prognostico dos pacientes idosos em geral é prejudicado pelo fato de não suportarem quimioterapia intensiva e não poderem ser submetidos a Transplante de Medula Óssea, sendo atualmente as melhores alternativas as associações de Venetoclax com Azacitidina ou Citarabina. Conforme publicação suplementar da revista Blood referente as apresentações orais do ASH de 2022 o acompanhamento de longo prazo do ensaio clínico Viale-a, que avaliou a associação de Venetoclax e Azacitidina para pacientes com LMA, em um acompanhamento médio de 43,2 meses, a sobrevida global mediana foi de 14,7 meses, mesmo em pacientes com doença residual mínima indetectável a sobrevida global mediana foi de 34,2 meses. Aos 50 meses de acompanhamento menos de 20% dos pacientes que participaram do estudo estavam vivos. **Conclusão:** O caso descrito chama atenção pois o paciente em questão permanece com ótima qualidade de vida após 50 meses de seu diagnóstico, extrapolando os dados de sobrevida global do estudo pivotal de aprovação do protocolo empregado.

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AD80 HAS HIGHER POTENCY COMPARED TO CLINICALLY USED FLT3 INHIBITORS IN FLT3-ITD AML CELLS

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Objectives: Acute myeloid leukemia (AML) with *fms-like tyrosine kinase 3* (FLT3) mutations account for around 30% of all AML cases. FLT3 is a transmembrane receptor with important roles for hematological cells. The mutations will cause overactivation of signaling pathways such as PI3K, RAS, and STAT5. AD80 has been described as a multikinase inhibitor and previous data from our group has shown that treatments with AD80 decreased cell proliferation and clonogenicity, induced apoptosis, and inhibited the activation of different proteins. The present study aims to further investigate the effects of the multikinase inhibitor. **Materials and methods:** For the study, AML FLT3-ITD cell lines MV4-11 and MOLM-13 were utilized. Flow cytometry was used to analyze apoptosis and cell cycle progression. Gene expression was performed by qPCR analysis and molecular docking was performed using the softwares Autodock Vina and Gold, and viability comparison between AD80, quizartinib, and midostaurin was performed by MTT assay. **Results:** AD80 treatments resulted in an increased subG1 cell population, confirming previous findings about it inducing cell death. The apoptosis assay using chloroquine was performed to investigate the autophagy found in early results, and it showed that the inhibition of autophagy causes apoptosis. AD80 decreased the expression of genes related to cell survival such as cyclins and increased the expression of genes related to cell cycle arrest, apoptosis, and autophagy. Lastly, the molecular docking showed that AD80 binds to the FLT3 protein on the same site as the drug quizartinib. Treatments with AD80 were also more effective in reducing cell viability than quizartinib and midostaurin treatments (all $p < 0.05$). **Discussion:** Treatments as low as 0.64 nM were able to induce cell death and increase subG1 populations, evidenced by cell cycle analysis. Previous results confirmed that AD80 induced autophagy in FLT3-ITD cell lines, so chloroquine was used as an autophagy inhibitor to further investigate the process. Similarly to other FLT3 inhibitors, results showed that autophagy happens as a cell protector, hence when it is inhibited the apoptosis levels increase. qPCR confirmed what was found in the protein expression analysis from previous data, in which pathways related to cell survival and cell proliferation were downregulated and pathways related to cell cycle arrest, cell death, and autophagy were overexpressed. When it comes to the protein binding analysis, AD80 was able to form bonds with more residues in the site of action when compared to quizartinib, which could justify that AD80 was nearly twice as potent as quizartinib in both cell lines. **Conclusions:** AD80 exhibits antineoplastic effects affecting different cell processes, highlighting its potential as a treatment for FLT3-ITD AML patients. **Funding:** Supported by FAPESP, CNPq, and CAPES.

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DOENÇA RESIDUAL MENSURÁVEL POR CITOMETRIA DE FLUXO MULTIPARAMÉTRICA É VIÁVEL E DETERMINA RISCO PROGNÓSTICO DINÂMICO EM PACIENTES DE UMA COORTE BRASILEIRA DE LEUCEMIA MIELOIDE AGUDA

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