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SECONDARY ACUTE MYELOID LEUKEMIA FOLLOWING MYELOPROLIFERATIVE NEOPLASM: A CASE REPORT

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Introduction: Polycythemia Vera (PV) is a myeloproliferative neoplasm (MPN) characterized by clonal proliferation of hematopoietic stem cells, which may progress to secondary acute myeloid leukemia (sAML). This study aimed to report the case of a patient diagnosed with PV in 2014, who progressed to sAML in 2024. This study will emphasize clinical presentation, laboratory findings, and disease course through a retrospective review of electronic medical records. **Case report:** On September 18, 2014, a 52-year-old male patient with a medical history of hypertension was admitted for preliminary examination. The patient reported symptoms of dizziness and generalized paresthesia. The laboratory data yielded the following findings: RBC: 9,55 million/mm^3; Hemoglobin (Hb): 19.3 g/dL; hematocrit (HcT): 64.7%; white blood cells (WBC): 19600/mm^3 and platelets: 636000/mm^3. BM histopathology revealed marked hypercellularity of the erythroid lineage with mild maturation arrest. The granulocytic series exhibited preserved cellularity and maturation. Genetic testing confirmed the presence of the rs77375493 (Val617Phe) variant, supporting the diagnosis of PV according to the WHO criteria. The patient underwent therapeutic phlebotomy, resulting in symptomatic improvement, and initiated on oral hydroxyurea at a dose of two tablets per day, with subsequent clinical improvement. Laboratory data demonstrated the following: (RBC: 5,9 million/mm^3; Hb: 15.9 g/dL; Hct: 48.4%, WBC: 9940/mm^3 and platelets: 385000/mm^3). The patient continued therapy with hydroxyurea. In October 2024, the patient presented with severe asthenia, fatigue, fever of 38°C, and splenomegaly. The laboratory data revealed: (Hb: 10,4 g/dL, WBC: 8620/mm^3, Blasts: 10% and platelets: 1007000/mm^3). Subsequent bone marrow aspirator analysis employing the flow cytometry revealed a percentage of 20.8% blasts with the following immunophenotypes: The presence of positive markers, including CD117/CD13/CD14/HLA-DR and CD33. The AML panel exhibited a negative result for the following rearrangements: AML1-A/ETO t(8;21)/PML/RARA t(15;17)/CBFB-A/MYH11 (inv16)/BCR-ABL p210 t(9;22). Cytogenetic analysis revealed a normal karyotype in five metaphases, thereby confirming the diagnosis of sAML arising from a NPM. Treatment was initiated with two cycles of the 7+3 protocol (cytarabine + daunorubicin), but no response was observed. Consequently, a protocol for refractory disease protocol was initiated, comprising three cycles of FLAG-IDA (fludarabine, cytarabine and idarubicin). At the conclusion of the treatment regimen, laboratory revealed the following findings: Hb: 10,8 g/dL, platelets: 297000/mm^3, WBC: 9890/mm^3. Additionally, the BM examination revealed that it was in remission, with a blast percentage of 0.4%. The patient is clinically stable, with current complaints limited to orthopedic issues. **Conclusion:** Laboratory analysis is crucial for monitoring PV progression. In the early stages of PV, there is evidence of clonal proliferation of the erythroid, platelet, and leukocyte lineages. This distinguishing PV from AML, which presents anemia, neutrophilic leukocytosis, blasts, fever, and splenomegaly. It is important to note that thrombocytosis has been shown to increase the risk of thrombosis. Secondary AML is a serious complication with poor prognosis and treatment resistance, especially when associated with thrombocytosis. These factors highlight the necessity for rigorous clinical and laboratory surveillance to facilitate timely intervention.

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SEGURANÇA E TOXICIDADE DA QUIMIOTERAPIA DE CONSOLIDAÇÃO COM CITARABINA AMBULATORIAL EM PACIENTES COM LEUCEMIA MIELOIDE AGUDA E IMPACTO DA PROFILAXIA ANTIMICROBIANA

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Introdução: A terapia pós-remissão com citarabina em doses intermediárias ou altas (AraC) é essencial no tratamento da leucemia mieloide aguda (LMA) e normalmente administrada em regime hospitalar devido à alta mielotoxicidade. Em alguns centros, a infusão ambulatorial tem sido adotada por limitações de recursos, mas há poucos dados que validem sua segurança. No Brasil, com escassez de leitos, o tratamento ambulatorial é desejável, e a eficácia da profilaxia com quinolonas neste contexto ainda é pouco clara. **Objetivos:** Avaliar, em pacientes com LMA submetidos a ciclos de consolidação