- rs202240722, T558M - rs192850609, L561F - rs372174859, E566K - rs41315618, D574V - rs200177995, R580W - rs202150907, R580Q - rs9282565, A586G - rs35810889, R588C - rs199807788, R593C - rs201641280, G774R - rs200693386, R789Q - rs199607036, C956Y - rs201396865, V1040A - rs189559454, G1055R - rs201389507, G1063A - rs374713722, A1067T - rs201352004, S1072R - rs368578071, S1077T - rs61607171, T1078P - rs199924747, R1085W - rs149518139, R1085Q - rs202002337, R1188H - rs200823786, R1188G - rs199509670, A1205T - rs61122623, E1211A - rs200753045, R1233H - rs201280497 foram considerados deletérios por pelo menos sete ferramentas do consenso PredictSNP1.0. Além disso, 73% (n = 30) das alterações de aminoácidos são capazes de diminuir a estabilidade da proteína. **Discussão:** Das quarenta e uma variantes identificadas, trinta foram associadas a uma alteração na capacidade da P-gp de expulsar medicamentos das células leucêmicas. Essas modificações podem resultar em uma menor eficácia dos agentes quimioterápicos, contribuindo para a resistência observada em muitos casos de LMA. A presença de múltiplas variantes sugere uma complexa interação entre os polimorfismos do *ABCB1* e a resposta ao tratamento, destacando a necessidade de abordagens personalizadas na terapia de LMA. **Conclusão:** A análise *in silico* do gene **ABCB1:** demonstrou que variantes genéticas podem impactar significativamente a resistência a medicamentos em LMA. Essas descobertas sublinham a importância de considerar os polimorfismos do **ABCB1:** na personalização dos regimes de tratamento para melhorar a eficácia da quimioterapia e otimizar o manejo dos pacientes com LMA. A integração dessas informações na prática clínica pode ajudar a superar os desafios associados à resistência medicamentosa e melhorar os resultados terapêuticos.

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FLT3-ITD VARIANT IN ACUTE MYELOID LEUKEMIA PATIENTS TREATED AT A REFERRAL HOSPITAL IN THE STATE OF AMAZONAS

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Introduction: Acute Myeloid Leukemia (AML) is a hematological disease marked by clonal proliferation neoplasm cells of the myeloid lineage accompanied by genetic alterations. Variants in the *FLT3* gene (FMS-like tyrosine kinase 3), as internal tandem duplication mutations (*FLT3-ITD*), frequently observed in 15-35% AML cases, this variant is associated with unfavorable prognosis in the treatment of the AML. *FLT3-ITD* variant is related with origin of aggressive and resistant clones, therefore the importance of the screening of the *FLT3-ITD* in the diagnosis and treatment of the AML. **Objective:** In this study, we investigate of the *FLT3-ITD* variant in AML patients treated at Foundation HEMOAM. **Materials and methods:** Samples of bone marrow from 43 patients were analyses in the AML diagnosis. RNA extraction was performed and screening of the *FLT3-ITD* variants were detected by conventional Polymerase Chain Reaction (PCR). The amplified products were separated by electrophoresis with a 2% agarose gel. The size identification of the insertion ITD was performed by capillary electrophoresis. Here, we developed a low-cost assay and with high specificity, accord with other electrophoresis methods. **Results:** In this study, there was a high prevalence of female patients, 25 (58.14%), with age median of 53 years (34 – 71). Among 43 patients analyzed, 7 (16.3%) were *FLT3-ITD* positive. The size ITD fragments identified were approximately 27-81 bp, 4 patients presented ITD of 81 bp. The amplified product intensity was analyzed in agarose gel by application ImageLab software, the ITD fragments were correlated with Variant Allele Frequency (VAF) present range of 11% to 60%. **Discussion:** Our study highlights a higher prevalence of AML patients female, when related male subjects more prevalent in other studies. This divergence may be attributed to genetic, environmental and lifestyle conditions specific to our population. In this study, the *FLT3-ITD* present a frequency of 16.3%, result similar with other Brazilian studies. Ther insertions of ITD were 27 to 81 bp, according with data of previous studies, size ranging from 3 to over 400 bp. Different studies have related ITD larger inserts, as 81 bp, are associated with worse prognosis and higher death rates (60% of the cases). **Conclusion:** This study revealed distinct characteristics from the Amazonas patients when compared with global AML data, as reported a younger population and prevalence of female patients. Accordingly, the frequency of *FLT3-ITD* was expected, the detection may favor the patient treatment, we highlight the importance of the screening of the ITD in AML patients.

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EVOLUÇÃO CLÍNICA E PROGNÓSTICO DE LEUCEMIA MIELOIDE AGUDA COM INVERSÃO DO CROMOSSOMO 16: RELATO DE CASO COM RECIDIVAS E COMPLICAÇÕES.

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Objetivo: Relatar o caso de um paciente de 23 anos, acompanhado pelo o Hospital de Transplantes Dr. Euryclides de Jesus Zerbini diagnosticado com LMA contendo uma inversão pericêntrica do cromossomo 16. **Material e métodos:** Relato de caso com base nos dados copilados no prontuário do paciente durante 6 anos e confrontar com dados da literatura. **Resultados:** No ano de 2006, um paciente 23 anos, sexo masculino, apresentou gengivohemorragia, aumento de gânglios na