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Demographical study of acute lymphoblastic leukemia in Basrah

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Abstract--Background: Leukemia is a complex and biologically separate group of hematological cancer. Aim: Studying the association between demographical factors, hematological tests with type of ALL. Method: A cross-sectional study conducted during the period between 2020 and 2022, fifty children with acute lymphoblastic leukemia (ALL) and their ages ranged from < 2 year - 15 years have been included. The patients diagnosed by specialist physicians based on clinical, histological and immunophenotypic procedures carried out locally at the Oncology Unit in Basrah Children Specialty Hospital. The cases of ALL distributed according to type of ALL, sex, age groups, and residency. Hematological parameters were studied in all those 50 patients before and after chemotherapy; Hb, platelets, WBC, peripheral blood blasts, and bone marrow blasts. Patient who showed WBC count equal to 50.000/ mm³, considered as standard-risk patient and who showed WBC count > 50.000/ mm³ considered as high-risk patient. Results: Out of 50 ALL patients, 45 were B-ALL and 5 were T-ALL. Males with B-ALL were 55.6% and females were 44.4% with no statistical differences. Males with T-ALL (80.0%) showed higher percentage than females (20.0%) with no statistical significant. Regarding to distribution of age groups in these two types of ALL, age group (2-5 y) showed higher frequencies in T-ALL (60.0%) The age group (2-5 Y) showed high frequency in B-ALL (48.9%). Age group (<2 Y) showed (20.0%) with B-ALL The age group (6-12 Y) showed high frequency in T-ALL (40.0%) while B- ALL was (22.2%). Age group (13-15 Y) showed (8.9%) B-ALL Type of leukemia and age groups showed no statistical significant. Distribution of ALL patient in urban regions