



OUTCOME OF DIFFUSE LARGE B-CELL LYMPHOMA (DLBCL) AFTER FIRST LINE CHEMOTHERAPY : RETROSPECTIVE STUDY IN A CANCER INSTITUTE

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Background

Diffuse large B-cell lymphoma (DLBCL) the single largest category of lymphoma, is a heterogeneous group of lymphomas with several morphologic features. Objective of this study is to know the outcome and survival of subtypes of Diffuse Large B-Cell Lymphoma (DLBCL) after first-line chemotherapy.

Materials and Methods

This is a retrospective study which includes all patients age >18 years, diagnosed with DLBCL (Final diagnosis of DLBCL done on the basis of complete panel immunohistochemistry in combination with histopathology reports of paraffin embedded blocks of suspected lymphoma cases) and registered at the department of Hematology of National Institute of Cancer Research and Hospital, Bangladesh, between July 2016 to June 2019. We excluded secondary lymphoma, HIV associated lymphoma and patients with incomplete record. The Patient were classified as germinal center B cell like or activated B cell type using the Hans algorithm. Complete response, partial response, refractory, relapse were categorized according to international working group criteria for malignant lymphoma. Analysis carried out using SPSS version 23. One-way analysis of variance (ANOVA), Chi-square test and Fisher's Exact test used to extract p-value.

Results

Total 126 cases were included in this retrospective data analysis. According to immune-histochemistry we divided the cases into three molecular sub categories to see the outcome and survival and their differences. We found non-GCB (Germinal Center B cell) types DLBCL were significant (p-value:0.004) and the prevalent one (46%).

Mean age was 47 years with a Standard deviation of 15 years. Males (70.6%) were more in occurrence of DLBCL. Male-Female ratio is 2:1. No significant difference observed in chemotherapy response relating to age and sex among different types of DLBCL. We also subdivided the cases according to Ann-Arbor staging systems. We found, 68 (54%) cases were of stage I and another 54 (42.8%) cases were Stage II and stage III. Mean Serum LDH was 227 U/L with a SD of 68 U/L and there was no significant difference observed among the molecular subtypes. Patients were categorized according to International Prognostic Index (IPI). We found more than half (55; 43.7%) of subjects had low intermediate risk and there was no significant difference observed in risk categorization. Mean IPI score was 2 (SD±1). Mean ECOG performance status of study subjects were 2 (SD±1). Mean proliferating index (Ki67) was 71.3% (SD±16.1%) and no significant difference observed in Ki67 among different types of DLBCL. Several types of first line chemotherapy used in management and 39% complete remission with 10% death observed in overall outcome. No significant difference observed in outcome among different types of DLBCL after treatment. No significant difference observed in survival among different types of DLBCL and overall mean survival was 54 months.

Conclusion: This limited database study of NICR&H will help to ascertain the outcome and overall survival of DLBCL with first-line chemotherapy in Bangladesh.

Key words: DLBCL, IPI, NICR&H, non-GCB, Immunohistochemistry.