Abstract Topic: 19. Aggressive Non-Hodgkin lymphoma - Clinical

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REAL-WORLD ASSESSMENT OF ANTI-CD19 CAR-T CELLS IN PATIENTS AGED 75 YEARS AND OLDER WITH RELAPSED OR REFRACTORY LARGE B CELL LYMPHOMA: A LYSA STUDY FROM THE DESCAR-T REGISTRY

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Background:

CD19 CAR-T cells have changed the treatment landscape for relapsed/refractory large B cell lymphoma (R/R LBCL) offering a potential curative-intent strategy. However, the elderly population is facing specific challenges with immunosenescence potentially limiting efficacy and higher comorbidity burden increasing toxicity. Patients aged 75 years or older (pts≥75 yo) were underrepresented in clinical trials and to date few real-world series have focused on this age group.

Aims:

To explore outcomes of R/R LBCL pts≥75 yo treated in 3rd line or higher with anti-CD19 CAR-T and to compare with those of pts younger than 75-years (pts<75yo).

Methods:

We retrospectively analyzed pts from the French DESCAR-T registry infused with commercial products, and focused on pts≥75 yo. The primary endpoint was OS. The secondary endpoints were PFS, best ORR and CRR (Lugano 2014, local assessment), grade≥3 CRS and ICANS rates, and non-relapse mortality (NRM) defined as pts who died of causes unrelated to lymphoma relapse/progression (death of unknown origin were excluded). All time-to-event analyses used time of CAR T-cell infusion as the origin.

Results:

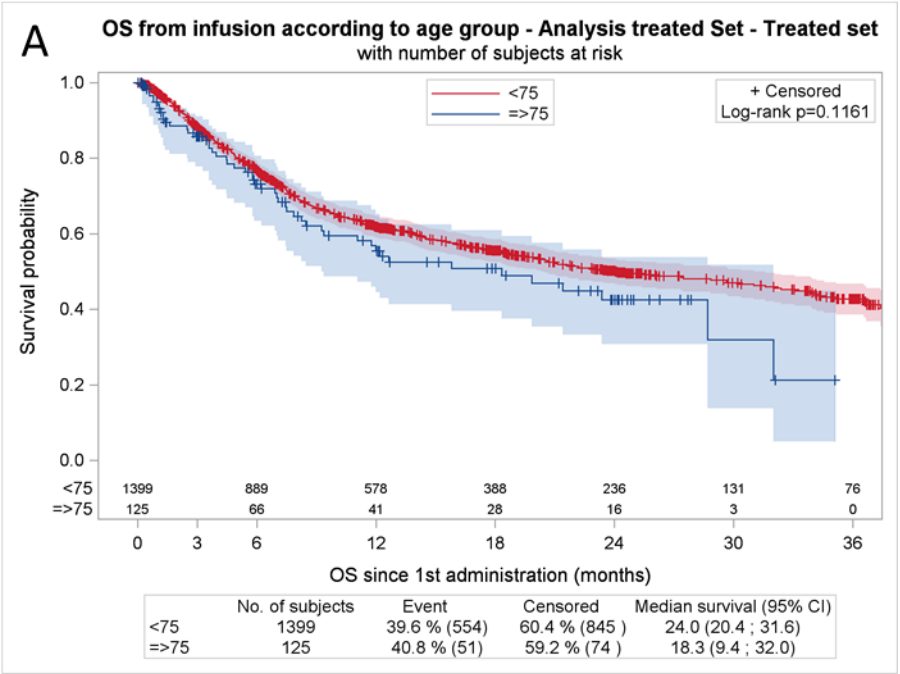
Between April 2018 and September 2023, 1,524 consecutive pts with R/R LBCL after at least 2 lines were infused with CD19 CAR-T cells (axi-cel n=1065 [69.8%] and tisa-cel n=459 [30.1%]) and registered in the DESCAR-T registry. Of those, we identified 125 pts≥75 yo (median age 76 yo, interquartile range [IQR]: 75-78) and 1,399 pts<75yo (median age 62 yo, IQR: 68-75). There was no significant differences between the two age groups in terms of gender, LBCL subset, number of prior lines, performance status, age-adjusted International Prognostic Index, rate of pts receiving a bridging therapy, response to the bridging therapy and LDH at time of infusion. Compared to the pts<75 yo, pts≥75 yo had a higher HCT-CI score, (31.2% high HCT-CI *versus* 16.8%, respectively, p<0.001), fewer prior transplant (4.8% *versus* 21.8%, respectively, p<0.001) and received more frequently tisa-cel (43.2% *versus* 28.9%, respectively, p<0.001).

