

Eureka Journal of Health Sciences & Medical Innovation (EJHSMI)

ISSN 2760-4942 (Online) Volume 2, Issue 10, October 2026



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ALLERGIC BRONCHITIS: CLINICAL FEATURES, DIAGNOSIS, TREATMENT AND PREVENTION

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Abstract:

Allergic bronchitis is a condition of the airways characterized by immune-mediated inflammation, often associated with allergen sensitization and eosinophilic inflammation. In clinical practice, the term "allergic bronchitis" is used to describe patients with cough, airway hyperreactivity, and allergic inflammation. However, differential diagnosis requires consideration of bronchial asthma, cough-variant asthma, eosinophilic bronchitis, infectious respiratory diseases, and other causes of chronic cough. Identifying triggers, assessing pulmonary function, performing an allergy examination, and identifying signs of eosinophilic inflammation are of particular importance. Current treatment approaches are aimed at eliminating or reducing exposure to causative factors, controlling airway inflammation, and treating associated

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allergic diseases. Preventive measures include control of household allergens, cessation of tobacco smoke, rational use of medications and regular medical monitoring.

Keywords: Allergic bronchitis, allergy, bronchi, eosinophilic inflammation, chronic cough, bronchial asthma, allergens, diagnosis, treatment, prevention.

Introduction

Respiratory diseases play a significant role in chronic pathology. One important mechanism of respiratory damage is allergic inflammation, which can be accompanied by coughing, chest congestion, wheezing, and episodes of difficulty breathing.

In modern pulmonology, it is essential to distinguish between the concepts of "allergic bronchitis" and bronchial asthma. Patients with a persistent cough may exhibit various types of eosinophilic airway inflammation, including cough-variant asthma and eosinophilic bronchitis. According to the European Respiratory Society guidelines, eosinophilic bronchitis is a phenotype of chronic cough and is characterized by eosinophilic airway inflammation without necessarily associated bronchial hyperreactivity.

The relevance of studying this problem is due to the need for early recognition of the allergic component of the disease, since timely identification of the causative factor and control of respiratory tract inflammation can reduce the severity of symptoms and the risk of disease progression.

The development of allergic inflammation of the bronchi may be associated with exposure to various allergens and irritants.

The most common factors include: house dust and dust mites; plant pollen; animal hair and epithelium; mold fungi; occupational allergens; some medications; chemical aerosols; tobacco smoke; air pollution; strong odors and perfumes; cold air; household chemicals.

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The risk of developing allergic respiratory diseases increases with a hereditary predisposition to atopic diseases, allergic rhinitis, atopic dermatitis and other allergic conditions.

The combination of allergic sensitization and exposure to irritants is significant. Cold air, smoke, perfumes, and chemical aerosols can trigger coughing and increase respiratory hypersensitivity.

The disease is caused by an inflammatory reaction of the respiratory tract mucosa. Allergic sensitization activates immune system cells, including eosinophils, mast cells, and T lymphocytes.

Exposure to an allergen triggers a cascade of immunological reactions, accompanied by the release of inflammatory mediators. This results in swelling of the bronchial mucosa, increased secretion production, and altered sensitivity of airway receptors.

Eosinophilic inflammation is particularly important in chronic cough. Some patients exhibit elevated eosinophil counts in sputum without significant bronchial hyperreactivity. This condition is consistent with eosinophilic bronchitis. The ERS guidelines consider the presence of more than 3% eosinophils in induced sputum in the absence of bronchial hyperreactivity as a supporting diagnosis of eosinophilic bronchitis.

The main symptom is a cough. It is often dry or unproductive and can persist for a long time.

Characteristic clinical manifestations may include: dry, paroxysmal cough; worsening cough at night or in the morning; coughing after contact with an allergen; sore throat and irritation; a feeling of discomfort or tightness in the chest; episodes of wheezing; shortness of breath; increased sensitivity to odors, smoke, and cold air; combination with symptoms of allergic rhinitis.

In some patients, symptoms occur primarily after exposure to a specific allergen. For example, coughing may worsen during the pollen season, when cleaning the room, or when in contact with animals.

