

#### Азимова Камола Тальатовна.

ассистент кафедры педиатрии №3,

Самаркандский государственный медицинский институт

Шавази Шавази Нурали Мухаммад угли,

Д.м.н., профессор, заведующий кафедрой педиатрии №1, Самаркандский государственный медицинский институт

Закирова Бахора Исламовна,

к.м.н., доцент кафедры педиатрии №1,

Самаркандский государственный медицинский институт

Карджавова Гульноза Абилкасимовна.

ассистент кафедры педиатрии №1,

Самаркандский государственный медицинский институт

# ОБСТРУКТИВНЫЙ БРОНХИТ У ДЕТЕЙ: ВЗАИМОСВЯЗЬ МИКРОЭКОЛОГИИ КИШЕЧНИКА С КЛИНИЧЕСКОЙ ХАРАКТЕРИСТИКОЙ

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### **АННОТАЦИЯ**

Обследовано 52 больных детей с острым обструктивным бронхитом. Микрофлора кишечника изучена по общепринятой методике. Выявлена взаимосвязь показателей кишечной микробиоты с тяжестью клинических симптомов при остром обструктивном бронхите у детей. Дисбиотические нарушения микрофлоры кишечника взаимосвязаны со степенью тяжести клинических проявлений, отражаясь на функциональной способности желудочно-кишечного тракта, способствуют сенсибилизации организма и усилению бронхообструкции.

Ключевые слова. Острый обструктивный бронхит у детей. Кишечная микрофлора.

## Azimova Kamola Ta'latovna,

3-sonli pediatriya kafedrasi assistenti, Samarqand Davlat Tibbiyot Instituti

Shavazi Nurali Muxammad o'g'li,

t.f.d., professor, 1-sonli pediatriya kafedrasi mudiri, Samarqand Daylat Tibbiyot Instituti

Zakirova Bahora Islamovna,

t.f.n., 1-sonli pediatriya kafedrasi dotsenti, Samarqand Davlat Tibbiyot Instituti

Kardjavova Gulnoza Abilkasimovna.

1-sonli pediatriya kafedrasi assistenti, Samarqand Davlat Tibbiyot Instituti

# BOLALARDA OBSTRUKTIV BRONXIT: ICHAK MIKROEKOLOGIYASINING KLINIK XUSUSIYATLARIGA BOG'LIQLIGI

## ANNOTATSIYA

O'tkir obstruktiv bronxit bo'lgan 52 ta bemor bola ko'rikdan o'tkazildi. Ichak mikroflorasi standart usuli yordamida o'rganildi. Bolalardagi o'tkir obstruktiv bronxitning og'irlik daraja simptomlari ichak mikrobiatasining ko'rsatkichlari bilan



bog'liqligi ko'rsatilgan. Ichak mikraflorasining disbiotik buzulishlari, organizmning sensibilizatsiyasi va bronxoobstruktiyani kuchaytirilganini aks ettiradi.

Kalit so'zlar. Bolalarda o'tkir obstruktiv bronxit. Ichak mikroflorasi.

#### Azimova KamolaTalatovna

Assistant of the department of pediatrics №3

Samarkand State Medical Institute

Samarkand Uzbekistan

### Shavazi Nurali Mukhammadovich

Doctor of Medical Sciences, Professor, Head of the Department of Pediatrics №1 Samarkand State Medical Institute Samarkand Uzbekistan

#### Zakirova Bakhora Islamovna

Candidate of Medical Sciences, Associate Professor of the the Department of Pediatrics №1 Samarkand State Medical Institute Samarkand Uzbekistan

## Kardjavova Gulnoza Abilkasimovna

Assistant of the department of pediatrics №1

Samarkand State Medical Institute

Samarkand Uzbekistan

# OBSTRUCTIVE BRONCHITIS IN CHILDREN: RELATIONSHIP OF INTESTINAL MICROECOLOGY WITH CLINICAL CHARACTERISTICS

ANNOTATION

52 children with acute obstructive bronchitis were examined. The intestinal microflora was studied according to the generally accepted method. The relationship of intestinal microbiota indicators with the severity of clinical symptoms in acute obstructive bronchitis in children was revealed. Dysbiotic disorders of the intestinal microflora are interrelated with the severity of clinical manifestations, affecting the functional ability of the gastrointestinal tract, contribute to the sensitization of the body and increase bronchial obstruction.

Keywords. Acute obstructive bronchitis in children. intestinal microflora.

Relevance. It is known that acute obstructive bronchitis is diverse in form and severity and respiratory failure and laryngeal stenosis play an important role in its course, which can be fatal in the absence of timely and urgent care [1]. Conditionally pathogenic flora with prolonged persistence in the body of a sick child enhances dysbiosis and contributes to the formation of bacterial sensitization with the subsequent development of respiratory allergy [2]. It has been proven [1] that a violation of the intestinal microecology often plays a decisive role in the mechanisms of immunoresistance and metabolism, allergies and inflammation. Hence the importance of studying the state of metabolism, the course of respiratory diseases that occur with obstruction and stenosis, depending on the state of the intestinal microbiota of children [3].

**Objective.** Identify the relationship between indicators of intestinal microbiota and the severity of clinical symptoms and laboratory data in acute obstructive bronchitis in children.

Material and methods. The study involved 52 patients of early age with acute obstructive bronchitis hospitalized in the SF of the Center for Emergency Medical Treatment. The intestinal microflora in the dynamics of the disease was studied according to the generally accepted method of seeding feces, developed by R.V. Epstein-Litvak, F.A. Vilshanskaya modification MA Akhtamova et al. [4]. In the diagnosis of microbial imbalance, the classification was used by Blokhina I.N. [5].

**Results.** We studied the effect of the role of intestinal microflora in the development of clinical and laboratory manifestations of acute obstructive bronchitis in children. When studying the correlation between the severity

of the condition of children and the level of obligate microfor in patients, it was found that the more severe the condition of the patients, the lower the concentration of Bifidobacterium and Lactobacillus (r = -0.701 and r = -0.689), i.e. there was a close inverse correlation relationship. The level of lactosepositive Escherichia also decreased in patients with severe disease, but correlations were weak (r = -0.458) in nature. The same weak but direct correlations were observed with the ratio of the severity of sick children with acute obstructive bronchitis and conditionally pathogenic flora - Klebsiella and Citrobacter (r = +0.522 and r = +0.504, respectively). When the ratio of the severity of the condition of sick children with acute obstructive bronchitis and the level of pathogenic flora was revealed close direct relationship. Thus, the correlation indicator when comparing Staphylococcus aureus and E. coli gemoliticus was r = +0.707 and r = +0.710, respectively. The moderate degree of relationship was between the level of Candida fungi (r = +0.602) and the severity of the condition of sick children with acute obstructive bronchitis. When comparing the number of Bifidobacterium and Lactobacillus with the severity of the degree of obstructive syndrome (r = -0.650 and r = -0.619), an inverse correlation relationship was found. Thus, an analysis of studies has shown the presence of correlations between the main clinical symptoms in children with acute obstructive bronchitis and the composition of the intestinal microbiota.

**Findings.** Thus, in sick children with acute obstructive bronchitis, dysbiotic disorders of the intestinal microflora are closely interrelated with the severity of clinical manifestations, affecting the functional ability of the gastrointestinal tract,



contribute to the sensitization of the body and enhance bronchoconstruction.

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