EPIDEMIOLOGICAL PROFILE AND OUTCOMES OF PATIENTS WITH DIFFUSE LARGE B-CELL LYMPHOMA IN A BRAZILIAN PUBLIC TERTIARY CARE CENTER

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Context

Although substantial advances have been made in the diagnosis and treatment of diffuse Large B-cell lymphoma (DLBCL), outcomes remain disproportionately poor in lower-resource environments. In Brazil, structural and logistical limitations within the public health system contribute to these disparities. Real-world data describing patient characteristics and outcomes remain limited.

Objective

Evaluate the epidemiological and clinical characteristics, treatment patterns, and outcomes of DLBCL patients treated at a public tertiary care center in Brazil.

Methods

Design: Retrospective cohort study of adult patients diagnosed between 2020 and 2024.

Setting: Hospital das Clínicas – Universidade Federal de Minas Gerais, a public terciary care center in Brazil.

Patients: Fifty-seven patients (≥18 years) with de novo DLBCL were included. Data were extracted from medical records.

Interventions: First-line regimens were selected at physician discretion. R-CHOP was most used (57.9%), while R-mini-CHOP was reserved for elderly/frail patients (24.6%). Together, these accounted for 82.5% of treatments. Other regimens included R-CEOP (5.3%), MATRIX (5.3%), CHOP (1.8%), R-CVP (1.8%), and R-DA-EPOCH (1.8%).

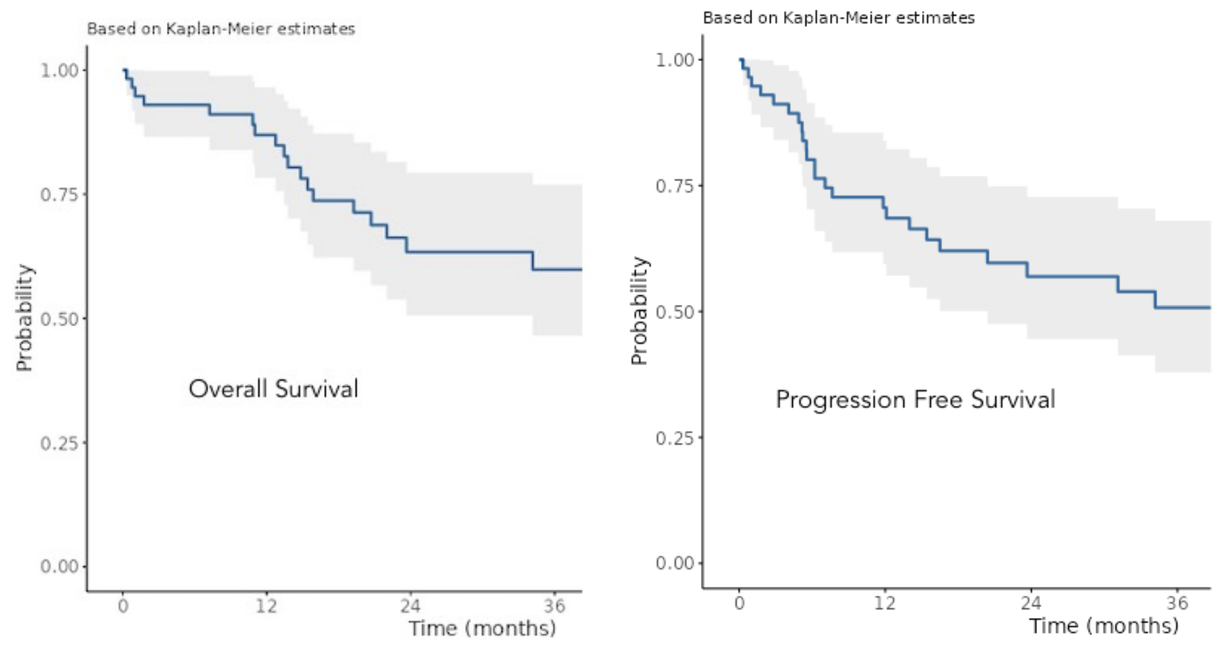
Outcome Measures: Overall survival (OS) and progression-free survival (PFS), estimated using the Kaplan–Meier method.

Results

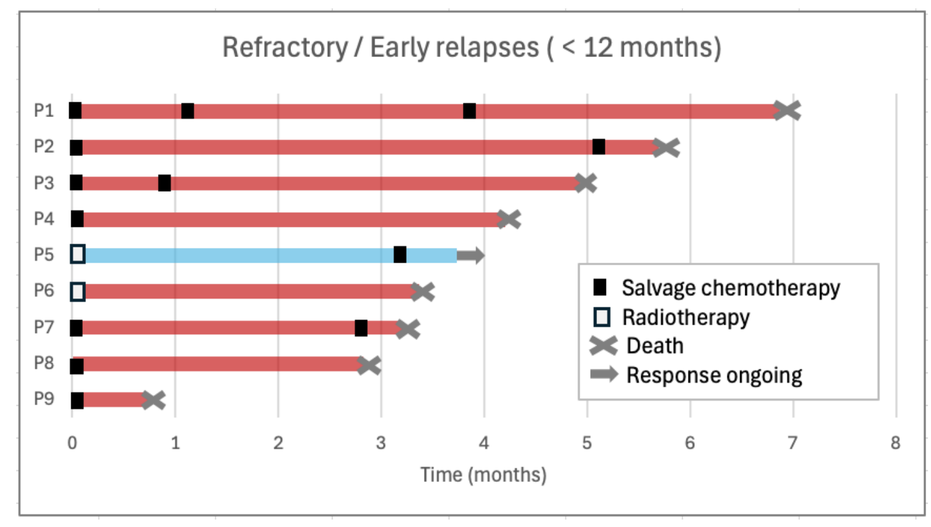
Median age was 57 (IQR 39–74) years, and 50.9% were male. According to the Lugano classification, 78.9% presented with advanced-stage disease (stage III–IV). High or high-intermediate R-IPI (≥3) was present in 61.4%, ECOG status ≥2 in 56.1%, and elevated LDH in 57.9%. Histological subtypes included germinal center B-cell DLBCL (26.3%), non-GCB DLBCL (43.9%), T-cell/histiocyte-rich LBCL (5.3%), and unclassified (24.6%).