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It's important to consider the presence of concomitant allergic diseases. Allergic rhinitis, conjunctivitis, and atopic dermatitis can accompany allergic respiratory inflammation.

Diagnosis should be based on a comprehensive assessment of complaints, anamnesis, clinical data and results of functional studies.

Collection of anamnesis. It is necessary to find out: duration of cough; Seasonality of symptoms; association of symptoms with being at home or at work; contact with animals; presence of household and occupational allergens; association of symptoms with physical activity; reaction to cold air; presence of allergic rhinitis or conjunctivitis; smoking and exposure to passive smoking; family history of allergic diseases.

Functional studies. Spirometry plays an important role. It allows for the assessment of respiratory function and the detection of signs of bronchial obstruction.

If asthma is suspected, additional methods for assessing variability of bronchial patency and bronchial hyperreactivity may be used.

Current chronic cough guidelines also recommend the use of parameters such as FeNO and blood eosinophil count to assess for signs of eosinophilic inflammation in appropriate clinical situations.

Allergy testing. If clinical signs of allergy are present, the following may be used: skin allergy tests; determination of specific IgE ; complete blood count with eosinophil determination; and other tests as indicated.

Allergological examination should be carried out taking into account the clinical picture and suspected allergens.

Sputum examination. In cases of chronic cough, induced sputum may be analyzed in specialized settings to determine its cellular composition. An increased eosinophil count may indicate eosinophilic inflammation of the airways.

Differential diagnosis. Allergic bronchitis must be differentiated from: bronchial asthma; cough variant of bronchial asthma; eosinophilic bronchitis; acute and

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chronic infectious bronchitis; allergic rhinitis with postnasal drip; chronic rhinosinusitis ; gastroesophageal reflux disease; chronic obstructive pulmonary disease; drug-induced cough; other causes of chronic cough.

Differentiation from bronchial asthma is particularly important. Asthma is characterized by variable symptoms and airflow limitation, whereas eosinophilic bronchitis may involve eosinophilic inflammation without bronchial hyperreactivity.

Treatment should be individualized and depend on the established mechanism of the disease.

Eliminating contact with the allergen. The first step is reducing exposure to the causative allergen.

Recommended: regularly carry out wet cleaning; reduce the accumulation of household dust; monitor indoor conditions; avoid tobacco smoke; limit contact with identified allergens; use personal protective equipment during professional contact with irritants; treat concomitant allergic rhinitis.

Anti-inflammatory therapy. If eosinophilic airway inflammation is confirmed, your doctor may consider anti-inflammatory therapy, including inhaled glucocorticosteroids , depending on the clinical diagnosis.

The ERS recommends considering a time-limited trial of inhaled glucocorticosteroids for certain types of chronic cough , particularly if there are signs of asthmatic cough or eosinophilic inflammation. If there is no response, therapy should be reconsidered rather than continued uncontrolled.

It should be emphasized that the specific drug, its dosage and duration of treatment should be determined by the doctor after the diagnosis is established.

Bronchodilators are used primarily when there are signs of bronchial obstruction or confirmed asthma. Their prescription should not be based solely on the presence of a cough.

Antihistamines may be used for allergic rhinitis and other allergic reactions. Their use depends on the nature of the allergic reaction and individual indications.

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Antibiotics are not a standard treatment for allergic bronchitis. They should only be considered if there is evidence of a bacterial infection.

Prevention is important to reduce the frequency of exacerbations and the severity of symptoms.

Key preventive measures: avoiding contact with identified allergens; regular wet cleaning of premises; monitoring household dust levels; ventilating premises; quitting smoking; protecting the respiratory tract when working with chemicals and dust; timely treatment of allergic rhinitis; rational physical activity; adherence to therapy prescribed by a doctor; regular medical supervision.

Particular attention should be paid to occupational factors. If symptoms are associated with the workplace, possible exposure to occupational allergens and irritants should be assessed.

