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## **WHY EBV INFECTION IS BEHIND THE HOSPITALIZATION AT PEDIATRIC ONCOLOGY DEPARTMENT?**

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**Relevance.** Variety of diseases including infectious mononucleosis is correlated with EBV infection. Some symptoms and clinical manifestation could suggest leukemia or lymphoma including lymphadenopathy, fatigue, splenomegaly could suggest leukemia or lymphoma. Abnormalities in blood morphology, especially presence of abnormal lymphocytes in blood smear, also may point the doctor in diagnose an oncological disease. These are the reasons why some patients with mononucleosis, before the proper diagnosis, are sent to the oncological department

**Target:** the purpose of the study was to evaluate the cases of infectious mononucleosis admitted to Department of Pediatric Oncology and Hematology.

**Materials and methods.** We analyzed medical documentation of 22 patients (16 boys, 1-17 years, medium age 5 years and 9 months) admitted to the Department of Pediatric Oncology and Hematology, Medical University of Bialystok with the suspicion of oncological disease, due to symptoms and/or results of blood morphology, diagnosed with infectious mononucleosis. Patients were hospitalized between 2016 and 2018. Data was obtained from electronical documentation system CliniNet. The analysis included clinical symptoms, morphology parameters, blood smear, lactate dehydrogenase activity, inflammatory parameters

**Results and its discussion.** 86% (n=19) of analyzed patients had lymphadenopathy, among them cervical lymphadenopathy was present in 17 patients. Pharyngitis was observed in 12 cases. 41 % (n=9) of patients had increased leukocytosis (mean WBC 14,4 +/- 13,015  $10^9/l$ ). 43% patients has increased lactate dehydrogenase level. Only in 15% of cases inflammatory parameters including CRP were increased. Analysis of blood smear showed: 10 cases of lymphocytosis and 13 cases of neutropenia according to age norms. Positive IgM antibodies against EBV were observed in 100%.

**Findings.** Leukemia or lymphoma could be imitated by infectious mononucleosis because of very similar symptoms and abnormal morphology parameters. In diagnosis of infectious mononucleosis, presence of IgM antibodies against EBV and microscopic evaluation of blood smear can be used to distinguish mononucleosis from lymphoproliferative disease.