



SIGNIFICANCE OF CYTOMEGALOVIRUS INFECTION IN CHILDREN WITH CHRONIC TONSILLITIS

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Annotation

Very often, the inflammatory pathology of the ENT organs leads to chronicity of the process, especially if the process is localized in the tonsils. The chronic inflammatory process in the tonsils has its own characteristics, in particular, the process is characterized by stages of development, as well as in the close relationship of normal and pathological processes. The basis for this study was the high frequency of occurrence and significance of CMVI in children.

Keywords: cytomegalovirus infection, tonsillitis, adenoiditis, inflammatory process;

The clinical manifestations of congenital CMVI have been well studied and described in detail in the scientific literature [4,5]. There are also works in which the significant role of CMVI in the pathology of children's somatic health is noted. The features of the clinical manifestations of active CMVI in school-age children suffering from chronic tonsillitis, adenoiditis have not been sufficiently studied. The diagnostic criteria and the effect of various methods of treatment of chronic tonsillitis and adenoiditis in children with CMVI have not been sufficiently studied [1,2,3].

Thus, the development of new approaches to the diagnosis of cytomegalovirus infection in children with chronic tonsillitis, adenoiditis in children, in order to develop a diagnostic algorithm is very relevant.

Materials and Methods of Research

The work was carried out in the period from 2020 to 2023 at the Department of Otorhinolaryngology (Head of the Department Prof. Nasretdinova M.T.) and at the Department of 3 Pediatrics and Medical Genetics (Head of the Department Associate Professor Mukhamadieva L.A.) Samarkand State Medical University (Rector Prof. Zh.A. Rizaev). Clinical observation was carried out in 116 patients with chronic tonsillitis (compensated form) in 76 patients and adenoiditis in 40



patients, aged 4 to 14 years, as well as a retrospective analysis of the case histories of 66 sick children with chronic tonsillitis and adenoiditis of the same age was carried out on an inpatient and outpatient basis on the basis of the multidisciplinary clinic of Samara State Medical University in the department of otorhinolaryngology and the children's department. Verification of the diagnosis of CT and CA carried out according to the requirements of WHO and classified according to the international classification of the disease ICD-10.

To confirm the presence of CMV in biological material, molecular biological research methods were used - detection of CMV DNA in biological material. The amount of CMV DNA in the whole blood of the examined patients was determined by PCR with hybridization-fluorescence detection of CMV in real time (Real-time) on the IQ-5Cycler analyzer (BioRad, CIA) using the AmpliSense®CMV-screen/monitor-FL reagent kit. Depending on the tasks, the children were divided into the following groups. Data from the control groups were taken from a retrospective analysis of case histories. Control group (I) children with chronic tonsillitis received standard therapy. The control group (II) children with CA received standard therapy, the main group (III-CT) children with chronic tonsillitis, along with standard therapy, received the antiviral drug Groprinosin as antiviral therapy. Main group (IV-CA) children with chronic adenoiditis along with standard therapy received the drug Groprinosin. It was prescribed to children - in a daily dose at the rate of 50 mg / kg of body weight for 3-4 doses for 5-7 days. The effectiveness of therapy was assessed by the dynamics and rate of regression of clinical symptoms and laboratory parameters.

Results

When examining 40 patients and a retrospective analysis of 30 outpatient cards, it showed that the main complaints made by parents and patients with chronic adenoiditis were difficulty in nasal breathing, snoring, breathing through an open mouth, especially during acute respiratory infections, frequent acute respiratory infections, nasal congestion, periodic fever for a long time, swollen peripheral lymph nodes, older children complained of headaches, fatigue (Fig. 1).

