

## Clinical Oncology 2018: Autologous stem cell transplant in complete remission has better survival in patients with lymphoma: A single center experience - Rayaz Ahmed - Rajiv Gandhi Cancer Institute and Research Centre, India

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**Introduction:** We aim to report the clinical outcomes, and the factors predicting the outcomes post autologous stem cell transplantation (ASCT) in lymphoma patients treated at our center.

**Methods:** Retrospectively, records of all consecutive lymphoma patients who underwent ASCT from the year 2012 to 31st October 2017 were reviewed and followed up till 31st December 2017 for outcomes. Details of second transplants / allogeneic stem cell transplants (AlloSCT) were excluded from analysis. Conditioning was done with carmustine (300 mg/m<sup>2</sup>), etoposide (200 mg/m<sup>2</sup>), cytarabine (200 mg/m<sup>2</sup>) and melphalan (12 mg/m<sup>2</sup>). Overall survival (OS) and event free survival (EFS) were calculated using Kaplan Meier method and log rank and Cox regression test was used for uni/multivariate comparisons with SPSS.

**Results:** Eighty-five lymphoma patients (68 male, 17 female), median aged 41 (6-67) years underwent ASCT. Histologically, 41% (n=35) patients had Hodgkin's lymphoma (HL), while 59% (n=50) had non-Hodgkin's lymphoma (NHL) (40=B cell NHL, 10 T cell NHL). Among B cell NHL's, 62.5% had diffuse large B-cell lymphoma (DLBCL) (n=25), 15% had mantle-cell lymphoma (MCL) (n=6), 5% each had T Cell rich B Cell NHL (n=2) and Burkitt's (n=2), and 2.5% each had FL, transformed DLBCL (n=1), primary CNS lymphoma (n=1), MZL (n=1) and high grade B cell NHL (n=1) respectively. Among T Cell NHL's, 50% had PTCL

(NOS); n=5, 30% had ALCL; n=3 and 10 % each had cutaneous type and subcutaneous panniculitis type lymphomas. Three, 19, 28 and 23 patients had an Ann Arbor stage I, II, III, IV respectively while in 12 patients Ann Arbor stage was undetermined. Forty percent (n=34) patients presented with B symptoms. Eighteen patients (21%) were transplanted in first or complete remission (CR) while 41 patients (48.2%) were transplanted in later CR. Sixty-five (76.5%) patients had recurrent disease. More than half of our patients (46/85; 54%) were classified into intermediate/poor prognostic risk groups. At a median follow up of 33 months of surviving patients, 55±8.3% of patients have an OS, while 44.7±8% patients have an event-free survival (EFS). Fifty-nine patients achieved CR post ASCT. Relapse rate post ASCT was 30.6% (n=26). On univariate analysis, type of lymphoma (HL/NHL), B symptoms at presentation (present/absent), sex, CR status at ASCT (yes/ no) and risk group (low or intermediate/high) predicted OS while sex, CR status at ASCT and type of lymphoma predicted EFS. On multivariate analysis, HL or transplantation in CR and absence of B symptoms predicted OS while only HL predicted EFS.

**Conclusion:** Majority of patients achieved CR post ASCT. Longer OS was seen in patients who were transplanted in CR. HL patients have better OS and EFS post ASCT.