Retrospective Analysis of Real-World Outcomes in Elderly Patients with Diffuse Large B-Cell Lymphoma

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Background

- Treatment of elderly DLBCL is a complex interplay between disease cure and treatment related toxicity.
- Anthracyclines constitute the cornerstone of the treatment [1] , but is associated with several side-effects including cardio -toxicity.
- At our institute, we replace doxorubicin with etoposide in cases where compromised cardiac function, performance status and multiple comorbidities are major concerns.

Objective

- To retrospectively analyze the treatment outcomes of patients with DLBCL aged ≥ 60 years
- To compare the 2- year PFS rates between R-CHOP and R-CEOP regimens

Materials & Methods

- Retrospective study
- Patients aged ≥ 60 years, newly diagnosed with DLBCL between January 2015 to December 2018 at our center.
- Chemotherapy regimens received included -
  - R-CHOP
  - R-CE (Etoposide) OP for anthracycline-ineligible or elderly frail patients. (Etoposide was used at a dose of 65mg/m^2 orally on day 1-3)
- Response assessment by PET-CT after 4-6 cycles.
- The decision to use anthracyclines was at the discretion of the physician depending upon the following factors – 1) cardiac function 2) performance status 3) multiple comorbidities.

Results

- Total 218 patients, Median age – 65 years, 60-65 years : 124 patients (56.9%) & above 65 years 94 patients (43.1%)
- R-CHOP in 71 patients (32.6%), R-CEOP in 137 patients (62.4%), Other regimens - 10 patients (5.0%)
- R-CEOP was received by 83% of patients aged >65 years and 47.6% of patients in 60-65 years age group.
- Reasons for replacing doxorubicin :
  - cardiac contraindications (9.6%)
  - presence of hypertension or ≥ 2 significant comorbidities (29.9%)
  - advanced age (age ≥ 75 years, 8.0%)
  - baseline Eastern Cooperative Oncology Group (ECOG) PS of > 2 (3.6%)
  - physician's discretion in 48.9% of cases.
- CRR and ORR - higher in the R-CHOP group compared to the R-CEOP group (statistically significant difference found only among 60-65 years of age group)
- Febrile neutropenia and grade III/IV hematological toxicities - significantly higher in the R-CHOP group than in the R-CEOP group in 60-65 years age group.
- Overall median follow-up -22.71 months (Range 1-81 months).
- 2-year PFS rate – 79.1% in the R-CHOP group vs 49.6% in the R-CEOP group (p-value <0.001).
- This statistically higher 2-year PFS rate in the R-CHOP group was found among patients with early as well as advanced stage disease, and also in the age group of 60-65 years.
- The 2-year OS rate in the overall cohort was significantly higher in the R-CHOP group (86.2% vs 70.6%, p-value 0.016) and the age

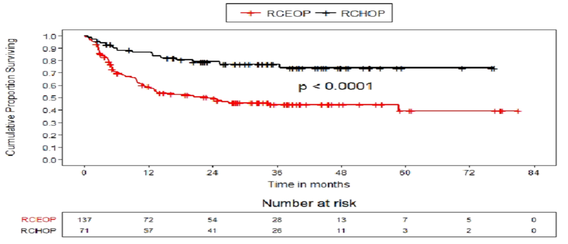


Figure 1 : Kaplan-Meier Curve of PFS in elderly patients (age ≥ 60 years) with DLBCL

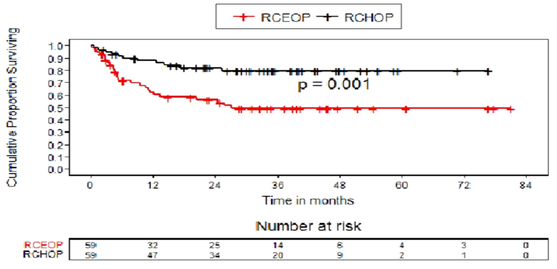


Figure 2 : Kaplan-Meier Curve of PFS in patients with age 60-65

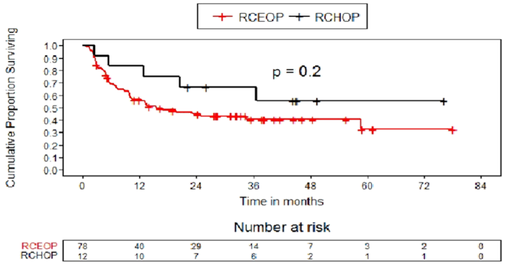


Figure 3 : Kaplan-Meier Curve of PFS in patients with age > 65 years

- group of 60-65 years showed significantly better outcomes with the anthracycline-based regimen.
- Match pairing analysis – Adjusted for confounders like NCCN-IPI and bulky disease. Showed higher 2-year PFS rate in the R-CHOP group than in the R-CEOP group (70.0% vs 34.6%, p-value <0.001).

Conclusion

- Age and comorbidities are not absolute contraindications to the use of anthracyclines [2]. Fit patients without cardiac contraindications should receive R-CHOP regimen whenever possible. Geriatric assessment tools should be used for the frail or unfit patients to guide appropriate therapy.

References

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[2] Rossi, Sabrina & Cerchiaro, Giovanni. (2015). Real Benefit of Anthracycline-Based Chemotherapy in Elderly and Impaired Patients: a Retrospective Analysis. Journal of Integrative Oncology 2015. 4:3.