Leukemic Mantle Cell Lymphoma

Aekta Neha, Amar Ranjan, Pranay Tanwar, Harshita dubey and Monika Jain

1Pathology, Patna Medical College and Hospital, India
2Lab Oncology unit, AIIMS, India

Background: Mantle cell lymphoma is a specific clinicopathologic subtype comprising 7-10% of NHL. It is characterized by t(11;14) and overexpression of cyclin D1. Peripheral blood is often involved in patients with MCL. It may be secondary to the nodal or extranodal disease or de novo without any primary tissue diagnosis. However, overt leukemic involvement in patients with MCL is much less common.

Materials and Method: The case was retrieved from an ongoing leukemia/lymphoma clinic.

Results: A 60yr old male presented with generalised weakness, fatigue, abdominal pain and palpable lump in left upper abdomen for 5 months. No history of associated comorbidities. CBC showed Hb-10.8gm/dl, TLC-42500, DLC- N-11,L-6,M-1 and 80% atypical lymphoid cells, Platelets-90000. Bone marrow biopsy shows hypercellular marrow of 90-100%, diffuse interstitial infiltration by intermediate sized atypical lymphoid cells showing perinuclear clearing. CECT of abdomen showed multiple retroperitoneal enlarged lymph nodes and moderate hepatosplenomegaly. Features were suggestive of NHL and biopsy was advised. Excision biopsy of submandibular lymph node and flow cytometry was suggested. The patient was diagnosed as CLPD under evaluation. On flow cytometry cells were positive for CD19, CD20, FMC7, CD5 and CD45 and negative for CD23, CD5 and CD10. MCL with MIPI score of high risk(6.9) was considered and managed with rituximab and bendamustine. Patient succumbed to death after 6 months of presenting symptoms.

Conclusion: Leukemic involvement in MCL varies from 53-93%. Previous studies have shown that survival appeared to be influenced by the degree of bone marrow involvement in MCL at the time of diagnosis. Median survival was 14 months in patients with >50% biopsy involvement whereas 49 months in patients with <50% lymphoid involvement. Our patient presented with >50% bone marrow cellularity involved by atypical lymphoid cells. The patient succumbed to disease within 6 months of presenting symptoms. Morphologic subtypes of the peripheral neoplastic lymphocytes at the time of diagnosis can be coupled with immunophenotyping to obviate the need for tissue biopsy to establish the diagnosis of mantle cell lymphoma.

Keywords: Leukemia, Mantle cell lymphoma, Median survival