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Title: CLINICAL PROFILE AND TREATMENT OUTCOME OF LYMPHOPLASMACYTIC LEUKEMIA (LPL) IN CURRENT ERA- A RETROSPECTIVE ANALYSIS FROM A TERTIARY CARE CENTER

Abstract Type: Publication Only

Topic: Indolent and mantle-cell non-Hodgkin lymphoma - Clinical

Background:

Lymphoplasmacytic lymphoma/Waldenström macroglobulinemia (LPL/WM) is a rare, indolent B-cell non-Hodgkin lymphoma with a incidence of 8 cases/million per year. Incidence is reportedly ten times lower in Asian population. Treatment and prognosis have improved with the availability of rituximab and BTK inhibitors. There is paucity of published data on the management of LPL/WM from developing countries. Here we report our experience of WM/LPL from a single center from north India.

Aims:

To analyze clinical, laboratory profile, treatment response, progression free survival and overall survival of patients with lymphoplasmcytic lymphoma/waldenstrom macroglobulinemia.

Methods:

Retrospective analysis of patients diagnosed as LPL/WM from Jan 2016- Jun 2023 was performed. Demographic, clinical and laboratory details of the patients were acquired for the hospital and laboratory database. Progression-free survival is calculated and given in months with range.

Results:

A total of 35 patients (24 male and 11female) were diagnosed as LPL/WM during the study period. Median age was 68 years (64-87 years). Median Hb was 7.7gm/dl (3.5- 12 gm/dl). Out of 35, complete clinical details were available for 28 patients while seven patients who were diagnosed by bone marrow immunophenotyping and then lost to follow up; paraprotein was Ig M in 25/28 (89%) while Ig G in 3/28 (11%) patients. Anemia was presenting symptom in 28/35 (80%) and renal failure in 5/35 (14.2%). None of the patient had clinical hyper viscosity syndrome on presentation. Median M band size seen was 1.8gm/dl (0.58 - 5.8gm/dl). immunophenotyping reports were available for 24 patients. There was a clear difference in the immunophenotype of LPL plasma cells (CD19+, CD20+, CD45+) versus myeloma plasma cells (CD19-, CD20-, CD56+). There was a continuum of expression of CD138 on the clonal B cells and plasma cells which was not seen in control samples. MYD88 mutation by PCR report was available for 10 patients out of which 8 were positive and 2 were negative.

Out of these 35 patients, 19 patients took treatment at our center were included in survival analysis. Two patients died soon after diagnosis due to renal failure and sepsis. Six patients were treated with Bortezomib-Dexamethasone-Rituximab therapy, 6 received bendamustine-riruximab protocol, 4 were given cyclophosphamide-bortezomib-dexamethasone and 3 received Ibrutinib. Median follow-up is 18 months (3-84 months). Eleven (57%) patients had complete remission while remaining achieved a PR. Six (6/19) patients have relapsed after a median period of 3 years, out of these four patients have died while two are doing well on second-line therapy. One died due to second malignancy (carcinoma lung). Median progression free survival and overall survival have not reached.

Summary/Conclusion:

Symptomatic anemia, peripheral neuropathy and renal failure are common presentation of LPL/WM. More cases are diagnosed with the widespread availability of immunophenotyping and MYD88 mutation testing. There is a need to clearly differentiate LPL/WM from myeloma as treatment differs and prognosis is better.

Table 1 - Clinical, laboratory and treatment data of patients

Total no of patients
Median age
Male: female
No of patients with anemia
No of patients with Pancytopenia
No of patients with Renal failure
M protein type
Treatment details (N=19)
Median Follow up

Keywords: B cell lymphoma, Lymphoplasmacytic lymphoma, Indolent non-Hodgkin's lymphoma, ibrutinib