Conclusion

Allergic bronchitis is a significant cause of cough and respiratory symptoms, but the term "allergic bronchitis" requires clinical clarification. In patients with a persistent cough, bronchial asthma, cough-variant asthma, eosinophilic bronchitis, upper respiratory tract diseases, gastroesophageal reflux, and other causes should be excluded.

The modern diagnostic approach is based on a thorough medical history, assessment of respiratory function, identification of allergic sensitization, and signs of eosinophilic inflammation. If the corresponding phenotype is confirmed, treatment should be aimed primarily at controlling airway inflammation and eliminating the triggering factors.

Prevention includes controlling allergens and irritants, quitting tobacco smoke, treating concomitant allergic conditions, and regularly monitoring the respiratory system. Proper diagnosis helps avoid unnecessary antibiotic and other medication prescriptions and tailor therapy to the specific disease mechanism.

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References

1. Akhmadaliev, N., Nigmatullaeva, D., Kamilov, A., Hakimova, D., & Salomova, F. (2020). Comparative self-assessment of the teachers' health of higher education institutions of the republic of Uzbekistan. *International Journal of Advanced Science and Technology*, 29(5), 1353-1355.
2. Axmedova, P. B. (2025). Adenotomy in children with allergic rhinitis and bronchial asthma. *Web of Medicine: Journal of Medicine, Practice and Nursing*, 3(3), 459-466.
3. Demir, A., Sadykova, A., & Kashkinbay, S. (2024). The use of mobile learning in patriotic education through the heroic image of Bauyrzhan Momyshuly in history lessons at school. *Pedagogical journal of Kazakhstan*, 2(75), 20-35.
4. Durdona, Q. S. R. O. T. (2024). THE CURRENT STATE OF THE PROBLEM OF SEVERE ACUTE PANCREATITIS.
5. Durdubaeva, R. M., & Sadikova, A. M. (2021). State of the raw ore resource and technological package for potassium fertilizer production in Uzbekistan. *Экономика и социум*, (2-1 (81)), 121-125.
6. Gladkovskiy, D. A., Sadykova, A. M., & Otepova, G. E. (2024). RELEVANCE OF INTERACTIVE TEACHING METHODS IN SCHOOL HISTORY LESSONS. КеАҚ «Әлкей Марғұлан атындағы Павлодар педагогикалық университетінің» ғылыми, ақпараттық-талдамалы журналы Научный информационно-аналитический журнал НАО «Павлодарский педагогический университет имени Әлкей Марғұлан», 4.
7. Karimova, A. E., Amanova, A. S., Sadykova, A. M., Kuzembaev, N. E., Makisheva, A. T., Kurmangazina, G. Z., & Sakenov, J. (2016). Theoretical Model of Professional Competence Development in Dual-Specialty Students (On the Example of the "History, Religious Studies" Specialty). *International Journal of Environmental and Science Education*, 11(17), 10683-10693.

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<https://eurekaooa.com/index.php/5>

8. Karimova, A., & Sadykova, A. (2020). Кооперативное движение в дореволюционном Казахстане: историографический аспект. Journal of history, 97(2), 158-168.
9. Khakimova, D., Sh, K., & Salomova, F. (2023). Results of hygiene assessment of food of school students. In International Scientific-Practical Conference "Only English: Advances in Medical Research and Practice Conference (Vol. 23, No. 2023, pp. 78-79).
10. Kobiljonova, S. R., Jalolov, N. N., Sharipova, S. A., & Mirsagatova, M. R. (2022). SPECTRUM OF CAUSE-SIGNIFICANT ALLERGENS CAUSING POLYNOSIS IN CHILDREN.
11. Mirkhamidova, S., Rustamova, H., Sharipova, S., Mamadjanov, N., Tuychieva, D., & Karimbayev, S. (2021). Methods of HIV infection prevention used by nurses. URL: <http://repository.tma.uz/xmlui/handle/1/1617>.
12. Mirrahimova, M. X., Kohiljonova, S. R., & Sadullayevna, X. A. (2022). PREVALENCE AND RISK FACTORS OF ALLERGIC DISEASE IN CHILDREN.
13. Ponomareva, L. A., Kazakov, E. K., Abduqodirova, L. K., Tuhtarov, B. E., Dravskix, I. K., Sharipova, S. A., & Sadullayeva, X. A. (2011). Umumiy gigiyena bilan ekologiya. Amaliy mashg'ulotlar uchun o'quv qollanma. Toshkent. Tafakkur-bo 'stoni.
14. Rahimov, B. B., Salomova, F. I., Jalolov, N. N., Sultonov, E. Y., & Obloqulov, A. G. (2023). O 'ZBEKISTON RESPUBLIKASI NAVOIY SHAHRI HAVO SIFATINI BAHOLASH: MUAMMOLAR VA YECHIM YOLLARI.
15. Sadikova, A. M. (2025). CYTOKINE-MEDIATED IMMUNOLOGICAL MECHANISMS AND CLINICAL MANIFESTATIONS OF JUVENILE RHEUMATOID ARTHRITIS. ОСНОВЫ МЕДИЦИНЫ, 1(7), 203-209.

