

**Immunophenotype study by flow cytometry in patients with acute myeloblastic and lymphoblastic leukemia in Bu Ali Educational and Medical Center of Ardabil province from September 2010 to October 2018**

**Abstract**

Background and Aim: Leukemia is one of the most common types of malignancy in children, with an approximate prevalence of 40 people per million people, accounting for about 30% of all cancers in children under 15 years.

**Aim:** Due to the high rate of this disease, a reliable method is necessary for the correct diagnosis of the disease. In this dissertation, we have studied immunophenotype by flow cytometry in patients with acute myeloblastic and lymphoblastic leukemia in Bu Ali center of Ardabil.

**Materials and Methods:** In this study, which was performed at Bu Ali Ardabil Medical Center, 131 patients who were admitted with suspected leukemia and bone marrow biopsy were performed, one sample was sent for pathology and one sample was sent for flow cytometry. And the results were included in the study.

**Background :** The highest frequency of the disease was in all pre-B cell age groups and the highest age of onset was the same as AML in 1 to 10 year olds. Based on the frequency distribution of acute leukemia based on flow cytometry, in our study 107 patients (81.7%), ALL and 19 patients (14.5%) AML and 1 case of Hodgkin's lymphoma (0.8%), 1 case of CML (0.8%) and 3 cases (2.3 %) Was reported normal.

**Results:** A reliable method for the correct diagnosis of leukemia as one of the most common types of malignancy in children is essential. In our study, 52.7% of patients are pre-cell ALL in terms of flow cytometry, of which 90.08% are consistent with pathology and 9.92% are inconsistent. Due to the high rate of 9.92%, inconsistencies between diagnostic methods of flow cytometry and

pathology should be considered Perform a more accurate diagnostic procedure. Also, due to the weakness of flow cytometry in the diagnosis of AML M4 and AML M6, other methods such as cytology should be considered to diagnose these types.

**Keywords:** Leukemia-Flow cytometry-Children-Bouali Hospital