INTRANASAL IMMUNOTHERAPY OF ALLERGIC RHINITIS

Zakirova M.R., Qobiljonova Sh.R.,
Imamova A.O.

Annotation. Allergic diseases attract more and more attention of doctors of different specialties every year. Despite the fact that allergic diseases have been known to man for more than two and a half thousand years, in the modern world the problems connected with questions of diagnostics, therapy and prevention of allergopathology remain very urgent. In the last decades the problem of allergology has assumed the scale of a global medical and social problem. Allergy is called "disease of civilization". In highly developed countries the percentage of people suffering from allergies (mainly among the young population) is significantly higher than in developing countries. Environmental pollution by industrial waste7, unfavorable social conditions, increased consumption of various medications, intensive use of disinfectants at home and in production, use of pesticides and herbicides in agriculture, changes in food quality, use of genetically modified products — the combined effect of these factors on the modern human body1 creates conditions for high allergen loads. As additional studies have shown, over the past 30 years, the prevalence of allergic diseases has doubled everywhere every 10 years. At present, the problem of allergic rhinitis can be considered one of the most pressing. In terms of prevalence, medical and social significance, impact on health and quality of life of patients, AR ranks first among other allergic diseases [4, 46]. Over the past few decades, there has been a steady increase in the number of patients suffering from this pathology in European countries. In the structure of allergopathology, the proportion of AR is very high (60-70%).

At the beginning of the third millennium, the problem of cardiovascular diseases (CVD) came to the forefront in terms of relevance among all causes of morbidity and mortality. According to forecasts of the World Health Organization (WHO), by 2030 about 23.6 million people will die from CVD, mainly from heart disease and stroke, which are the main causes of death among people of working age. Heart disease, like many other chronic non-communicable diseases, develops slowly and "unnoticed". In the structure of mortality of the adult population, the share of complications of CVD (ischemic heart disease (IHD) and stroke) today is 40-60%. There is a tendency for these diseases to "rejuvenate" - there are frequent cases when myocardial infarction (MI) is observed in 2-5-year-old people, which is the most important medical and social problem. One of the important reasons for the increase in the prevalence of CVD is the presence of a number of concomitant diseases. In particular, an increased risk of developing coronary heart disease is associated with the presence of metabolic disorders and diabetes mellitus (DM) in patients. Modern studies have established common mechanisms of the pathological process of DM and CVD formation, which allows us to consider DM as an endocrinological equivalent of coronary heart disease. Interest in early disorders of carbohydrate metabolism has

increased significantly in recent years. Prediabetes is an intermediate stage between normal glucose tolerance and type 2 DM. The annual conversion of impaired glucose tolerance (IGT) to type 2 DM, according to prospective studies, is 4-8%. The development of algorithms and accessible tools for identifying the risk of developing DM in individuals with cardiovascular risk is an urgent problem in modern cardiology.

Objective of the study. To study the comparative clinical efficacy, safety and anti-inflammatory effect of the domestic drug Ruzam (nasal drops) and combined therapy with Ruzam (nasal drops) and intranasal specific immunotherapy with allergoids in the treatment of pollen allergic rhinitis of intermittent and persistent course.

Research objectives. To evaluate the clinical efficacy, anti-allergic anti-inflammatory effect of the drug Ruzam (nasal drops) in the treatment of pollen allergic rhinitis: intermittent and persistent course. Compare the clinical efficacy and safety of intranasal monotherapy with Ruzam drops and allergoids.

According to the results of epidemiological studies, AR affects about 20% of the population of all age groups. The prevalence of latologic diseases in most European countries ranges from 10 to 32%, in the UK - 30%, in Sweden - 28%, in New Zealand and Australia - 40%, in South Africa - 17%. In Russia, up to 25% of the population has symptoms of rhinitis. In the USA, more than 35 million residents (27.89-39.50) seek help with symptoms of AR annually. AR limits patients in physical, psychological and social aspects of life. AR is the cause of decreased quality of life. This is often due to the fact that rhinitis often precedes the development of bronchial asthma (BA) (in 32-49% of patients), worsens its course, significantly increasing the number of calls to emergency medical care [115, 191, 207, 214]. Modern therapy of AR involves the elimination of etiologically significant allergens, allergen-specific immunotherapy (ASIT), pharmacotherapy and patient education. ASIT occupies a leading position in the treatment of atopic diseases. However, certain inconveniences associated with frequent visits to an allergist, the possibility of developing systemic side effects, and the existing group of people for whom ASIT is contraindicated are a prerequisite for finding new effective and safe means for the treatment of AR.

