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**ADENOVIRUS-INDUCED INFECTIOUS MONONUCLEOSIS: CLINICAL FEATURES
AND DIAGNOSTIC CHALLENGES IN YOUNG CHILDREN (CASE REPORT)**

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Relevance. Infectious mononucleosis (IM) is typically caused by Epstein-Barr virus, but adenovirus can also produce a similar syndrome. Recent epidemiological surveillance has documented unprecedented outbreaks of adenovirus serotypes, particularly 7 and 21, causing severe IM-like syndrome in both paediatric and immunocompetent adult populations, challenging long-held clinical assumptions. [Alexander K.C. Leung,2024] Moreover, in infants, the diagnosis is often missed due to atypical presentation and rare reporting.

Aim: to present a case of infectious mononucleosis caused by adenovirus in a 9-month-old infant. To highlight the clinical features, diagnostic challenges, and importance of PCR confirmation in adenoviral mononucleosis in young children.

Materials and methods. A retrospective analysis of the medical records of a 9-month-old male patient hospitalized to the City Children's Infectious Clinical Hospital, Minsk, with confirmed adenoviral infectious mononucleosis.

Results and their discussion. We presented a case of a 9-month-old boy with high fever, loose stools with mucus, and prolonged fever, fluctuating clinical course. He had recently been hospitalized for Influenza A and otitis and completed a course of antibiotics. Laboratory findings showed leukocytosis, neutrophilia, and elevated CRP. Abdominal ultrasound revealed hepatosplenomegaly. Differential diagnosis was challenging due to the young age, recent antibiotic use, and atypical presentation without classic tonsillitis or marked lymphadenopathy. The diarrhea with mucus and marked inflammatory markers initially suggested bacterial enterocolitis, a relapse of the previous bacterial infection or even systemic infection. Testing for Epstein-Barr virus, cytomegalovirus, Yersinia, COVID-19, influenza, HIV, Salmonella, Campylobacter, and Clostridioides difficile was negative. Additionally, blood was tested for 14 pathogens targets using Meningitis/Encephalitis Panel BIOFIRE® FILMARRAY®, which made it possible to detect adenovirus DNA. This case shows that adenovirus mononucleosis in infants can mimic bacterial or gastrointestinal infections, and early PCR testing is essential for correct diagnosis.

Conclusions. Adenovirus should be considered in infantile infectious mononucleosis when common causes are excluded. Early PCR testing is essential for accurate diagnosis and appropriate management.