

Abstract

The leukocyte differential count is important and frequently demanded laboratory examination, even nowadays.

Until recently, there was a possibility to execute this laboratory examination only using the microscope. It was time-consuming and it required the continuous presence of specialists – cytologists– in the laboratory.

The new generation of hematological analyzers enables to execute the analysis of peripheral blood smears easier. In practice, there is being used the new digital morphological analyzer CellaVision DM96 by Sysmex corp. since the year 2004.

In the experimental file, there was 62 samples of peripheral blood examined from children and adult patients. Blood counts have been established on Sysmex XE-5000 analyzer. Differential counts of leukocytes were examined on CellaVision DM96 analyzer and then using the microscope Olympus BX41TF. The results were compared and statistically evaluated. Gained results proved sameness among the most of the patients. It is also necessary to check qualitatively abnormal samples under the microscope, especially when we are talking about the first detection. It implies that classical microscope is still essential during the analysis of pathological findings.