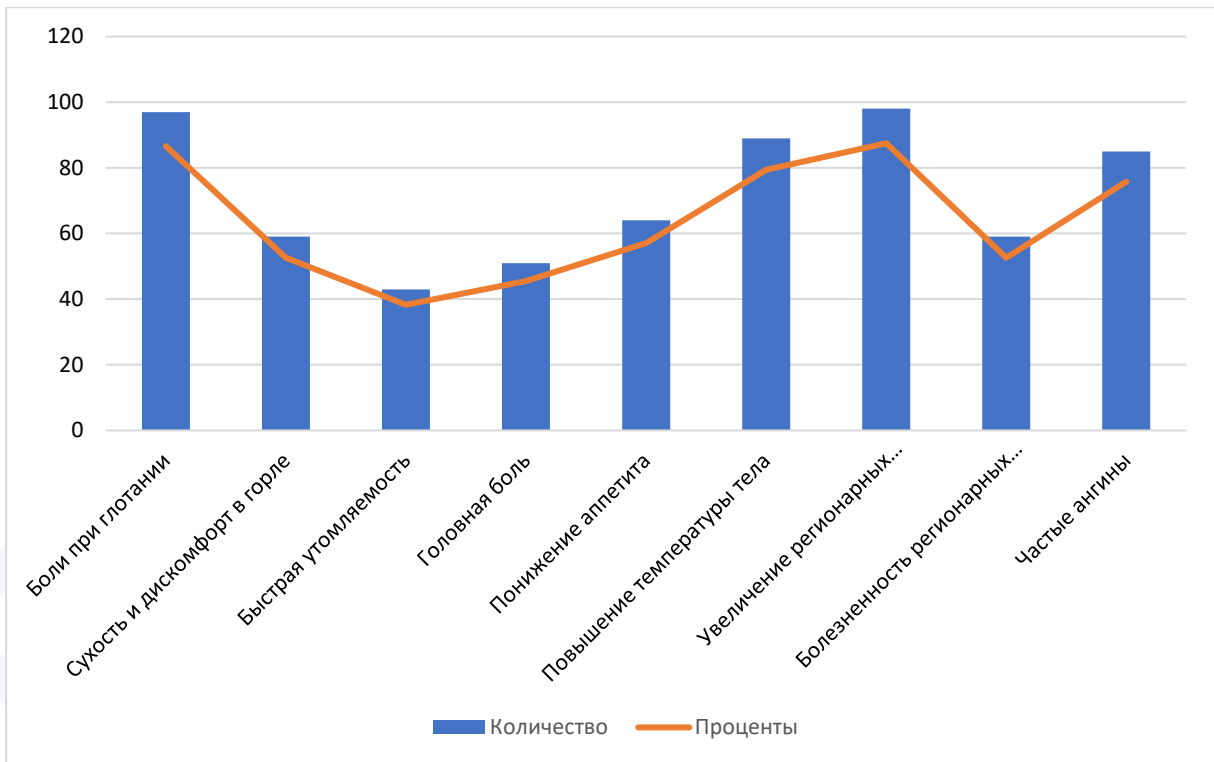


Fig.1. Clinical data of patients with chronic tonsillitis associated with EBV and CMVI in the acute stage (n=112)



Fig.2. Clinical and anamnestic signs of patients with adenoiditis associated with CMVI in the acute stage (n = 70)

From the data presented it follows (Fig. 2) that in chronic adenoiditis, night snoring (92.8%), difficulty in nasal breathing (88.5%), frequent acute respiratory infections (84.2%), an increase in regional lymph nodes (92.8%), subfebrile



condition (67.1%) are most often noted. 14 children aged 6 to 10 years complained of a feeling of discomfort and dripping mucus along the back of the pharynx. Hypertrophy of adenoid vegetations of the first degree was detected in 44.2%, and hypertrophy of adenoid vegetations of the II degree in 55.8% of children.

At the present stage, research continues on the significance and role of opportunistic infections in the development of abnormalities in the health status of children, including the development of pharyngeal tonsil pathology [5,6,7].

Taking into account the above provisions, we carried out the frequency of CMVI infection in children with adenoiditis by PCR in scrapings from the throat (Table 1)

Table 1. Etiological structure of the incidence of CMVI infection by PCR from the pharynx in the pathology of the pharyngeal tonsil, %.

| | Degree of adenoid vegetations | | | | | | Authenticity | | |
|---------------------|-------------------------------|-----|------------|------|-------------|------|--------------|----------|-----------|
| | I n =12 | | II n=52 | | III n=13 | | | | |
| | P | % | See | % | See | % | R1 | R2 | R3 |
| CMVI(n = 37) | 4,28 | 5,3 | 24,1 | 31,6 | 9,54 | 11,8 | R<0.00001 | p<0.0001 | p<0,00001 |

Findings

Thus, the presence of pregnancy pathology in women during pregnancy: anemia (85.7%), TORCH infection (69.7%), vomiting of pregnant women (72.5%), acute respiratory infections (42.8%), the threat of abortion (23%) are risk factors for the development of chronic tonsillitis and adenoiditis associated with CMVI and EBV in children. With frequent exacerbations of chronic tonsillitis and adenoiditis, it is necessary to take into account the possibility of association of CMVI and EBV, which were identified in our study in 182 children. The clinical features of the course of CT and CA associated CMVI are: frequent exacerbations and acute respiratory viral infections, periodic increases in body temperature for a long time, lymphadenopathy.



Literature

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