MSC lines. Increased expression of the BCL2 gene and cytoplasmic survivin was also observed in MSCs treated with 7-KC. In conclusion, it is possible to observe differences in the expression of ABC transporters and LRP between CTM-S and CTM-D strains. Furthermore, at the same concentrations of 7-KC and Triol used, the observed effect was different between MSC-S and MSC-D, which demonstrates that there are different mechanisms between mesenchymal stem cell lines. In summary, our results are characteristic of the metabolic action of the oxysterols 7-KC and Triol on MSCs.

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MOLECULAR CHARACTERIZATION OF DIFFERENT GENE FUSIONS ASSOCIATED WITH ACUTE LYMPHOBLASTIC LEUKEMIA IN CHILDREN FROM THE BRAZILIAN AMAZON

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Objective: Acute Lymphoblastic Leukemia (ALL) is classified according to its genetic abnormalities, which are associated with the clinical and biological characteristics of the disease. The detection of gene fusions assists in diagnosis, risk stratification, and targeted therapy. This study aims to evaluate the status of gene fusions in pediatric ALL patients from the Brazilian Amazon and their association with known hematological parameters. **Materials and methods:** The research was approved by the ethics committee under number 4.040.805 and included a total of 160 patients diagnosed with ALL at the Octávio Lobo Children's Oncology Hospital during the period from 2017 to 2023. Clinical data (leukometry, platelets, and hemoglobin) and epidemiological data (gender and age) were collected from the hospital's database system. For the analysis of gene fusions, c-DNA was obtained for the detection of molecular biomarkers by PCR using specific primers. Agarose gel electrophoresis was performed to visualize the PCR products. Finally, Sanger Sequencing was carried out to confirm the PCR results. For qualitative variables, descriptive statistics were used, determining absolute and percentage frequencies. For quantitative variables, median and standard deviation values were calculated according to the variables under study. The Kruskal-Wallis test was performed to test the association of the presence of one of the gene fusions (BCR::ABL, TCF3::PBX1, KMT2A::AFF1, ETV6::RUNX1 and SIL::TAL) with the clinical data, adopting a p-value ≤ 0.05 as significant. Statistical analyses were performed using RStudio 12.1 software. **Results:** Regarding gene fusions, 21% of patients had the TCF3::PBX1 fusion, 19% ETV6::RUNX1, 11% BCR::ABL, 3% KMT2A::AFF1, 2% SIL::TAL, and 44% had none of the studied fusions. 61% of the patients were male and 39% female, with a median age of 6 years. Regarding clinical data, the patients had a median white blood cell (WBC) count of 13,150/mm^3; a median platelet count of 36,000/mm^3; and a median hemoglobin level of 8 g/dL. The Kruskal-Wallis test revealed a significant statistical difference between gene fusions and white blood cell count (p-value = 0.0024), and Dunn's post-test showed that in TCF3::PBX1, the WBC count is significantly higher mainly compared to ETV6::RUNX1 (p-value = 0.007). **Discussion:** Studies have reported ETV6::RUNX1 as the most frequent fusion, but this work found TCF3::PBX1 as the most frequent find, which may be explained by the highly mixed population of the Amazon, supporting the existence of ethnic differences. Other studies found significant statistical differences in white blood cell count between the TCF3::PBX1 fusion and others, which corroborates the findings of this study, indicating that this molecular biomarker has a poor prognosis and is characterized by a white blood cell count above 50,000/mm^3, which was found in about 35% of the patients in this study. **Conclusion:** In the study, the frequency of the TCF3::PBX1 fusion was observed to be relatively higher than what is reported in the literature. The TCF3::PBX1 fusion leads to the activation of genes encoding proteins with malignant potential, and that the fusion showed a statistical difference between groups regarding white blood cell count, which is used as a risk classification according to the National Cancer Institute.

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RESGATE À BASE DE VENETOCLAX INDUZ MAIS RESPOSTA QUE 7+3 EM LMA NO SUS

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Objetivos: O objetivo primário é reportar a taxa de mortalidade global aos 30 dias. Os objetivos secundários são avaliar a taxa de mortalidade aos 30 dias por tratamento e as taxas de mortalidade aos 60 dias, sobrevida global (SG), tempo para resposta completa (TRC) e duração da resposta RC (DRC), taxa de remissão completa à indução (RC), globais e por tratamento; bem como a taxa de RC ao resgate com esquema à base de venetoclax (VEN) e tempo para resposta com esquema à base de VEN no resgate. **Métodos:** Estudo retrospectivo, a partir da revisão de prontuário eletrônico, de 53 pacientes que foram sequencialmente diagnosticados com leucemia mieloide aguda (LMA) no Hospital Universitário de Brasília (HUB), entre novembro de 2018 e janeiro de 2024. Destes 10 foram excluídos devido ao diagnóstico de leucemia promielocítica aguda e 4 por terem linhagem ambígua. **Resultados:** Incluídos 39 pacientes, mediana de idade de 56,7 anos