

Modern management of leukemoid reactions

D.V. Dobrianskyi¹, G.L. Gumeniuk^{2, 3}, P.F. Dudka¹, I.P. Tarchenko¹, T.I. Kozar^{1, 4}, A.V. Kucharska¹, T.A. Leonova¹

1. Bogomolets National Medical University, Kyiv, Ukraine

2. National Institute of Phthisiology and Pulmonology named after F.G. Yanovsky of the NAMS of Ukraine, Kyiv, Ukraine

3. Shupyk National Healthcare University of Ukraine, Kyiv, Ukraine

4. Kundiiiev Institute of Occupational Health of the NAMS of Ukraine, Kyiv, Ukraine

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ABSTRACT. Leukemoid reaction (LR) is a transient hematological syndrome of reactive nature characterized by persistent leukocytosis of more than 50,000 cells/ μ L. LR can be caused by a variety of factors, including infections, intoxications, malignant neoplasms, severe hemorrhages, or acute hemolysis.

The most common form of LR is neutrophilic myeloid reaction, which occurs in 80-90 % of cases. The diagnosis of LR is based on clinical examination and laboratory test results, including complete blood count with differential leukocyte formula, determination of leukocyte alkaline phosphatase level, aspiration and biopsy of bone marrow.

Differential diagnosis of LR from other forms of leukemia is a challenging task. For this, it is necessary to conduct a thorough examination, including cytogenetic and molecular analysis of peripheral blood and bone marrow granulocytes. Despite certain advances in the differential diagnosis of LR, the mortality rate of patients in the world remains high, which requires the attention of doctors of various profiles.

Treatment of LR depends on the underlying cause that caused it. The article proposes a diagnostic and treatment algorithm for LR in the case of its toxico-infectious origin.

KEY WORDS: leukemoid reaction, chronic myelogenous leukemia, chronic neutrophilic leukemia.