In this regard, it seems relevant to use the polypeptide drug Ruzam (nasal drops) in the therapy of AR, obtained from a thermophilic active strain of Staphylococcus aureus and possessing antiallergic and anti-inflammatory action (41,81).

Conclusions. Intranasal therapy with the drug Ruzam is comparable in effectiveness to intranasal allergen-specific immunotherapy, which is confirmed by a decrease in the total index of symptoms of allergic rhinoconjunctivitis from 94.68±5.92 to 48.47+4.85 points ($p<0.05$), an increase in the threshold of specific nasal reactivity (no statistically significant differences were found between the two methods, $p<0.05$). Combined therapy with Ruzam and allergoids is an effective method of treating* allergic rhinoconjunctivitis, which is confirmed by a decrease in the total index of symptoms of allergic rhinoconjunctivitis from 87.28+6.22' to 50.06+5.66 points ($p<0.05$), an increase in the threshold of specific nasal reactivity. However, the use of this method is not advisable due to the lack of statistically significant differences with monotherapy with Ruzam and allergoids. In all 3 treatment groups (1 - ISIT; 2 - Ruzam;

3 - ISIT+Ruzam) there was a reliable decrease in the threshold of bronchial reactivity to methacholine. In the first and second groups, the threshold of sensitivity to methacholine increased after treatment by 1.5 times, in the combination treatment group by 2 times compared to the initial values ($p<0.05$).

List of references:

1. Choi, J. W., Salomova, F. I., Razikova, I. S., Mirraximova, M. H., Ibragimova, S. A., & Yunusjanovna, N. N. (2020). The prevalence of symptoms of allergic diseasesin children residing in industrialregions of Uzbekistan. *International Journal of Psychosocial Rehabilitation*, *24*(4), 2105-2115.
2. DS, K. (2022). PREVALENCE OF ALLERGIC DISEASES IN CHILDREN UNDER HOT CLIMATIC CONDITIONS. In *Materials of International Scientific-Practical Conference.«Only English: Topical Issues of Healthcare*.
3. Ibodullaevna, S. F., Rustamovna, K. S., Gairatovna, A. D., & Abdurakhmonovna, S. H. (2022). PREVALENCE AND RISK FACTORS OF ALLERGIC DISEASES IN CHILDREN IN HOT CLIMATIC CONDITIONS. *Art of Medicine. International Medical Scientific Journal*, *2*(3).
4. Imamova, A. O., & Toshmatova, G. O. (2023). Protecting works and hygienic assessment of nutrition of preschool children in Tashkent. *European International Journal of Multidisciplinary Research and Management Studies*, *3*(02), 47-50.
5. Imamova, A. O., Salomova, F. I., Axmadalieva NO, N. D., Toshmatova, G. A., & Sharipova, S. A. (2022). Ways to optimize the formation of the principles of a healthy lifestyle of children. *American Journal of Medicine and Medical Sciences*, *12*(6), 606-608.
6. Jalolov, N. N., & Imamova, A. O. (2023). The Role of Nutrition in the Management of Chronic Hepatitis. *European International Journal of multidisciplinary research and management studies*, *3*(02), 28-34.
7. Jalolov, N. N., Sobirov, O. G., Kabilzhonova, S. R., & Imamova, A. O. (2023). The role of a healthy lifestyle in the prevention of myocardial infarction. *Neo Sci Peer Rev J*, *9*, 8-14.
8. Jalolov, N. N., Sultonov, E. Y., Imamova, A. O., & Oblokulov, A. G. (2023). Main factors of overweight and obesity in children. *Science Promotion*, *1*(2), 2-4.
9. Khobiljonova, S. H. THE ROLE OF SPORTS IN THE FORMATION OF A HEALTHY LIFESTYLE AMONG YOUNG PEOPLE Yuldasheva FU Tashkent Medical Academy, Uzbekistan Imamova AO.
10. Kobiljonova, S. R., & Jalolov, N. N. (2023). Reproductive and perinatal outcomes born by caesarean section.
11. Kobiljonova, S. R., Jalolov, N. N., Sharipova, S. A., & Mirsagatova, M. R. (2022). COMBINED SKIN AND RESPIRATORY MANIFESTATIONS OF FOOD ALLERGY IN CHILDREN.
12. Kobiljonova, S. R., Jalolov, N. N., Sharipova, S. A., & Tashmatova, G. A. (2023). Clinical and morphological features of gastroduodenitis in children with saline diathesis. *American Journal of Pedagogical and Educational Research*, *10*, 35-41.

