

**THE CLINICAL-EPIDEMIOLOGICAL CHARACTERISTIC OF  
THE ACUTE OTITIS MEDIA AT A HIV-INFECTED OF CHILDREN**  
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**Abstract:** acute otitis media (AOM) concern the most frequent bacterial infections at children with normal immune system, however features of a current of these diseases at immunodeficiencies are studied poorly. Meanwhile our private experience and that few data of clinical researches which are available for today, say that this of diseases, in acute, chronic and relapse forms, often meets at a HIV-infected of children. At studying of results of research it is revealed that the catarrhal form of a AOM at children were observed at 22 (36.6 %), during too time the purulent form of a sharp average otitis aged observed at 38 (63.4 %) cases.

**Keywords:** HIV-infected, children, acute otitis media, opportunistic infection, stages of the disease, purulent.

**КЛИНИКО-ЭПИДЕМИОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА ОСТРОГО  
СРЕДНЕГО ОТИТА У ДЕТЕЙ С ВИЧ-ИНФЕКЦИЕЙ**  
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**Аннотация:** острый средний отит (ОСО) относятся к наиболее частым бактериальным инфекциям у детей с нормальной иммунной системой, однако особенности течения этих заболеваний при иммунодефицитах изучены слабо. Между тем, наш собственный опыт и немногие данные клинических исследований, которые имеются на сегодняшний день, говорят о том, что это заболевание в острой, хронической и рецидивирующей формах часто встречается у ВИЧ-инфицированных детей. При изучении результатов исследования выяснилось, что катаральная форма ОСО у детей наблюдалась у 22 (36,6%), в то же время гнойная форма ОСО наблюдалась у 38 (63,4%) случаев.

**Ключевые слова:** ВИЧ-инфекция, дети, острый средний отит, оппортунистическая инфекция, стадии болезни, гнойный.

The problem of infection caused by the human immunodeficiency virus (HIV infection) in otorhinolaryngology in our country has been studied since the beginning of the 90 y. The diseases that are an indicator of the acquired immunodeficiency syndrome (AIDS) have been identified and described, the symptoms of ear, nose and throat involvement in HIV-infected and AIDS patients have been studied [1-3].

The classic manifestation of HIV-infection, which an otorhinolaryngologist may encounter, is the development of AOM. AOM refers to the most common bacterial infections in children with a normal immune system, but the features of the course of these diseases in immunodeficiency have been poorly studied. Meanwhile, our own experience and the few clinical research data available to date suggest that this disease, in acute, chronic and recurrent forms, is often found in HIV-infected children. This disease has long attracted the attention of otorhinolaryngologists and pediatricians, especially since there were observations and studies pointing to the association of acute otitis media with HIV infection [4, 5].

**Purpose of research** - clinical and epidemiological characteristics of AOM in HIV-infected children at various stages of the disease.

**Materials and methods**

Under our supervision were 60 children with AMO before the age of 14 years. The boys were 28 (48%), girls 32 (52%). All of them were registered at the Bukhara Regional AIDS Center.

The diagnosis of HIV was based on the detection of specific antibodies in standard serological tests (ELISA, immunoblotting in Western-blot modification), and comparison of epidemiological and serological data.

The main manifestation of AOM, in addition to anxiety and poor sleep, is the symptom of Pinz (the sick child prefers to suck the opposite breast to the patient's ear - in right-sided otitis sucks the left breast and vice versa) in 10 (16.6%) and Wache symptom in 14 (23.3% ), pendulum movement of the head in 8 (13.3%), an increase in body temperature in 16 (26.6%), and also in advanced cases, neurological signs; darkening of consciousness in 8 (13.3%), convulsive syndrome in 4 (6.6%) patients. With otoscopy, the state of the tympanic membrane (hyperemia, swelling or flattening of the eardrum contours) was assessed the localization of the perforation on it, color, the nature of the purulent discharge from the ear, and the state of the mucosa of the tympanic cavity. If necessary, for a diagnostic and therapeutic purpose, a tympanopuncture was performed with a non-perforated

otitis media.

### **Results and discussion**

When studying the results of the study, it was found that the catarrhal form of acute otitis media in children was observed in 22 (36.6%), while the purulent form of AOM was observed in 38 cases (63.4%). By age, the patients were divided into 4 groups: 1st (20 children) up to 1 year; 2nd (16 children) from 1 year to 3 years; 3rd (14 children) from 3 to 7 years; 4th (10 children) from 7 to 14 years.

Consequently, in HIV-infected children, purulent forms of AOM often occur, which is apparently related to the anatomical and physiological characteristics of the child's organism, the age and possibly the degree of severity of the underlying disease.

At the first stage of HIV infection, the catarrhal form of otitis media was observed in 3 (13.6%), and acute purulent otitis media (APOM) in 3 (7.8%) cases, respectively. At the second stage of HIV infection, the catarrhal form of AOM was observed in 5 (22.7%) children, and APOM in 7 (18.4%) cases.

At the third stage of HIV-infection, the catarrhal form of otitis media was observed in 6 (27.2%) children, and APOM was predominantly observed in 12 (31.6%) cases. At the 4th stage of HIV infection, the catarrhal form of AOM was observed in 8 (36.5%) children, and APOM was predominantly observed in 16 (42.2%) cases. Analysis of these studies shows that there is a correlation with the severity of HIV-infection with the incidence of AOM and the age of patients.

This is due to the defeat of the immune and other protection systems in children different years of their life.

Consequently, the frequency of AOM was clearly dependent on the clinical stages of HIV-infection.

The greatest amount of APOM with severe severity can be explained with the addition of opportunistic infections.

Thus, HIV-infection in children leads to increased occurrence and development of AOM, which is characterized by a peculiar clinical course. Has a clear relationship with the severity of HIV infection and the frequency of AOM in children.

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