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ELEVENTH ANNUAL MEETING

The Outcome of Tisagenlecleucel (Tisa-Cel) CD-19 CAR-T Cell Therapy in NHL Relapsed/Refractory Beyond Second Line of Therapy, Single-Center Data

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INTRODUCTION

Relapsed or refractory (R/R) none Hodgkin lymphoma (NHL) is associated with a generally poor prognosis. The objective response rate (ORR) has been reported as 26% and complete response rate (CR) was 7% to the next line of therapy, and the median overall survival was 6.3 months in Schoolar-1 study.

Chimeric antigen receptor (CAR) T cells using genetically modified autologous T cells targeting CD19 represents a promising salvage immunotherapy for relapsed/refractory R/R NHL.

AIM

To describe the outcome of CAR-T therapy in relapsed or refractory NHL outside of the clinical trial in a real-world clinical practice.

METHOD

A single center retrospective analysis of CAR-T therapy Tisa-Cel outcome in relapsed or refractory NHL to ≥2 lines of therapy .

A total of 25 patients were included in this analysis between November 2020 and December 2022.

All patients received lymphodepletion (LD) therapy with fludarabine and cyclophosphamide (Flu/Cy) before CAR-T cell infusion.

MAIN OUTCOMES MEASURES:

1. ORR, CR and partial responses (PR).
2. The 2 years overall survival (OS)
3. The respective toxicities include cytokine release syndrome (CRS) and neurologic events namely ICANS.

RESULTS

The best ORR was 52%; 32% of the patients had CR, and 20% had PR.

The disease progression (DP) was 48%.

The 2 years OS was 72% with 69.2% for germinal center B-cell (GCB) subtype.

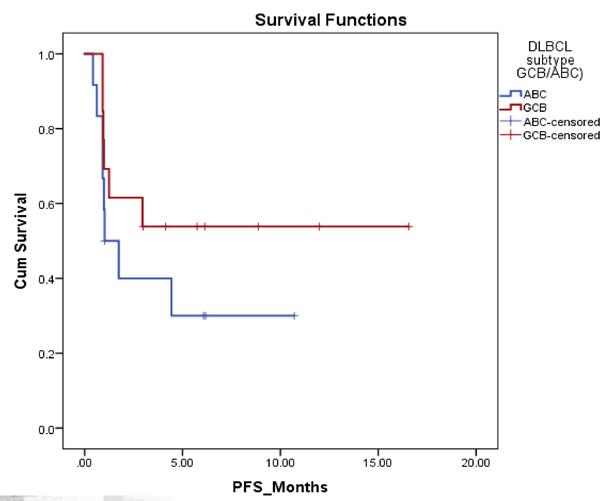
Overall progressive free survival (PFS) was 44%

The best PFS was in GCB subtype, 53.8%

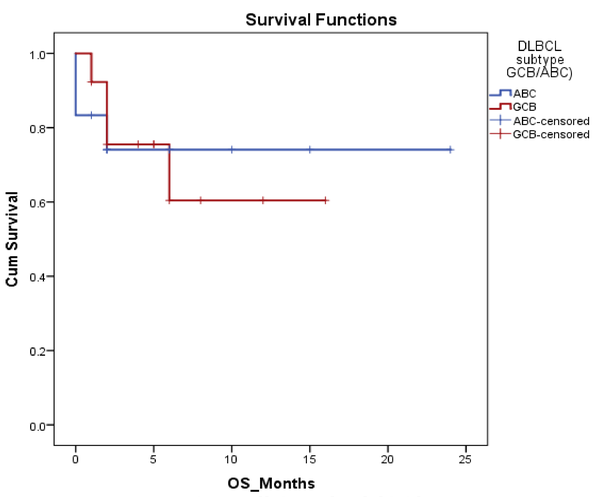
The main toxicities post CAR-T cell infusion:

1. CRS was 88% with 12% grade ≥ 3.
2. ICANS was 24% with 20% grade ≥ 3.

Tocilizumab used in 60%. Two patients died from disease progression within 30 days of CAR-T infusion.



Progressive free survival (PFS)



Overall Survival (OS)

Patinetes	N=25
Age-Median	48 (20-73)
Gender	64% (male)
GCB % (n)	52% (12)
ABC % (n)	48% (12)
Stage-III % (n)	44% (11)
Stage-IV % (n)	52% (13)
ASCT % (n)	24% (6)
CNS % (n	12% (3)
Bridging therapy % (n)	20% (5)

CONCLUSIONS

In this single-center retrospective analysis of CAR T-cell therapy in relapsed or refractory diffuse large B-cell lymphoma in adults, GCB subtype has superior in PFS outcome compared with ABC subtype, the outcome of durable responses and toxicities profile were like the real-world data and JULIET NCT02445248 trial outcome using tisagenlecleucel therapy.

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