Coexistent Multiple Myeloma and SLL: A Rare Entity

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Dear Sir,

A 64 years old male, presented to the hospital with complaints of lower back pain for 1 month. On examination, patient had a 2 × 2 cm submandibular lymph node and a 1 × 1 cm left axillary lymph node. CBC with peripheral smear examination showed rouleaux formation and increase in small lymphocytes (DLC: N: 41, L:55, M:04). MRI of the dorso-lumbar spine revealed multiple altered signal intensity lesions in the dorsolumbar spine, pelvis and ribs, associated with soft tissue component favoring a possibility of neoplastic etiology? Metastasis. Bone marrow aspiration (BMA) and bone marrow biopsy (BMB) were undertaken. BMA smears showed increase in plasma cells showing abnormal morphology along with an increase in small lymphoid cells (Myelogram: My:05, N:11, L:40, M:03, E:04, Erythroid:20, Plasma Cells: 17). BMB showed 6–7 lymphoid aggregates which were predominantly intertrabecular in location and comprised of small lymphoid cells with monomorphic appearance. Adjacent to these aggregates, clusters of plasma cells were found (Fig. 1). On IHC: These lymphoid cells were positive for CD20 highlighting the “B” nature of these

cells. These cells were also positive for CD5, CD23, Bcl-2 and negative for CYCLIN D1, CD10, CD38, CD138, CD3 and showed ki67 index of <5 % (Fig. 2). CD38 AND CD138 highlighted multiple clusters and aggregates of plasma cells lying throughout the section examined. These plasma cells expressed lambda and were negative for kappa and CD20 (Fig. 3). Serum protein electrophoresis done subsequently showed M spike of 3.5 g/dl. On the basis of these findings, a final diagnosis of multiple myeloma coexistent with bone marrow infiltration by SLL was rendered.

The differential diagnosis of a lymphoplasmacytic/lymphoplasmacytoid infiltration in the bone marrow include (1) Lymphoplasmacytic lymphoma, (2) Marginal zone lymphoma with plasmacytic differentiation, and (3) CLL with plasmacytic differentiation [1]. Lymphoplasmacytic lymphoma presents with admixture of plasma cells, plasmacytoid lymphocytes and lymphocytes in the bone marrow, however completely separate lymphoid and plasma cell collection may occur occasionally. The lymphocytes of LPL are CD5 negative [2]. 21–74 % of splenic marginal zone lymphoma show plasmacytic differentiation. These cells can be CD5+ in up to 20 % cases but are strong CD20 and surface IgG+ thereby differentiating it from CLL [1]. CLL itself can show lymphoplasmacytoid differentiation, but such cases will lack true plasma cells. The small lymphocytes would be CD5 and CD23+ and would show dim CD20 and surface IgG expression.

Presence of end organ damage, lytic bone lesions, non IgM paraprotein support a diagnosis of MM because such features are rare in these lymphoid malignancies. The correct distinction of the disease as concomitant MM and CLL from other causes of marrow lymphoplasmacytoid infiltration is very important for the initiation of correct therapy of the patient.

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Fig. 1 Picture showing multiple lymphoid aggregates surrounded by plasma cells **a** low power and **b** high power view

Fig. 2 On immunohistochemistry, the lymphoid cells showed positivity for **a** CD20, **b** CD5, **c** CD23 and **d** showed low Ki 67 index (<5 %)

Fig. 3 Plasma cells were positive for **a** CD38, **b** CD138, **c** lambda light chain while **d** kappa light chain was negative (a few reactive plasma cells show positivity)

References

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