# INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT

SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563

elSSN 2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 10, issue 11 (2023)

#### УДК: 616.248:616.211-002:577.4

## THE EFFECT OF ATYPICAL PATHOGENS ON THE COURSE OF AD IN CHILDREN AGAINST THE BACKGROUND OF CONNECTIVE TISSUE DYSPLASIA

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Relevance: Bronchial asthma (BA) remains an urgent problem of medicine, in particular pediatrics. The prevalence of AD among the child population according to official statistics is 5-10%. These figures are based on the treatment of patients in medical institutions, and therefore the prevalence rates of AD, which are published officially, are significantly lower. Often, the diagnosis of AD is established late- em because they often go under other diagnoses: Obstructive bronchitis, recurrent bronchitis, etc. In this regard, they are 4-5 years late, which determines the wrong treatment tactics, the lack of necessary prevention of the disease. significantly leading to its uncontrolled flow. Respiratory infections associated with atypical pathogens remain in the focus of attention of researchers in many countries.[1,2]. Despite the successes achieved in the study of respiratory chlamydia (CHI) and mycoplasma infection (MI) caused by Chlamydophila pneumoniae (C. pneumoniae) and Mycoplasma pneumoniae (M. pnneumoniae), problems associated with diagnosis and treatment persist.[2] Recently, a high frequency of respiratory chlamydia has been noted in patients with bronchial asthma (BA) (from 24 to 52%), especially with its severe course. After examining 82 children from 2 to 16 years with AD and 27 children of the control group using a serological method to detect AT to C. pneumoniae and M. pneumoniae and PCR for the diagnosis of respiratory viruses, the authors confirmed the high frequency of viral infection, especially entero- or rhinovirus, with exacerbation of AD.[2,3] The relationship between the transferred in at an early age, chlamydia, mycoplasma infection and subsequent occurrence of AD. The following risk factors for the formation of AD are considered: prematurity, perinatal damage to the central nervous system, low birth weight, threat of termination of pregnancy, perinatal asphyxia [1,3,6,10]. Morphological changes in the bronchi in AD. The inflammatory process affects all the structures of the armor wall. The bronchial lumen is filled with desquamated respiratory epithelium, eosinophils, bronchial secretions. The basement membrane is edematous, thickened throughout, the main substance is disorganized; the vascular permeability of the venules and capillaries of the bronchial wall is changed. Infiltration of the walls of the respiratory tract by inflammatory cells (eosinophils) is noted., T-lymphocytes, monocytes), followed by thickening of their smooth muscles and fibrosis of the subepithelial mucosal layer, hyperplasia of mucous membranes and goblet cells (remodeling of the bronchial wall). Such changes are observed both in the early stages of the disease, and in the intercalative period in both severe and mild cases of the course of the disease. It is proved that even with persistent remission, the described morphological changes in the bronchi persist, which indicates the persistent nature of inflammation. Such a morphological picture indicates that persistent inflammation is the basis of AD, and there is no correlation between clinical manifestations and morphological changes [1,3,6,9,11]. In recent years, there have been many publications about the high- the population frequency of connective tissue dysplasia (DST) [2,5,7]. DST is considered as a polygenic multifactorial condition, manifested by external and internal phenotypic signs and clinically significant dysplastic- dependent disorders of the functions of organs and systems [12]. The diagnosis of an undifferentiated variant of DST was established according to generally accepted criteria (at least six small external and/or visceral signs of DST): dysembriogenesis

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stigmas, joint hypermobility syndrome, chest deformity, hyperelasticity of the skin, hernias, visual abnormality, prolapse of heart valves, the presence of false cardiac chords, their abnormal location, arrhythmias; biliary dyskinesia, gallbladder abnormalities, duodenogastroesophageal reflux, dolicho-sigma, gastroptosis, nephroptosis [5,12]. The accumulation of "genetic cargo" leads to a steady increase in the prevalence of DST in the population. The aim of the study was to study the features of the clinical course of AD caused by atypical pathogens against the backgroundof connective tissue dysplasia in children.

**Materials and methods of research:** 86 patients aged from 5 to 18 years with BA were under observation for a year. The diagnosis of AD was established according to the provisions of the modern protocol (GINA, 2008). In 41.6% of children, a mild persistent course of BA was observed; in 49.5% —moderate, in 8.9% — severe persistent course of BA. Pneumonia caused by atypical pathogens (surfactants) was detected in 65 (68.8%) patients. The diagnosis of surfactants was carried out using clinical and radiological criteria (the presence of intoxication and respiratory syndromes, on the chest X-ray (RGOGC) - a decrease in pneumatization of the lung tissue due to reticulonodosis, an increase in vascular interstitial component). Objective instrumental (RGOGC, ECG, echocardiography, rheopulmonography), laboratory (hemogram, determination of a diagnostically significant titer of antibodies to the desired intracellular pathogens were determined in the study of blood serum for the presence of diagnostically significant titers of specific antibodies to these infectious agents of classes - IgM, IgG. It should be noted that all the observed children had phenotypic manifestation of DST.

**Results and their discussion**: 86 patients aged from 5 to 18 years with BA were under observation during the year. The diagnosis of AD was established according to the provisions of the modern protocol (GINA, 2008). 38.15% of children had mild persistent BA; 44.73% had moderate, 17.12% had severe persistent BA. Atypical pathogens in the blood were detected in 58 (63.15%) patients. The diagnosis was carried out by an objective instrumental laboratory (hemogram, determination of a diagnostically significant titer of antibodies to intracellular pathogens of atypically occurring diseases by enzyme immunoassay ELISA) study. Intracellular pathogens were determined in the study of blood serum for the presence of diagnostically significant titers of specific antibodies to these infectious agents of classes - IgM, IgG. It should be noted that all the observed children had phenotypic manifestations of DST. The diagnosis of DST was carried out according to the criteria defined by the rivers.

Fotal number of BA+CDT+Atypical					CDT+ BA
examined		Pathogens			
patients:					
76	·	48			28
		CDT+BA	CDT+CMV	CDT+	
		Mycoplasma infection	+Chlamydia	TORCH	
			infection	infection	
		17	22	9	

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## Conclusions

1. There was a close association of BA with the manifestations of CDT in the examined children.

2. 38.15% of children with mild persistent BA had a "cough variant" of the clinical course of the disease.

3. In 1/3 of children, exacerbation of AD is associated with mycoplasma and chlamydia infection.

4. Recurrent BA was detected in 37.2% of patients with CDT.

5. It is necessary to further study the features of BA in children with CDT.

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