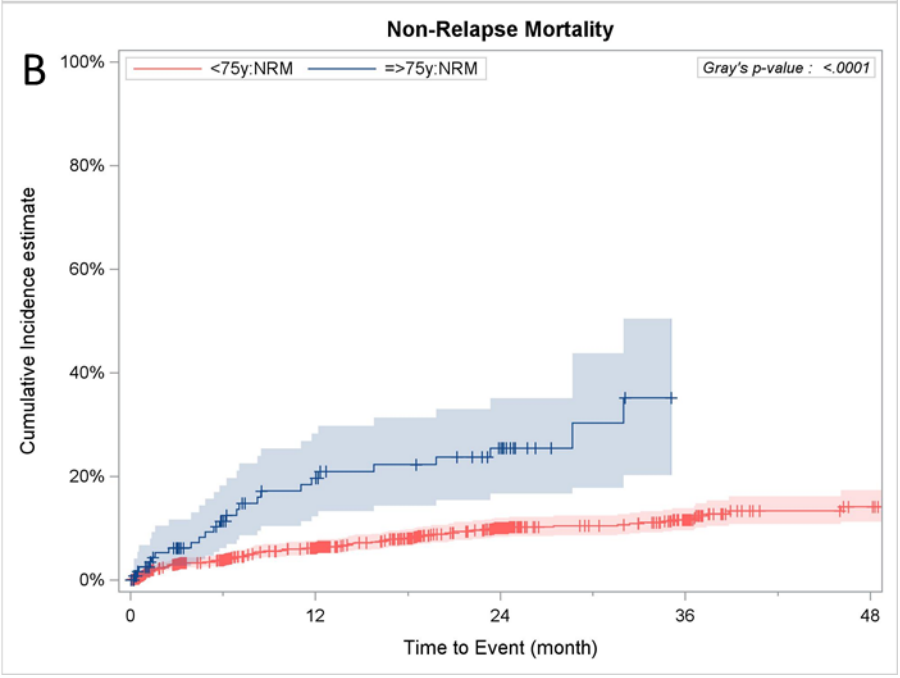
With a median follow-up of 12.7 months (95% CI, 9.6-21.2 months), among 1,457 pts evaluable for response, the best ORR/CRR was 74.8%/62.6% in the ≥75 yo group *versus* 78.0%/60.8%, in the <75 yo group (p=0.425 and 0.699, respectively). The estimated median OS was 18.3 months (95% CI; 9.4 - 32) in the ≥75 yo group (Figure1A) and 24.0 months (95% CI; 20.4-31.6) in the <75 yo group (p=0.12) and the estimated median PFS was 8.2 months (95% CI; 4.1 - 11.3) in the ≥75 yo group and 6.1 months (95% CI; 5.7-7.4) in the <75 yo group (p=0.73). Grade≥ 3 CRS and ICANS rate were not significantly different in pts ≥75 yo *versus* pts <75 yo, 7.3% versus 7.4% (p=0.97) and 9.8% versus 12.4% (p=0.39), respectively. Overall NRM occurred more frequently in the ≥75 yo (Figure1B), with 20.0% of deaths not related to lymphoma progression/relapse compared to 8.7% in the <75yo group (p<0.001). Early NRM (before day 28 post-infusion) occurred in 3 pts≥75 yo (2.4% of all patients and 12.0% of all NRM) compared to 16 pts<75 yo (1.1% of all patients and 13.1% of all NRM). Further analyses regarding causes and prognosis factors of NRM are pending and will be presented during the meeting.

Summary/Conclusion:

This real-world study demonstrates that CD19 CAR-T cells is feasible in a population of pts aged 75 years and older. There was no significant difference compared to a younger population in terms of efficacy and survival. However, NRM is higher in the older population, which will deserve further investigations that may help to improve patient selection.

Figure 1:
OS from infusion according to age group, B. NRM according to age group





Keywords: CAR-T, Elderly, DLBCL, Real world data