Турақулов, Р. И., Курбонов, А. К., Тошева, Х. Б., Эркинова, Н. А., Халилова, Ф. А., & Джураева, Н. Д. (2019). Сурункали юрак етишмовчилиги камқонлик билан кечганда даволаш тамойиллари.
31. Гадаев, А. Г., Халимова, Х. Х., Элмурадов, Ф. Х., Тошева, Х. Б., & Халилова, Ф. А. (2018). Роль некоторых маркеров в оценке течения Хронического кардиоренального синдрома.
32. Тошева, Х. Б., & Кенжаева, З. О. (2014). Пропаганда здорового образа жизни в селе как механизм сохранения здоровья сельского населения.
33. Bekmurodovna, T. K., Erkinovna, E. N., Gadaevich, G. A., Oripovna, D. N., & Abdujalolovna, K. F. (2020). Comorbid States in Patients with Chronic Heart Failure. Regional Level of the Problem (Preliminary Study). *Journal of Cardiovascular Disease Research*, *11*(2), 59-65.
34. Клычева, М. А., Тошева, Х. Б., Халилова, Ф. А., & Нуритов, А. И. (2015). Роль психологии семейного воспитания в формировании поведенческих реакций у подростков. *Наука молодых–Eruditio Juvenium*, (2), 75-79.
35. Хазратов, У. Х. (2022). Особенности Течения Бронхиальной Астмы В Условиях Жаркого Климата. *Central Asian Journal of Medical and Natural Science*, *3*(4), 227-233.
36. Khotamova, R. S. (2022). Monitoring of Kidney Fibrosis Changes in Patients with Chronic Heart Failure. *Central Asian Journal of Medical and Natural Science*, *3*(4), 199-204.
37. Bekmurodovna, T. K., & Chorievich, Z. A. (2021). Study of frequency indicators of comorbid states at different functional classes of heart failure. *ACADEMICIA: An International Multidisciplinary Research Journal*, *11*(3), 2556-2560.
38. Тошева, Х., & Кайимова, Д. И. (2017). Метаболик синдромнинг ривожланишида ирсиятнинг ахамияти. *Биология и интегративная медицина*, *1*, 132.
39. Ашурова, Н. Г. (2022). Значение Немедикаментозной Коррекции Нарушений Углеводного Обмена. *Central Asian Journal of Medical and Natural Science*, *3*(5), 10-22.
40. Джураева, Н. О. (2022). Оценка Кардиореспираторных Показателей На Основе Комплексное Лечение Хронической Обструктивной Болезни Легких Заболевание С Легочной Гипертензией. *Central Asian Journal of Medical and Natural Science*, *3*(5), 23-30.
41. Khalilova, F., Tosheva, K., Gadaev, A., Erkinova, N., & Djuraeva, N. (2020). COMORBIDE CASES IN CARDIORENAL SYNDROME AND ITS IMPACT ON PATIENTS'QUALITY OF LIFE. *InterConf*.
42. Тошева, Х., Хазратов, У., & Нарзиев, Ш. (2020). РОЛИ ДИСФУНКЦИИ ПОЧЕК В РАЗВИТИИ КОМОРБИДНОСТИ У БОЛЬНЫХ С ХРОНИЧЕСКОЙ СЕРДЕЧНОЙ НЕДОСТАТОЧНОСТЬЮ. *Журнал вестник врача*, *1*(3), 93-96.

43. Гафуровна А.Н. (2022). Симуляционное обучение как метод современных технологий в медицинской практике студентов медицинских вузов. Среднеевропейский научный бюллетень , 24 , 276-280.
44. Ашурова Нодира Гафуровна, Эркинова Нигора Эркиновна РОЛЬ СИМУЛЯЦИОННОГО ОБУЧЕНИЯ В ФОРМИРОВАНИИ ПРОФЕССИОНАЛЬНОЙ КОМПИТЕНТНОСТИ СТУДЕНТОВ МЕДИЦИНСКИХ ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЙ // ORIENSS. 2021. №5.
45. Ашурова Н.Г. (2016). О натуре лекарственных средств в древневосточной медицине. Биология и интегративная медицина, (2), 189-199.
46. Ашурова Нодира Гафуровна (2020). Прополис и современные медикаменты. Биология и интегративная медицина, (2 (42)), 140-156.
47. Ашурова Нодира Гафуровна, & Эркинова Нигора Эркиновна (2021). РОЛЬ СИМУЛЯЦИОННОГО ОБУЧЕНИЯ В ФОРМИРОВАНИИ ПРОФЕССИОНАЛЬНОЙ КОМПИТЕНТНОСТИ СТУДЕНТОВ МЕДИЦИНСКИХ ВЫСШИХ УЧЕБНЫХ ЗАВЕДЕНИЙ. Oriental renaissance: Innovative, educational, natural and social sciences, 1 (5), 234-242.
48. Ашурова Нодира Гафуровна и Хазифа Хикматовна Тухтаева. (2021). РОЛЬ СИМУЛЯЦИОННОГО ОБУЧЕНИЯ В ФОРМИРОВАНИИ ПРОФЕССИОНАЛЬНОЙ КОМПЕТЕНЦИИ СТУДЕНТОВ МЕДИЦИНСКОГО ВУЗА. Academicia Globe: Inderscience Research , 2 (6), 303–307.
49. Khotamova R. S. Frequency of Comorbid Conditions in Chronic Heart Failure //Middle European Scientific Bulletin. – 2022. – Т. 24. – С. 260-264.
50. Khotamova R.S. The Role of Folk Medicine in the Treatment of Patients with Cardiovascular Diseases // Central Asian Journal of Medical and Natural Science (ISSN:2660-4159) Oct. 14, 2021. Page: 280-283.
