RISK FACTORS'IMPACT ON THE OVERALL SURVIVAL OF ACUTE LYMPHOBLASTIC LEUKEMIA ADULT PATIENTS IN FORTALEZA

FMCP Pessoa [a], DS Oliveira [a,b], CB Machado [a], IV Barreto [a], BMD Nogueira [a], RM Ribeiro [b], FAC Silva [b], MOM Filho [a], MEA Moraes [a], CA Moreira-Nunes [a,c]

[a] *Department of Medicine, Núcleo de Pesquisa e Desenvolvimento de Medicamentos (NPDM), Universidade Federal do Ceará (UFC), Fortaleza, Brazil*
[b] *Department of Hematology, Hospital Geral de Fortaleza (HGF), Fortaleza, Brazil*
[c] *Molecular Biology Laboratory, Central Unity, Grupo Clementino Fraga, Fortaleza, Brazil*

Acute Lymphoblastic Leukemia (ALL) is a hematological neoplasm characterized by clonal proliferation of lymphoblasts, being one of the most common types of leukemia in children and young adults, with a worse prognosis when manifested in adult patients. Despite advances in treatment, overall survival (OS) varies widely, influenced by several risk factors, such as cytogenetic characteristics, age, and disease subtype. This study seeks to analyze the impact of these factors on the overall survival of ALL patients, highlighting the importance of a personalized therapeutic approach to improve clinical outcomes. This retrospective study included 53 patients diagnosed with ALL treated at the Hospital Geral de Fortaleza (HGF), which is the largest oncohematology outpatient clinic in the state of Ceará. Patients were stratified according to the World Health Organization (WHO) guideline. The OS was assessed using Kaplan-Meier curves for each risk group and its' time was defined as the period from diagnosis to death or the last follow-up. Statistical analyses were performed to compare the survival curves between the different risk groups, using the log-rank test to determine statistical significance. Of the 53 analyzed patients, 45 had B-ALL (median age of 40 years) and 8 had T-ALL (median age of 28 years). In all, 23 patients were considered to have high-risk cytogenetic and 30 were over 35 years old. The analysis showed that patients without high-risk cytogenetics (20% in 40 months) had a significantly lower survival compared to those with high-risk cytogenetics (50% in 40 months). This may seem counterintuitive, as high-risk features are expected to be associated with a worse prognosis. Perhaps this is due to the fact that patients with high-risk cytogenetics can receive more intensive or innovative treatments, leading to a better initial response and, consequently, longer survival. Age proved to be an important prognostic factor, with older patients having significantly lower survival (25% in 40 months). This is consistent with the literature, where it is known that advanced age is a risk factor for a worse prognosis in ALL, due to factors such as higher rates of comorbidities and resistance to treatments. Overall, we observed that patients with T-ALL showed slightly better survival compared to patients with B-ALL, particularly in the first 10 months. This may be explained because T-ALL may have a more favorable initial response to chemotherapy treatment compared to B-ALL. This study's results underline the importance of a personalized approach in the ALL treatment. It is evident that factors such as cytogenetics, age, and ALL subtype have a significant impact on patient overall survival. Stratification based on these factors can help in the selection of more appropriate treatments and in the definition of more accurate prognosis.

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CLINICAL CHARACTERISTICS AND PROGNOSIS OF ACUTE PROMYELOCYTIC LEUKEMIA PATIENTS IN FORTALEZA

FMCP Pessoa [a], DS Oliveira [a,b], IV Barreto [a], PHM Alencar [b], KMC Albuquerque [b], RM Ribeiro [b], MP Gomes [b], MOM Filho [a], MEA Moraes [a], CA Moreira-Nunes [a,c]

[a] *Department of Medicine, Núcleo de Pesquisa e Desenvolvimento de Medicamentos (NPDM), Universidade Federal do Ceará (UFC), Fortaleza, Brazil*
[b] *Department of Hematology, Hospital Geral de Fortaleza (HGF), Fortaleza, Brazil*
[c] *Molecular Biology Laboratory, Central Unity, Grupo Clementino Fraga, Fortaleza, Brazil*

Acute Promyelocytic Leukemia (APL) is a specific and highly curable form of acute myeloid leukemia, characterized by the translocation t(15; 17) which results in the gene fusion *PML::RARE*. This fusion blocks the normal differentiation of promyelocytes, leading to the accumulation of immature cells. Typical treatment includes trans-retinoic acid (ATRA) and arsenic, which induce leukemic cell differentiation and result in high cure rates. This study aims to evaluate clinical and laboratory characteristics of patients with APL as well as investigate prognostic factors associated with survival. We analyzed data from 20 patients diagnosed with APL at the Hospital Geral de Fortaleza (HGF), which is the largest oncohematology outpatient clinic in the state of Ceará. Mann-Whitney tests were applied to evaluate the clinical data. Overall survival analysis was performed using the Kaplan-Meier method, stratifying patients by cytogenetic risk, according to the World Health Organization (WHO) and European LeukemiaNet (ELN) guidelines. Among the analyzed patients, the median age was 37.5 years (20-68 years). At the time of diagnosis, the patients had a mean hemoglobin count of 7.35 g/dL, White Blood Cell (WBC) Count above 10,000/mm^3, and platelets below 50,000/mm^3. The average percentage of blasts in the bone marrow was 86%. The mean overall survival of the patients studied was 8.18 months. The Kaplan-Meier analysis indicated that patients stratified as high-risk had a slightly higher probability of survival over time compared to low-risk patients. Overall survival over time was analyzed, showing a high overall survival probability for both groups. The data indicate that leukocyte and platelet counts are factors that demonstrated statistical significance among the groups studied, potentially influencing the prognosis of APL patients. Overall survival analysis suggests that risk stratification may be a useful tool in prognostic assessment and in defining treatment strategies. Additional studies with larger sample