

FROM CML TO FOLLICULAR LYMPHOMA AND CNS-ONLY ACUTE LYMPHOBLASTIC LEUKEMIA: A UNIQUE CASE OF HEMATOLOGIC MALIGNANCY PROGRESSION

Miranda Hoti

Kosovo

A 51-year-old female patient was initially admitted with leukocytosis and symptoms of fatigue and malaise. Peripheral blood smear revealed left-shifted leukocytosis, and subsequent bone marrow biopsy, genetic testing, and PCR confirmed chronic myeloid leukemia (CML) with BCR-ABL positivity. She began treatment with imatinib but showed inadequate molecular response after one year (PCR 40%). Therapy was switched to nilotinib.

Shortly after initiating nilotinib, the patient developed cervical and axillary lymphadenopathy. Lymph node biopsy confirmed follicular lymphoma. Despite accompanying unilateral abducens nerve palsy, imaging and CSF cytospin were negative for CNS involvement. The patient underwent six cycles of R-CHOP and achieved remission. Maintenance therapy with nilotinib and rituximab was initiated.

After two maintenance doses, the patient presented with fever, fatigue, strong headache, and recurrent abducens nerve palsy. CSF analysis revealed lymphoblasts with immunophenotyping consistent with acute lymphoblastic leukemia (ALL) localized to the CNS. Bone marrow and genetic mutations. Absence of mutations in exons 4, 5, 6, and 7 of the ABL gene studies ruled out systemic leukemia. Intrathecal triple therapy (methotrexate, cytarabine, dexamethasone) was administered, followed by systemic MATRix chemotherapy to prevent marrow infiltration.

After two MATRix cycles, the patient showed no malignant cells in CSF and no evidence of disease on PET-CT. She completed two additional MATRix cycles and achieved complete remission.