13. Kobiljonova, S. R., Jalolov, N. N., Sharipova, S. A., & Tashmatova, G. A. (2023). Clinical and morphological features of gastroduodenitis in children with saline diathesis. *American Journal of Pedagogical and Educational Research*, *10*, 35-41.

14. Kobiljonova, S., Sultonov, E., Sultonova, D., Oblokulov, A., & Jalolov, N. (2023). CLINICAL MANIFESTATIONS OF GASTROINTESTINAL FOOD ALLERGY. *Евразийский журнал медицинских и естественных наук*, *3*(5), 142-148.

15. Niyazova, O. A., & Imamova, A. O. (2023). Improving the organization of the provision of medical services and the Digital environment. *European International Journal of Multidisciplinary Research and Management Studies*, *3*(02), 41-46.

16. Sadullayeva, X. A., Salomova, F. I., & Mirsagatova, M. R. (2023). Problems of Pollution of Reservoirs in the Conditions of Uzbekistan. *Miasto Przyszłości*, *33*, 102-106.

17. Salomova, F. I. (2022, November). Formation of the principles of a healthy lifestyle in preschool children. In *Uzbekistan-Japan International Conference «Energy-Earth-Environment-Engineering*.

18. Salomova, F. I. (2022, November). Problems of atmospheric air pollution in the Republic of Uzbekistan and the ways of their solution. In *Uzbekistan-Japan International Conference «Energy-Earth-Environment-Engineering*.

19. Salomova, F. I., Mirrakhimova, M. K., & Kobilzhonova, S. R. (2022). Influence of environmental factors on the development of atopic dermatitis in children. In *European journal of science archives conferences series*.

20. Salomova, F. I., Rakhimov, B. B., Jalolov, N. N., Sultonov, E. Y., & Oblakulov, A. G. (2023). Atmospheric air of the city of Navoi: quality assessment. *British Journal of Global Ecology and Sustainable Development*, *15*, 121-125.

21. Salomova, F. I., Sharipova, S. A., Toshmatova, G. O., Yarmukhamedova, N. F., Mirsagatova, M. R., & Akhmadalieva, N. O. (2020). Psychoemotional state of the universities' teaching staff in Uzbekistan. *Indian Journal of Forensic Medicine and Toxicology*, *14*(4), 7984-7994.

22. Salomova, F., Akhmadalieva, N., Sadullayeva Kh, A., Imamova, A., & Nigmatullayeva, D. Z. (2023). Hygienic characteristics of the social portrait, conditions and lifestyle of infectious diseases doctors. *JournalNX-A Multidisciplinary Peer Reviewed Journal*, *9*(2), 163-7.

23. Salomova, F., Sadullaeva, K., Samigova, N., & Sadirova, M. (2022). Study of regional features of dynamics of acute intestinal diseases in the Republic of Karakalpakstan (Livorno, Italy конф.). *Diss. Livorno, Italy*.

24. Salomova, F., Sadullayeva, H., Sherkuzieva, G., & Yarmuhamedova, N. F. (2020). State of atmospheric air in the republic of Uzbekistan. *Central Asian Journal of Medicine*, *2020*(1), 131-147.

