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614.ACUTE LYMPHOBLASTIC LEUKEMIAS: THERAPIES, EXCLUDING TRANSPLANTATION AND CELLULAR IMMUNOTHERAPIES

Comparison of Two Therapeutic Approaches (Pediatric vs. Adult) for Treating Acute Lymphoblastic Leukemia. Experience of Two Centers in Mexico City

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Background: Chemotherapy is the most frequently used strategy in treating adult acute lymphoblastic leukemia (ALL) in conjunction with monoclonal antibodies and tyrosine kinase inhibitors. One of the primary considerations is the type of treatment based on pediatric inspiration regimens (CALGB10403, BFM, St Jude XIII) or regimens for adult patients (HyperCVAD), with pediatric regimens being those that have improved the prognosis in the young adult population. Along with this scheme, strict monitoring through measurable residual disease (MRD) is the main dynamic prognostic factor since its positivity is associated with a greater risk of relapse. We aimed to compare the effect on the clinical prognosis of two treatment regimens based on a pediatric regimen versus an adult regimen in patients with ALL. Material and methods: A retrospective, observational, descriptive study of 5 years of follow-up was carried out in patients with ALL at the Hospital General de México and the Hospital Regional de Alta Especialidad de Ixtapaluca, classifying the treatment into two types of regimens (adult regimen vs. pediatric inspiration) evaluating the impact on survival as well as the association of different factors both to diagnosis and measurable residual disease (MRD). Results: A total of 450 patients were studied, 50.4% (n=227) were male, and 49.6% (n=223) were female. 21.1% (n=95) received a pediatric-inspired protocol (CALGB-10403), and 78.9% (n=355) received an adult protocol (Hyper-CVAD). 71.8% (n=323) were considered high risk, and 8.4% (n=38) were identified with Philadelphia positive ALL. 94.4% had a B-cell precursor phenotype ALL, and 8.7% had a nervous system infiltration at diagnosis. Overall, 60.4% integrated complete remission (n=272), with 31.3% (n=141) post-induction MRD negative. The percentage of negative MRD was higher in the pediatric protocol (38.5% vs 29.6%, p=0.000). Relapses occurred in 34% (n=153), and 21.3% (n=96) had a relapse to the central nervous system. Survival at 1000 days of follow-up was 32%, with significant differences in favor of the pediatric protocol (Log Rank 0.000) with 42% at 1000 days (Figure 1), the use of MRD as an impact tool with the prognosis (0.000) (Figure 2), the presence of a post-induction MRD+ (0.000) and high risk (Log-Rank 0.004) were the significant variables. Conclusions: The prognosis of a patient with ALL depends on the type of treatment. The prognosis is favorable when treated with a pediatric protocol. The detection of MRD by flow cytometry is the best follow-up tool, and its positivity decreases survival in adults with ALL.



Figure 1

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