OCCURRENCE OF ALLERGIC RHINITIS AND BRONCHIAL ASTHMA IN ENVIRONMENTALLY UNFAVORABLE AREAS

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Annotation. The frequency of occurrence of bronchial asthma and allergic rhinitis in children was determined by studying the prevalence of symptoms of atopic pathology among children living in the districts of the Tashkent region using a questionnaire. The difference between official statistics and expert data is revealed, which indicates the need for in depth research to determine the prevalence of atopic diseases.

The objective. To determine the prevalence of bronchial asthma, and allergic rhinitis among the children living in the regions with intensified impact of negative ecological factors.

Research methods and data. The prevalence of atopic pathological symptoms (prevalence of bronchial asthma, allergic rhinitis, and atopic dermatitis) among the children living in ecologically unfavorable areas of Tashkent region was determined with the help of questionaries. The influence of unfavorable environmental factors was assessed by means of the study of water, air, and soil composition in Tashkent regions within 2015-2019.

Results of the study and discussion. The study of the prevalence of allergic pathologies among school age children in Tashkent region was performed by an overall polling of these children (n=5500):

At the first stage we defined the objective to study the prevalence and risk factors of atopic pathologies development among the children living in industrial areasof Tashkent region (such as Angren, Olmalik, and Chirchik). At this stage 1878 (34.1%) children suspected to have atopic pathology, who answered most of the questions positively, were chosen for the further study. Among them there were 1210 (64.4%) with suspected bronchial asthma, and 668 (35.6%) with suspected allergic rhinitis.

At the second stage we performed profound (clinical laboratory-instrumental) tests in order to confirm the presence of allergy in those 1878 children with "possible allergic pathology", who presented symptoms of bronchial asthma and allergic rhinitis. After all tests were finished the

presence of atopic pathology was confirmed in 550 (29.28%) children. At the second stage the research was performed in the Allergic Department of multi profile clinic of Tashkent Medical Academy. At the end of that stage we performed analysis of the results of clinical, laboratory-instrumental, and anamnesis studies of 550 (29.28%) children with atopic pathology. Compared to the results obtained at the first stage of the study the morbidity rate of allergic diseases herein was 2.6 folds less. However, it was 2.2 folds higher than the data of official statistics on atopic pathologies prevalence. Among 550 children with atopic pathologies three hundred and twenty six (59.2%) were diagnosed with bronchial asthma according to the GINA classification-intermittent BA 58.3%, light persistent 23.6%, moderate persistent 18.1%, severe persistent 0% and two hundred and twenty four (40.8%) were diagnosed with allergic rhinitis according to the classification of ARIA, 2008 (Allergic Rhinitis and Impacton Asthma)- intermittent-mild severity was 3.7%, persistent - mild severity of 20.1%, intermittent-moderate / severe severity of 20.6%, persistent - moderate / severe severity 55.6%.

Bronchial asthma was mostly observed among girls from 5 to 12 years old. Allergic rhinitis was mostly registered in 65% girls of 7-13 years old.

In order to determine the symptoms of atopic pathology in children we performed polling with the help of ISAAC questionnaire adopted and modified for our region. We performed the poll among 5500 children of 7-8 and 13-14 years old living in industrial areas of Tashkent region (Angren, Olmalik, and Chirchik) within 2016-2019.

At the 2nd stage we have chosen 1878 questionnaires of the children, who mostly answered positively. Among them there were 1210 (64.4%) with a suspected bronchial asthma and 668 (35.6%) with suspected allergic rhinitis. For the further identification of characteristic features of clinical progression and risk factors of atopic pathology development we performed additional tests with the inclusion of the complete allergic history in 550 children. Later from these children we have chosen three hundred and twenty six with intermittent, light persistent, and moderate persistent intermittent stages of BA for further laboratory and instrumental tests.

The bronchial astma in all areas is mostly registered among 7-8 years old children. In relation to the place of living it was determined that children from Angren in all three age groups had greater BA prevalence rate than children from other areas. In Angren there is a branch of metallurgical industry due to which there is a great emission of aluminium into the soil.

The obtained data showed that allergic rhinitis was mostly registered in children under 5 in all three areas. When distributed according to the place of living, children from Chirchik had greater prevalence rate of allergic rhinitis in all age groups compared to the children from other areas.

The reason of this is that in Chirchik there is Uzbek Petrol Machineslarge industrial holding which produces technological devices for chemical industry and there is continuous emission of chlorine evaporation into the air.

Conclusion. Thus, in Tashkent region (Angren, Olmalik, and Chirchik) the prevalence rate of atopic pathologies bronchial asthma and allergic rhinitis is continuously increasing each year. The difference between statistical and expert data showed the necessity of further profound research to study the prevalence rate of atopic pathologies in these areas.

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