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COVID-19: PREVENTION AND DIAGNOSIS

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Annotation: COVID-19 is transmitted from person to person and is caused by a new type of coronavirus. In children, it often runs without symptoms such as fever, cough, and difficulty breathing. However, it is children who require special attention, because among them there may be those who still need hospitalization. In addition to wearing a mask, you should wash your hands frequently, cover your mouth and nose when sneezing and coughing, and avoid close contact with anyone who has symptoms characteristic of acute respiratory infections or influenza: coughing, sneezing, fever.

Keywords: children, diagnosis, prevention, COVID-19

Relevance of the problem: COVID-19 is a human-to-human acute respiratory viral illness caused by a new type of coronavirus. Symptoms of the disease usually develop within 2-14 days after exposure to the virus. In most cases, mild symptoms of the disease are observed. However, some people may be carriers of the virus without any symptoms, although others may develop severe complications [5]. In particular, COVID-19 can cause very severe pneumonia with pronounced respiratory problems, or even lead to death. Analysis of data obtained in other countries has shown that children are less at risk of coronavirus infection than adults [8].

In general, the risk of severe complications is lower in children, but these findings do not suggest that children cannot become infected with COVID-19. Consequently, the question arises as to the reasons for the presumed relative resistance of children to SARS-CoV-2. Researchers worldwide have concluded that this may be due to a number of reasons. In particular, epidemiologically, children have a reduced risk of infection due to less travel, socialization and movement, especially young children who do not attend a collective [1].

In addition, this low incidence of disease in children may be related to higher levels of circulating ACE2, perhaps even in children there are some features of innate immunity that disappear in ontogeny. It has been found that possible reasons for this may include a better condition of the respiratory tract mucosa due to the absence of exposure to cigarette smoke and polluted air [3]. At the same time, it should be noted that of course children have a much smaller number of chronic diseases in contrast to adults. The maturation of immunity in older children may explain the unfavorable type of triggered immune response associated with the development of acute respiratory distress syndrome in adult patients [2].

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The course of the disease in children also has its own peculiarities. In particular, it has been found that children are mostly asymptomatic or asymptomatic and may be asymptomatic carriers. COVID - 19 in children often runs without symptoms such as fever, cough, and difficulty breathing. However, it is children who require special attention, because among them there may be those who still need hospitalization [4]. A study of the course of the disease in many countries showed that a small proportion of patients had fever (40-56%), non-productive cough (50%) and signs of "general intoxication".Sore throat/pharyngitis as a symptom of the disease occurs in 40% of children. And COVID - 19 in children often occurs in combination with influenza A and B, M. pneumonia, RSV, RV, etc. A small number of children had upper respiratory tract symptoms such as nasal congestion, rhinorrhea or symptoms such as nausea, vomiting, abdominal pain or discomfort, diarrhea. There have been isolated cases with symptoms of lower respiratory tract involvement in the form of bronchitis and viral pneumonia [6]. At the same time, children often have so-called "covid fingers" (fingers or individual phalanges with signs of cutaneous vasculitis, painful, outwardly similar to frostbite), which do not occur at all in adults. In young children, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) can cause fever with no obvious source and minimal respiratory symptoms [7]. There are recent reports in the literature of papulovesicular rash like varicella, neurological complications such as Guillain-Barré syndrome, strokes, polyneuropathy, and psychiatric complications in some children.

Purpose of the study: The aim was to study the peculiarities of prevention, diagnosis and treatment of a new coronavirus infection in children.

Material and Methods: The following factors have diagnostic value: on the side of blood analysis - the beginning of the disease is registered normal leukocyte counts in children or leukopenia with signs of lymphopenia (transaminases, CPK and myoglobin levels may be elevated in a part of infected children); CRP levels are elevated in most patients, while CRP remains normal (but elevated more often in severe patients than in adults); more severe cases are accompanied by increasing D-dimer levels and ongoing lymphopenia/eosinopenia; biological samples from infected children (nasopharyngeal swabs, sputum, BAL, blood and stool samples (not urine!) contain viral RNA.) contain virus RNA. All patients with suspected or diagnosed coronavirus infection should have a chest CT scan as soon as possible.