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<https://eurekaoa.com/index.php/5>

16. Sadikova, A. M., & Yusupov, S. S. (2023). Modern Ideas About the Clinical and Immunological Features of Modern Juvenile Rheumatoid Arthritis and Methods of Its Therapy.
17. Sadykova, A. M., Sabdanbekova, Z. A., & Amanova, A. S. (2022). Ресей империясындағы мемлекет пен діннің қарым-қатынасы тарихынан. Bulletin of the Karaganda university History. Philosophy series, 105(1), 136-143.
18. Salomova, F. I. (2024, December). STIMULATION OF THE IMMUNE RESPONSE BY CYTOKINE PREPARATIONS AND THEIR STANDARDIZATION. European Youth innovation society conference.
19. Salomova, F. I., & Kosimova, H. T. (2017). RELEVANCE OF STUDYING INFLUENCE OF THE BONDS OF NITROGEN POLLUTING THE ENVIRONMENT ON HEALTH OF THE POPULATION SUFFERING CARDIOVASCULAR ILLNESSES (REPUBLIC OF UZBEKISTAN). In INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS AND PROSPECTS OF MODERN SCIENCE AND EDUCATION (pp. 81-83).
20. Salomova, F. I., Bobomuratov, T. A., Akhmadaliyeva, N. O., Imamova, A. O., & Niyozova, O. A. (2022, November). Formation of the principles of a healthy lifestyle in preschool children. In Uzbekistan-Japan International Conference «Energy-Earth-Environment-Engineering.
21. Salomova, F. I., Mavlonov, A., & Abdukadirova, L. K. (2024). Talabalar o'rtasida gastritning tarqalishi va to'g'ri ovqatlanishning ahamiyati.
22. Salomova, F. I., Mirrahimova, M. X., Sadullayeva, X. A., & Kobiljonova, S. R. (2022). Prediction and prevention of food allergies in children. In Uzbekistan-Japan International Conference «Energy-Earth-Environment-Engineering», November (pp. 17-18).
23. Salomova, F. I., Yuldasheva, F. U., Sherkuzieva, G. F., & Sharipova, S. A. (2024). STUDYING THE EFFECT OF IRRATIONAL NUTRITION ON THE STUDENT'S BODY.

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<https://eurekaooa.com/index.php/5>

