

Therapy-Related Acute Myeloid Leukemia in a 70 Year-Old Male Post-Treatment for Multiple Myeloma: A Case Report

Abstract

- **Background:** Therapy-related acute myeloid leukemia (AML) is a severe and often fatal complication arising from the treatment of primary malignancies, particularly following chemoradiotherapy. Patients who develop this condition typically face a poor prognosis, with a median survival of only six months. Traditional chemotherapy regimens are often ineffective, leading to a reliance on allogeneic hematopoietic cell transplantation (HCT) as a recommended treatment option. This case report highlights the clinical course of a 70-year-old male who developed therapy-related AML following treatment for multiple myeloma, emphasizing the challenges associated with managing this secondary malignancy.
- **Case Presentation:** We report a 70-year-old male, initially diagnosed with multiple myeloma, was treated with the VRD protocol and lenalidomide maintenance. Two years later, he developed worsening symptoms, including fatigue, bone pain, and pallor. Lab results revealed a high blast percentage (66%), leading to a diagnosis of therapy-related acute myeloid leukemia (AML). The patient was subsequently treated with CPX-351, a regimen approved for therapy-related AML.
- **Conclusion:** This case highlights the significant challenges associated with therapy-related AML following treatment for multiple myeloma. The progression from multiple myeloma to AML underscores the need for vigilant monitoring and the importance of early intervention with targeted therapies such as CPX-351. This case also emphasizes the necessity for continued research to improve outcomes and develop more effective management strategies for patients with secondary malignancies like therapy-related AML.

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