Results of the study: In treatment, special attention is paid to symptomatic therapy: if the temperature rises above 38.5, bringing discomfort - physical methods of cooling, if ineffective - paracetamol in age-appropriate dosages. If seizures occur, anticonvulsants are used. Oxygen therapy is carried out through a nasal tube. Non-invasive or invasive mechanical ventilation is performed as indicated, forced ventilation - in exceptional cases. At present, there is no proven antiviral drug against SARS-CoV-2, especially in children. Due to the high risk of superinfection, antimicrobial agents may be indicated in patients with clinical forms of coronavirus infection with pneumonia. In patients in critical condition it is advisable to start one of the antibiotics: protected aminopenicillins, "respiratory" fluoroquinolones (age restrictions should be observed), beta-lactam antibiotics should be administered in combination with macrolides for intravenous administration. The use of Azithromycin in patients with COVID-19 prolonged the Q-T interval, so it is used only in hospitalized patients and with caution. Glucocorticosteroids are administered in a short

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course of 3-5 days, the dosage of methylprednisolone is not more than 1-2 mg/kg/d. Important is symptomatic therapy, active prevention and treatment of complications, secondary infection, support the functioning of all organs and systems.

Conclusions: specific prophylaxis for COVID-19 has not been developed at this time. In addition to wearing a mask, you should wash your hands frequently, cover your mouth and nose when sneezing and coughing, and avoid close contact with anyone with symptoms characteristic of acute respiratory infections or influenza: coughing, sneezing, fever. Children under 3 years of age should NOT wear masks at all (obviously, babies will not be able to describe their breathing difficulties or adjust their breathing difficulties due to the use of a mask)! Scheduled immunizations for children do not stop! On the contrary, primary vaccination of infants should be continued according to routine programs to prevent the threat of outbreaks and epidemics such as measles, polio. Of course, immunization should be carried out in strict compliance with measures to prevent the spread of coronavirus infection. UNICEF Uzbekistan, given the benefits of breastfeeding and the minor role of breast milk in the transmission of other respiratory viruses, advises the mother to continue breastfeeding.

Literature:

1. Расулова Н., Расулов А., Ашурова А. Оценка профилактики рахита и определение уровня 25 (он) d 3 в сыворотке крови в условиях Узбекистана //Журнал проблемы биологии и медицины. – 2016. – №. 4 (91). – С. 86-88.
2. Шарипов Р. Х. и др. Сравнительная оценка эффективности бронходилятаторов при обструктивных состояниях у детей //Достижения науки и образования. – 2019. – №. 11 (52). – С. 91-93.
3. Шарипов Р. Х., Расулова Н. А., Бурханова Д. С. ЛЕЧЕНИЕ БРОНХООБСТРУКТИВНОГО СИНДРОМА У ДЕТЕЙ //ЖУРНАЛ ГЕПАТО-ГАСТРОЭНТЕРОЛОГИЧЕСКИХ ИССЛЕДОВАНИЙ. – 2022. – №. SI-3.
4. Alisherovna R. N., Khaitovich S. R. USE OF OXYBRAL IN PERINATAL DAMAGES OF THE CENTRAL NERVOUS SYSTEM //British View. – 2022. – Т. 7. – №. 1.
5. Fedorovna I. M., Kamiljonovna K. S., Alisherovna R. N. Diagnostic and Therapeutic Methods of Atypical Pneumonia in Children //Eurasian Research Bulletin. – 2022. – Т. 6. – С. 14-17.
6. Fedorovna I. M., Kamildzhanovna K. S., Alisherovna R. N. Modern ideas about recurrent bronchitis in children (literature review) //Eurasian Research Bulletin. – 2022. – Т. 6. – С. 18-21.
7. Khaitovich S. R., Alisherovna R. N. Correction of Neurological Disorders in Children with Respiratory Diseases //Eurasian Medical Research Periodical. – 2022. – Т. 9. – С. 96-99.
8. Rasulova N. A. TREATMENT OF CHILDREN WITH CONSEQUENCES OF PERINATAL DAMAGE TO THE NERVOUS SYSTEM, TAKING INTO ACCOUNT THE PROCESSES OF LIPID PEROXIDATION //SCHOLAR. – 2024. – Т. 2. – №. 4. – С. 182-186.