24. Seidulaeva, L. B., Ergalieva, A. A., Shokalakova, A. K., Sadykova, A. M., & Utezhanova, G. D. (2015). Dirofilariosis. KazNMU Bulletin, 2, 72-74.
25. Sharipova, S. A., & Ikramova, N. A. (2024). CONSEQUENCES OF NOT BREASTFEEDING FOR THE MOTHER AND INFANT.
26. Sharipova, S. A., & Muyassarova, M. M. (2019). Studying the level of medical activity of the rural population. European science, 2(44).
27. TURLYBEKOVA, A., SADYKOVA, A., & SHABAMBAYEVA, A. (2025). RELIGIOUS LIFE OF KAZAKHSTAN IN THE PERIOD OF GREAT PATRIOTIC WAR. HISTORICAL AND SOCIO-POLITICAL SCIENCES» Учредители: Abai Kazakh National Pedagogical University, 83(4).
28. Кобилжонова, Ш. Р., & Садуллаева, Х. А. (2021). IMPACTS OF THE ENVIRONMENT ON HUMAN HEALTH.
29. Миррахимова, М. Х., Садуллаева, Х. А., & Кобилжонова, Ш. Р. (2022). Значение экологических факторов при бронхиальной астме у детей (Doctoral dissertation, Россия). Рустамова, ХЕ, Нурмаматова, КЧ, & Машарипова, Р. Некоторые аспекты состояния здоровья населения Узбекистана. ББК, 51, 118.
30. Муяссарова, М. М. (2018). Изучение уровня медицинской активности сельского населения. Молодой ученый, (5), 64-66.
31. Пирназаров, М. М., Садиков, А. А., Махмудов, Д. Э., & Хегай, Л. Н. (2021). Магнитно-резонансная томографическая визуализация повреждений коленных суставов. Re-health journal, (1 (9)), 152-159.
32. Рахимов, Б. Б., Саломова, Ф. И., Жалолов, Н. Н., Султонов, Э. Ю., & Облакулов, А. Г. (2023). Оценка качества атмосферного воздуха в городе навои, республика Узбекистан: проблемы и решения. In Сборник трудов по материалам Международной научно-практической конференции.
33. Садикова, А. М., & Ашурова, Д. Т. (2021). РОЛЬ ВИТАМИНА Д В РАЗВИТИИ ЗАБОЛЕВАНИЙ НИЖНИХ ДЫХАТЕЛЬНЫХ ПУТЕЙ У

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- ДЕТЕЙ. Central Asian Journal of Medical and Natural Science, 2(5), 299-302.
34. Саломова, Ф. И. (2008). Особенности физического развития школьников с нарушениями осанки. Вестник Санкт-Петербургской государственной медицинской академии им. ИИ Мечникова, (4), 48-50.
35. Саломова, Ф. И., & Кобилжонова, Ш. Р. (2026). ФАКТИЧЕСКОЕ ПИТАНИЕ ДЕТЕЙ С ОЦЕНКОЙ БИОЛОГИЧЕСКОЙ И ПИЩЕВОЙ ЦЕННОСТИ РАЦИОНОВ У АЛЛЕРГИЧЕСКИХ ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА. Медицинский журнал молодых ученых, (17 (03)), 384-389.
36. Саломова, Ф. И., Искандарова, Г. Т., Садуллаева, Х. А., Шарипова, С. А., Шеркўзиева, Г. Ф., Нурматов, Б. Қ., & Садирова, М. К. (2022). Атроф муҳит ва инсон саломатлиги мутахассислиги амалий кўникмаларни ўзлаштириш бўйича” услубий кўрсатма.
37. Саломова, Ф. И., Кобилжонова, Ш. Р., & Жалолов, Н. Н. (2023). Оценка эффективности диетотерапии при пищевой аллергии у детей в различные возрастные периоды. In Вестник ТМА SPECIAL ISSUE Dedicated to The 10th International Symposium On Important Problems of the Environmental Protection and Human Health.
38. Саломова, Ф. И., Кобилжонова, Ш. Р., & Юлдашева, Ш. П. (2026). Journal of Healthcare and Life-Science Research.
39. Саломова, Ф. И., Садуллаева, Х. А., Кобилжонова, Ш. Р., & Гаибназаров, С. С. (2022). Генные модификации при аллергических заболеваниях и действие их на детей.
40. Саломова, Ф. И., Шеркушева, Г. Ф., Салуллаева, Х. А., Султанов, Э. Ё., & Облокулов, Л. Г. (2023). Загрязнение атмосферного воздуха города алмалык. Медицинский журнал молодых ученых, 5(01), 142-146.
41. Шарипова, С. А. (2017). Актуальность проблемы и природные средства повышения защитных свойств организма. Молодой ученый, (22), 428-433.