



VIRAL DIARRHIES CAUSED BY ASTROVIRUSES

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INTRODUCTION

Astroviruses are one of the significant causes of acute viral gastroenteritis in young children. Despite the relatively mild course of the disease, their contribution to the overall structure of infectious diarrhea remains significant. In recent years, there has been a growing interest in astroviruses due to the development of molecular diagnostic methods and the identification of their role in mixed infections.

The etiological factor is a virus belonging to the Astroviridae family, which contains single-stranded RNA with positive polarity. Two genera of viruses parasitize in nature: Mamastrovirus (human) and Avastrovirus (bird).

The virus's peculiarity is the absence of a lipid membrane, which ensures high resistance to the external environment.

The main risk group is children under 2 years old. Transmission routes: fecal-oral, more often through water and food. Seasonality: predominantly winter-spring period. Astroviruses are among the four leading viral agents of diarrhea alongside rotaviruses, noroviruses, and adenoviruses.

Clinical picture

Incubation period: 3-4 days.

Symptoms: watery diarrhea, nausea, vomiting, moderate fever, abdominal pain.

Course: often mild or moderate, complications are rare.

In adults: more often subclinical course.

Diagnostics Polymerase chain reaction (PCR) for detecting astrovirus RNA. Electron microscopy (historically). Enzyme-linked immunosorbent assay (ELISA) for antigen detection. Differential diagnosis: rotavirus, norovirus, adenovirus infections, bacterial diarrhea.

Treatment

Main direction: rehydration therapy (oral solutions of electrolytes).

Symptomatic therapy: enterosorbents, diet №5.

There are no specific antiviral drugs. Antibiotics are ineffective.

Observing personal hygiene rules and monitoring the quality of drinking water and food products are the main methods of prevention. Sanitary measures in children's institutions. Vaccines against astroviruses have not yet been developed.



Comparative characteristics of viral diarrhea

Table 1.

Etiology	Age group	Intensity of flow	Main symptoms	Specific prevention
Rotaviruses	Children under 5 years old	Moderate to severe, dehydration possible	Diarrhea, vomiting, high fever	Vaccination
Noroviruses	All ages	Mild to moderate, flares	Vomiting, diarrhea, abdominal pain	No
Astrovirus	Children under 2 years old	Light-medium	Water diarrhea, moderate intoxication	No
Adenovirus (40.41)	Children	Average	Diarrhea, fever, respiratory symptoms	No

CONCLUSION

Astroviruses are an important, but underestimated factor in viral diarrhea in children. Their diagnosis requires the use of modern molecular methods, and prevention is based on sanitary and

hygienic measures. In the absence of specific therapy and vaccines, the development of programs for early detection and maintenance of therapy remains relevant. Comparative characteristics of viral diarrhea.