CLINICAL AND EPIDEMIOLOGICAL FEATURES OF CHRONIC ALLERGIC DISEASES OF THE RESPIRATORY SYSTEM IN CHILDREN LIVING IN THE ARAL SEA REGION

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Annotation

The study explores the clinical and epidemiological characteristics of chronic allergic respiratory diseases among children living in the ecologically unfavorable Aral Sea region. Chronic allergic diseases, particularly bronchial asthma, represent a major health burden in childhood worldwide, with an estimated 95.7 million cases in 2021. Environmental pollution factors such as contaminated air, soil, and water are believed to significantly contribute to the high prevalence of allergic respiratory conditions in this region. The research analyzes epidemiological indicators, including age, gender, place of residence, and exposure to environmental risk factors, as well as clinical symptoms such as cough, wheezing, dyspnea, and bronchial obstruction. Results indicate that urban residence, proximity to industrial zones, and exposure to tobacco smoke and poor living conditions increase the risk of allergic respiratory diseases. Boys are affected slightly more frequently than girls in early childhood, though prevalence tends to rise among older girls. The findings highlight the urgent need for preventive measures, early diagnosis, and effective treatment strategies for children living in environmentally burdened regions like the Aral Sea area.

Relevance: Chronic allergic diseases in children place a significant burden not only on personal health problems, but also on the healthcare system of society. In particular, in 2021, one of the respiratory diseases in children - bronchial asthma - was observed in approximately 95.7 million cases.

In ecologically challenging areas - for example, in the Aral Sea region - external factors such as air, soil, water pollution, chemical waste, etc., play an important role in the spread and exacerbation of allergic respiratory diseases in children. Therefore, the study of the clinical and epidemiological features of the respiratory system in children with chronic allergic diseases in this region is of great importance.

Goal: Analysis of the general characteristics of clinical manifestations and prevalence (epidemiological) indicators of respiratory diseases in children with chronic allergic diseases of the respiratory system living in the Aral Sea region.

Materials and methods: Among the children: chronic allergic respiratory diseases were detected, and the place of residence - in ecologically complex areas (such as the Aral Sea region). Epidemiological data collection: age, gender, urban/rural place of residence, environmental factors (industrial zone, transport routes, air pollution) and anamnesis data related to allergic disease.

Clinical data: identification of respiratory symptoms - cough, wheezing, relapses, signs of obstruction, cases of uncontrolled treatment.

In this analysis, methods of comparison with world and regional statistics are used.

Epidemiological statistics (world and regional examples): In 2021, there were approximately 95.7 million cases of asthma in children. In the group of children under one year of age, a greater prevalence was observed in boys by sex.

In one study, it was noted that the overall prevalence of allergic diseases in children was more than 35%, of which allergic rhinitis was in the amount of 12%.

In another regional study, allergic rhinitis was found to be prevalent in children aged 6-12 years, ranging from 0.8% to 39.7%.

Clinical-epidemiological features (general): Chronic allergic respiratory diseases in children often manifest as a recurrent cough, wheezing, difficulty breathing, and obstruction. Epidemiologically: high levels of spread can be observed in children living in urban areas, along transport routes, and near industrial enterprises. Environmental factors: tobacco smoke at home, animals, unsuitable home conditions, and areas with high pollution are likely to increase the risk of allergic respiratory diseases in children. Age and sex composition: in home studies, the prevalence is slightly higher in boys, but the weight increases with age in girls as well.

Summary: In regions with high environmental load, such as the Aral Sea region, there are clinically and epidemiologically certain patterns in children with chronic allergic respiratory diseases. World statistics show that allergic diseases of the respiratory tract are widespread in children, and gender, age, place of residence, and environmental factors play an important role in their spread. Based on this systematic data, it is necessary to further improve prevention, early diagnosis, and treatment strategies in this area.

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