51. Orifovna, D. N. (2021). Comparative Characteristic of the use of Glucose-Containing Drugs in A Complex and Separate with Diabetes Mellitus Associated with Chronic Renal Pathology. CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES, 393-396.
52. K.F. Abdujalolovna. Assessment of Intracardiac Hemodynamics and Electrolyte Balance in Various Hemodynamic Types of Chronic Heart Failure Accompanied By Anemia // European Multidisciplinary Journal of Modern Science 7,63-71, 2022
53. Gadaev A.G., Xalilova F.A., Elmuradov F.X., Tosheva X.B. Structural and functional changes in the kidneys and heart in patients with XSN. Therapy Bulletin of Uzbekistan. 2018. -1 - S. 100-104.
54. K.F. Abdujalolovna. Assessment of Intracardiac Hemodynamics and Electrolyte Balance in Various Hemodynamic Types of Chronic Heart Failure Accompanied By Anemia // European Multidisciplinary Journal of Modern Science 7,63-71, 2022
55. Khalilova F. A. et al. COMORBIDE CASES IN CARDIORENAL SYNDROME AND ITS IMPACT ON PATIENTS'QUALITY OF LIFE //EDITOR COORDINATOR. – 2020. – С. 741.
56. Aslonova I. J. et al. The prevalence of chronic pyelonephritis in women with disturbed tolerance for glucose //Asian Journal of Multidimensional Research (AJMR). – 2019. – Т. 8. – №. 11. – С. 81-85.
57. Aslonova I. Z., Erkinova N. E., Tosheva K. B. The prevalence of chronic pyelonephritis in women with disturbed tolerance for glucose //International Journal of Pharmaceutical Research. – 2019. – Т. 11. – №. 4. – С. 866-868.

58. Erkinova, N. (2021). OBSERVATION OF ALBUMINURIA IN CHRONIC HEART FAILURE AND SOME OF ITS CLINICAL FEATURES. Galaxy International Interdisciplinary Research Journal, 9(05), 442-446.
59. Nigora, E., & Nargiza, X. (2021). OBSERVATIONS, CLINICAL FEATURES OF ALBUMINURIA WITH RENAL CHANGES IN CHRONIC HEART FAILURE. Academicia Globe: Inderscience Research, 2(05), 335-339.
60. Erkinovna, E. N., & Ulugbekovna, O. A. (2021, August). THE COURSE OF COMORBID CONDITIONS IN DIFFERENT FUNCTIONAL CLASSES OF CHRONIC HEART FAILURE. In INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY RESEARCH AND INNOVATIVE TECHNOLOGIES (Vol. 1, pp. 131-134).
61. COMPARATIVE ANALYSIS OF CERTAIN LABORATORY AND FUNCTIONAL INDICATORS IN PATIENTS WITH DIABETES AND WITHOUT CHRONIC HEART FAILURE. NO Djuraeva, AG Gadaev International Conference of Education, Research and Innovation 1 (2), 17-20
62. Orifovna, D. N., Gadaevich, G. A., & Ismatullaevich, T. R. (2023). THE ROLE OF TRANSFORMING GROWTH FACTOR-β1 IN THE DEVELOPMENT OF PROCESSES OF FIBROSIS IN THE HEART AND KIDNEY IN PATIENTS WITH DIABETES WITH CHRONIC HEART FAILURE. Art of Medicine. International Medical Scientific Journal, 3(1).
63. Bekmurodovna, T. K. (2023). CLINICAL-FUNCTIONAL PARAMETERS OF BRONCHIAL ASTHMA. TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI, 3(5), 507-513.
64. Тошева, Х. Б. (2023). КЛИНИЧЕСКИЕ ПОКАЗАТЕЛИ БРОНХИАЛЬНОЙ АСТМЫ В УСЛОВИЯХ ЖАРКОГО КЛИМАТА. TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI, 3(5), 498-506.
65. Тошева, Х. Б. (2022). КЛИНИКО-ФУНКЦИОНАЛЬНЫЕ ПОКАЗАТЕЛИ БРОНХИАЛЬНОЙ АСТМЫ В УСЛОВИЯХ ЖАРКОГО КЛИМАТА. BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI, 2(12), 756-763.
66. Tosheva, K. B. (2022). Significance of Cystatin-S and Galectin-3 Levels in Patients with Chronic Heart Failure. Central Asian Journal of Medical and Natural Science, 3(4), 189-194.
67. Gadaevich, G. A., Bekmurodovna, T. K., Abdujalolovna, X. F., Erkinovna, E. N., & Orifovna, D. N. (2021). EVALUATION OF THE EFFECTIVENESS OF TREATMENT IN CHRONIC HEART FAILURE WITH ANEMIA. EDITOR COORDINATOR, 701.
68. Гадаев, А. Г., Тошева, Х. Б., Элмурадов, Ф. Х., & Халилова, Ф. А. (2018). Фиброзные изменение в почках у больных ХСН. Терапевтический вестник. Ташкент, 2, 86-90.
69. Khazratov, U. X., Narziev, S. S., & Tosheva, B. K. (2021). Effectiveness of nebuliserotherapy in reflux-associated asthma. ASIAN JOURNAL OF MULTIDIMENSIONAL RESEARCH, 10(4), 944-948.
70. Bekmurodovna, T. K. (2023). CLINICAL AND FUNCTIONAL PARAMETERS OF BRONCHIAL ASTHMA IN HOT CLIMATE CONDITIONS. Miasto Przyszłości, 35, 333-339.