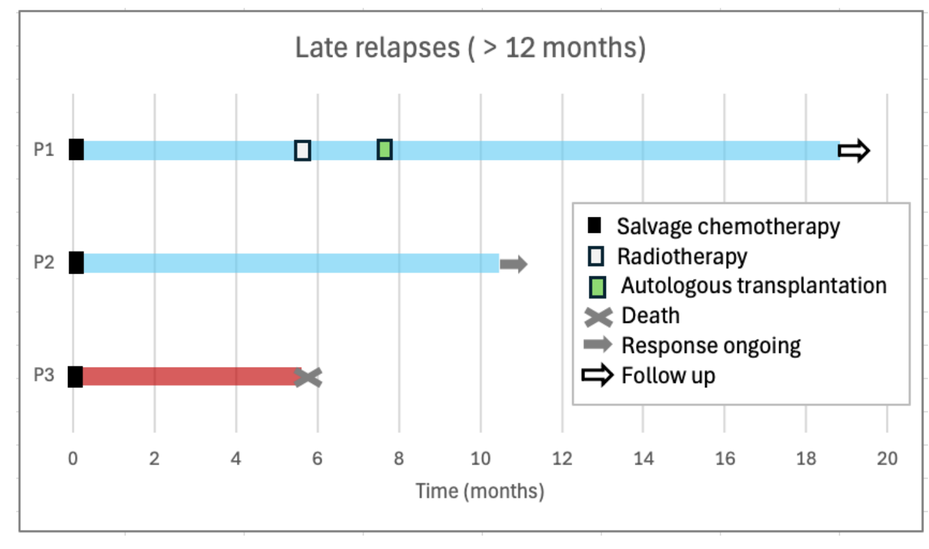
Baseline characteristics of study cohort	N=57
Age at diagnosis, median (IQR)	57 (39-74)
Male sex, n (%)	29 (50.9%)
Stage, n (%)	
Early stage I-II	9 (15.8%)
Advanced stage III-IV	45 (78.9%)
Missing data	3 (5.3%)
R-IPI risk group, n (%)	
Very good (0 factors)	2 (3.5%)
Good (1-2 factors)	19 (33.3%)
Poor (3-5 factors)	35 (61.4%)
Missing data	1 (1.7%)
ECOG ≥ 2, n (%)	32 (56.1%)
Elevated LDH, n (%)	33 (57.9%)
Charlson comorbidity index, median (IQR)	3.0 (2.0 – 6.0)
Histological Cell of origin, n (%)	
Non Germinal Center	25 (43.9%)
Germinal center	15 (26.3%)
Unclassifiable / others	17 (29.8%)
Subtype, n (%)	
DLBCL NOS	44 (77.1%)
Primary mediastinal	6 (10.5%)
T-cell/histiocyte rich	3 (5.3%)
Primary CNS	3 (5.3%)
Primary cutaneous DLBCL	1 (1.8%)

Among 53 evaluable patients: the overall response rate was 69.8% (66.0% complete; 3.8% partial). Refractory disease occurred in 18.9%; 11.3% were not assessable due to early death or palliative care. With a median follow-up of 33.9 months, OS at 12 and 36 months was 87% (95% CI: 78–97%) and 60% (95% CI: 47–77%). PFS was 71% (95% CI: 59–84%) and 51% (95% CI: 38–68%) at 12 and 36 months, respectively.



In this cohort, 15 patients (26.3%) relapsed or were refractory to treatment (R/R). Among them, 3 patients (20%) were deemed ineligible for further therapy and were referred to palliative care. Of the remaining 12 patients, 10 (83.3%) received second-line salvage chemotherapy, and only 1 of them (10%) subsequently underwent autologous bone marrow transplantation. Among the R/R group, 3 patients were late relapses (>12 months), while 9 were refractory or experienced early relapse (<12 months). Patients with refractory/early relapse had a median survival of 4.2 months, and by the end of the study follow-up, 8 out of 9 patients (88.9%) had died. Among the deaths in this subgroup, 87.5% were attributed to complications of progressive disease.





Conclusion

Most patients presented with advanced-stage and high-risk disease, at higher frequencies than typically reported. Despite this, OS and PFS were comparable to outcomes described in the literature for similar risk groups. These findings highlight the impact of delayed diagnosis and the need for improved access to timely care in Brazil's public health system. The prognosis for R/R patients was poor, seemingly worse than outcomes reported in the literature, although our sample size was very limited. These observations demonstrate the urgent need for novel therapies within the Brazilian public health system for this patient population, particularly CAR-T cell therapy and bispecific antibodies, which are currently inaccessible.

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