25. ShR, K., Mirrakhimova, M. H., & Sadullaeva, H. A. (2022). Prevalence and risk factors of bronchial asthma in children. *Journal of Theoretical and Clinical Medicine*, *2*, 51-56.

26. Yarmukhamedova, N. F., Matkarimova, D. S., Bakieva, S. K., & Salomova, F. I. (2021). Features of the frequency of distribution of alleles and genotypes of polymorphisms of the gene Tnf-A (G-308a) in patients with rhinosinusitis and the assessment of their role in the development of this pathology. *International Journal of Health and Medical Sciences*, *4*(1), 164-168.

27. Yaxyoyevich, Z. S., & Husanovna, T. M. (2024). Chronic Liver Diseases And Humoral Factors Of Immunity.

28. Ахмадалиева, Н. О., Саломова, Ф. И., Садуллаева, Х. А., Шарипова, С. А., & Хабибуллаев, С. Ш. (2021). Заболеваемость преподавательского состава ВУЗа технического профиля. *Oriental renaissance: Innovative, educational, natural and social sciences*, *1*(10), 860-871.

29. Жалолов, Н. Н., Нуриддинова, З. И., Кобилжонова, Ш. Р., & Имамова, А. О. (2022). *Главные факторы развития избыточного веса и ожирения у детей* (Doctoral dissertation, Doctoral dissertation, O ‘zbekiston Respublikasi Sog ‘liqni Saqlash vazirligi, Toshkent tibbiyot akademiyasi, Koryo universiteti “Atrof muhit muhofazasining dolzarb muammolari va inson salomatligi” xalqaro ishtirok bilan Respublika 9-ilmiy-amaliy anjumani materiallari to ‘plami 153 bet).

30. Жалолов, Н., Зокирходжаев, Ш. Я., & Саломова, Ф. И. (2022). Сурункали гепатит билан касалланган беморларнинг ҳақиқий овқатланишини баҳолаш.«Тиббиётдаги замонавий илмий тадқиқотлар: долзарб муаммолар, ютуқлар ва инновациялар». In *мавзусидаги халқаро илмий-амалий конференция.(2022, May)*.

31. Кобилжонова, Ш. Р., Жалолов, Н. Н., & Журабоев, М. Т. (2022). Тугри овкатланиш спортчилар юкори натижалари гарови.

32. Кобилжонова, Ш. Р., Миррахимова, М. Х., & Садуллаева, Х. А. (2022). Распространенность и факторы риска бронхиальной астмы у детей. *Журнал теоретической и клинической медицины*, (2), 51-56.

33. Кобилжонова, Ш. Р., Миррахимова, М. Х., & Садуллаева, Х. А. (2022). Значение экологических факторов при бронхиальной астме у детей.

34. Миррахимова, М. Х., Нишонбоева, Н. Ю., & Кобилжонова, Ш. Р. (2022). Атопик дерматит билан касалланган болаларда панкреатик етишмовчиликни коррекциялаш.

35. Садуллаева, Х. А., Саломова, Ф. И., Мирсагатова, М. Р., & Кобилжонова, С. Р. (2023). Проблемы загрязнения водоемов в условиях Узбекистана.

36. Саломова, Ф. И. (2001). Оценка состояния здоровья и физического развития детей, поступающих в детские дошкольные учреждения. *Ж. Патология*, (4), 21-23.

37. Саломова, Ф. И. (2008). Особенности физического развития школьников с нарушениями осанки. *Вестник Санкт-Петербургской государственной медицинской академии им. ИИ Мечникова*, (4), 48-50.

38. Саломова, Ф. И. (2009). Функциональное состояние опорно-двигательного аппарата школьников с нарушениями осанки. *Травматология и ортопедия России*, (1), 70-73.

39. Саломова, Ф. И. (2009). Характеристика физического развития школьников с нарушениями осанки. *Вестник Новосибирского государственного университета. Серия: Биология, клиническая медицина*, *7*(3), 68-71.

