C6. **DETECTION OF MALIGNANT CELLSIN CEREBROSPINAL FLUID, PLEURAL- AND PERITONEAL EFFUSION BY FLOWCYTOMETRY**

Köpeczi Judit Beáta, Benedek Lázár Erzsébet, Kakucs Enikő, Tunyogi Aliz, Benedek István
Clinical Hematology and BMT Unit Târgu-Mureş, Romania

Immunophenotyping by multiparametric flowcytometry (MFC) is indispensable in diagnosis and follow-up of hematological malignancies. MFC allow to evaluate multiple antigens simultaneously making it possible to identify and characterize the malignant cell population in cerebrospinal fluid, pleural and peritoneal effusion.

We present 3 cases in which immunophenotyping by flowcytometry was helpful in detection of malignant cells from different body fluids other than peripheral blood or bone marrow.

In case 1 – a 34 year old female patient with treated acute lymphoblastic leukemia (ALL) – the immunophenotyping from cerebrospinal fluid identified the relapse in central nervous system (CNS) by the presence of the lymphoblasts positive for CD19, CD10, CD22 and Cd34.

In case 2 – a 46 year old male patient with plasmocytoma localized on vertebral column - immuno-phenotyping from pleural effusion revealed malignant plasma cells negative for CD45, CD19, CD20 and positive for CD38, CD138, Cd56.

In case 3- a 3 year old boy – the primary diagnosis of Burkitt-lymphoma was made on MFI of ascitic fluid. Monoclonal Kappa+ B-cell population was identified with the following antigenic profile: Cd19+, CD20+, CD10+, CD22+, CD79b+, CD38+, HLA-DR+, CD5-, CD23-, FMC7-, CD200-, CD27-, LAIR1-, CD103-, CD11c-, CD34-.

Immunophenotyping by multiparametric flowcytometry could improve the efficiency of detection of CNS involvement and it is an important and rapid method to identify and characterize the malignant cells in serous effusion such as pleural and peritoneal effusion.