Abstract: PB2949

Title: OUTCOME OF MANTLE CELL LYMPHOMA WITH UNIFORM PROTOCOL : A NORTH INDIAN TERTIARY CARE CENTER EXPERIENCE

Abstract Type: Publication Only

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

Background:

Mantle cell lymphoma (MCL) is an aggressive variant of non-Hodgkin lymphoma. Indian data is scarce owing to its rarity in south-east Asia.

Aims:

Our study aims to assess profile of MCL patients in this part of world and if rituximab maintenance (RM) improves overall survival (OS). Primary outcome was OS. Secondary outcomes were event free survival (EFS) and factors affecting OS, EFS.

Methods:

We retrospectively analyzed clinicopathological data of 90 transplant-ineligible MCL patients treated between January'2013-December'2023 at Institute Rotary Cancer Hospital - All India Institute of Medical Sciences, New Delhi, India. Response was assessed by modified Cheson's lymphoma response evaluation criteria. STATA 13.0 was used to assess survival by Kaplan-Meier analysis and log rank test. Factors affecting survival were assessed by multivariate analysis (Cox proportional hazards model) and expressed as adjusted hazard ratio (aHR). *p* value < 0.05 defined statistical significance.

Results:

Median age was sixty years; male-female ratio 3:1. Thirty-five (39.0%) had one or more co-morbidities, 79(88.0%) generalized lymphadenopathy, 49(54.0%) B symptoms, 17(19.0%) bulky disease (lymph node size ≥7.5cm), 47(52.0%) splenomegaly, 84(93.0%) advanced stage (III/IV), 49(54.0%) high risk MCL international prognostic index (MIPI). Extra-nodal involvement was seen in 72(80.0%) cases; most frequently bone marrow 51(57.0%)- pattern of involvement (few had overlap) was interstitial (62.0%), para-trabecular (62.0%), diffuse (29.0%). Leukocytosis (TLC >10,000 cells/mm3) was seen in 33(37.0%) patients. Thirty-five of 88(40.0%) had atypical cells demonstrated in peripheral blood and flowcytometry. Histological variants of MCL were classical 67(75.0%), blastoid 19(21.0%), pleomorphic 4(4.0%). All cases were CD20 positive and CD3 negative. Twenty percent were CD5 negative. Three percent were CyclinD1 negative; of which one showed SOX11 positivity. Rituximab-based induction chemotherapy (median cycle number 6) was used in all as per institutional protocol. RM was used in 28(31.0%) patients due to financial constraints. Complete response (CR) and overall response rate (ORR) was 69.0% and 86.0% respectively. Clinical and tumor characteristics, response rates after initial induction were similar in both maintenance and non-maintenance groups. Overall, 52(58.0%) patients were alive with median follow-up of 63.0 months. Median OS was 37.5 months in non-maintenance group and did not reach in maintenance group. Estimated 1.0-, 2.0, 3.0-year OS were 100.0%, 91.0%, 81.0% vs 75.0%, 63.0%, 55.0% respectively in maintenance vs non-maintenance group. RM was significantly associated with better OS [aHR (95% confidence interval; CI): 0.31 (0.13-0.75), *p*=0.01]. Advanced stage, Eastern Co-operative Oncology Group performance status (ECOG PS) ≥2 at presentation were also significant factors for poor OS. Median EFS was significantly lower in non-maintenance group [14.0 vs 42.5 months; aHR (95% CI): 0.34 (0.18-0.64), *p*=0.001]. Advanced stage, anemia (Hb <10 gm/dL), high risk MIPI at presentation were also significant factors for poor EFS.

Conclusion:

Most of our MCL patients were in advanced stage and high risk MIPI category with frequent extra-nodal

involvement. RM significantly improved OS and EFS. Our study was first of its kind demonstrating OS benefit of rituximab maintenance in MCL.

Keywords: Survival, Mantle cell lymphoma, Non-Hodgkin’s lymphoma, Rituximab