40. Саломова, Ф. И. (2010). Гигиенические основы профилактики нарушений осанки и начальных форм сколиозов у детей и подростков. *Автореф. дисс….. докт. мед. наук. Ташкент*.

41. Саломова, Ф. И., & Тошматова, Г. О. (2012). Эпидемиология мастопатии и особенности заболеваемости женщин, страдающих мастопатией. *Врач-аспирант*, *52*(3.1), 222-228.

42. Саломова, Ф. И., Садуллаева, Х. А., & Самигова, Н. Р. (2022). Загрязнение атмосферы соединениями азота как этиологический фактор развития СС заболеваний г. *OOO" TIBBIYOT NASHRIYOTI MATBAA UYT*.

43. Саломова, Ф. И., Садуллаева, Х. А., Миррахимова, М. Х., Кобилжонова, Ш. Р., & Абатова, Н. П. (2023). Загрязнение окружающей среды и состояние здоровья населения. *Yosh olimlar tibbiyot jurnali*, *1*(5), 163-166.

44. Саломова, Ф., Садуллаева, Х., & Кобилжонова, Ш. (2022). Гигиеническая оценка риска развития аллергических заболеваний кожи у детского населения. *Актуальные вопросы профилактики стоматологических заболеваний и детской стоматологии*, *1*(01), 88-91.

45. Шеркузиева, Г. Ф., Саломова, Ф. И., & Юлдашева, Ф. У. (2023). Результаты санитарно-химических исследований воды.

46. Jalolov, N. N., Imamova, A. O., & Sultonov, E. Y. (2023). Proper nutrition of athletes, martial arts. *Pridobljeno*, *1*(8), 2024.

47. Imamova, A. O., Ahmadalieva, N. O., & Bobomurotov, T. A. (2022). Health states of children and ways to optimize the formation of the principles of a healthy lifestyle. *Eurasian Medical Research Periodical*, *8*, 125-128.

48. Bobomuratov, T. A., & Imamova, A. O. K. (2023). Forms and methods for forming a healthy lifestyle in children. *Academic research in educational sciences*, (1), 19-23.

49. Imamova, A. O., & Soliyeva, L. O. (2022). Hygienic assessment of children's health in the orphanage (Doctoral dissertation,«ОБРАЗОВАНИЕ И НАУКА В XXI ВЕКЕ» Xalqaro ilmiy jurnal).

50. Bobomuratov, T. A., & Imamova, A. O. Q. (2023). MAKTABGACHA YOSHDAGI BOLALAR ORGANIZIMIDA VITAMIN VA MINERALLAR YETISHMASLIGINING AHAMIYATI. *Academic research in educational sciences*, (1), 24-30.

51. Манер, С.С., Шейх, А.А., Акида, И., и Анвар, О. ГИГИЕНИЧЕСКИЕ АСПЕКТЫ ИСПОЛЬЗОВАНИЯ МЕДИЦИНСКИХ КОЖ.

52. Imamova, A. O. K., Bobomurotov, T. A., & Akhmadaliyeva, N. O. (2023). IMPROVING THE HEALTH STATUS OF FREQUENTLY ILL CHILDREN IN PRE-SCHOOL EDUCATIONAL INSTITUTIONS AND THEIR PRINCIPLES OF HEALTHY LIFESTYLE. *Academic research in educational sciences*, *4*(TMA Conference), 180-185.

53. Salomova, F. I., Imamova, A. O., Mirshina, O. P., & Voronina, N. V. (2023). HYGIENIC ASSESSMENT OF THE CONDITIONS OF WATER USE OF

THE POPULATION OF THE ARAL REGION. *Academic research in educational sciences*, *4*(TMA Conference), 968-973.

54. Ахмадалиева, НО, Саломова, ФИ, Садуллаева, КА, Абдукадирова, ЛК и Имамова, АО (2024). ИЗЪЯТО: Питание часто болеющих детей дошкольного возраста в организованных коллективах. В *BIO Web of Conferences* (т. 84, стр. 01011). EDP Sciences.