



1. ADENOVIRAL INFECTION IN CHILDREN: CASE REPORT

Author: Spînu Tatiana; **Co-author:** Olevschi Olesea

Scientific advisor: Alexeev Tatiana, MD, PhD, Associate Professor, Department of Infectious Diseases, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. Adenoviruses cause acute respiratory infections, clinically characterized by symptoms such as fever, intoxication, and a range of extra respiratory signs, including conjunctivitis, lymphadenopathy, diarrhea, and rarely hepatitis. During October-November 2021, multiple countries reported cases of severe acute hepatitis of unknown etiology (SAHUA) not caused by hepatitis A–E viruses.

Case statement. Patient N., 10-year-old, with a referral diagnosis of Acute Respiratory Infection (ARI) with Abdominal Syndrome, acute hepatitis of unknown etiology. Symptoms included fever (39.2°C), nasal obstruction, seromucous rhinorrhea, nasal snoring, headache, and repeated vomiting. Objective findings: Pale skin, shadows under the eyes. Anterior cervical lymph nodes (1.0 x 1.5 cm), mobile, non-painful. Pharyngeal isthmus hyperemic, palatine tonsils hypertrophied (grade II), without deposits. Liver +1.0 cm. No contact with individuals with liver disease or injury, and toxic factors have been excluded. The referral diagnosis was contradicted by laboratory results: Leukocytosis, lymphopenia, neutrophilia. Blood biochemistry: Hypertransaminasemia (ALT=386.6 U/L; AST=354.7 U/L), CRP=18.14 mmol/L. Viral hepatitis markers: HBsAg - negative, Anti-HBc total - negative, Anti-HBc IgM - negative, Anti-HCV total - negative, HEV IgM, IgG - negative. Other markers: EBV VCA IgM - negative, EBV EA IgG - negative. CMV IgM, IgG - negative. Autoimmune antibodies: ANCA MPO, ANCA PR3, Anti AMA-2, Anti ANA, Anti LKM-1 - within normal limits - autoimmune hepatitis was excluded. PCR analysis (Nasopharyngeal swab) for Adenovirus - positive. Thus, the final diagnosis is Adenoviral infection with rhinopharyngitis. Adenoviral hepatitis. The patient received symptomatic treatment, including fever control, intravenous rehydration, and hepatoprotective therapy, resulting in a favorable outcome.

Discussions. Recent literature states that 65% of adenoviral hepatitis cases occur in children. As of June 17, 2022, the WHO, CDC, and ECDC reported 991 cases in 35 countries. Among these, 50 children required liver transplants and 28 died. The WHO advises laboratory tests to rule out hepatitis viruses A-E in these probable adenoviral hepatitis cases.

Conclusion. Adenoviruses can lead to different infections, sometimes prompting unnecessary antibiotic use. In this case, the patient had a favorable recovery and was discharged after 7 days in satisfactory condition. Globally, testing for Adenovirus is recommended in reported cases of SAHUA. Identifying Adenovirus as a cause can significantly enhance care and, in some cases, save lives.