(PF1239) RELAPSED OR REFRACTORY (R/R) EBV-RELATED POST-TRANSPLANT LYMPHOPROLIFERATIVE DISORDERS (PTLD): REAL-LIFE MULTICENTER ITALIAN EXPERIENCE WITH TABELECLEUCEL

Topic: 26. Gene therapy, cellular immunotherapy and vaccination - Clinical

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Background

Epstein Barr virus-associated post-transplant lymphoproliferative disease (EBV+PTLD) is a rare complication occurring after either allogeneic stem cell (HSCT) or solid organ transplantation (SOT), with a very poor outcome in relapsed/refractory (R/R) patients. Tabelecleucel is an allogeneic EBV-specific T-cell immunotherapy that targets EBV-positive cells based on human leukocyte antigen (HLA) restriction. The phase 3 ALLELE trial reported an overall response rate (ORR) of 51%, with complete remission (CR) in 28% and 12 months-overall survival (OS) of 84% among responders. Since February 2023, tabelecleucel became available in Italy for adult and paediatric R/R EBV+PTLD patients.

Aims

This retrospective observational analysis describes the preliminary Italian real-life experience with use of tabelecleucel.

Methods

We retrospectively analysed adult R/R PTLD patients candidated and referred to treatment with tebelecleucel within the compassionate use program and commercially available pathway.

Results

From January 2024 to February 2026, 23 patients were enrolled across 10 Italian centres. The median age at first tabelecleucel dose was 61 years (range 24–76); male and female patients were 12 (63.2%) and 11 (47.8%), respectively. Both allo-HSCT and SOT recipients were included: 10 (43.5%) and 13 (56.5%) patients, respectively. Histology was monomorphic in 90% of cases, with diffuse large B-cell lymphoma accounting for 60%. Extranodal involvement was observed in 18 patients (78.3%), including central nervous system localization in 2 cases. According to the PTLD-adapted prognostic index, 50% of patients were classified as high risk, and 16 patients (69.6%) presented with stage IV disease. The origin of PTLD was documented in 21 of 23 cases: 11 of recipient origin and 10 of donor origin. In 10 cases, this attribution was established based on high-resolution HLA typing. The median time from transplant to PTLD onset was 21 months (range 1-227) and 13 cases (56.5%) had early-onset disease (≤24 months). Median time from PTLD diagnosis to tabelecleucel was 3 months (range 0.9–131), while median time from PTLD relapse to tabelecleucel infusion was 33 days (range 7-78). Eighteen patients (78.3%) received rituximab monotherapy as first-line treatment, one patient benefited from immunoreduction alone as a first-line approach. The median number of tabelecleucel cycles was 1 (range 0–8): 3 patients did not receive tabelecleucel (1 early death, 2 unavailability of product). The ORR was 35%. Among SOT recipients, ORR was 54.5%, with CR in 5 out of 11 patients (45.5%); among HSCT recipients, ORR was 11.1% (only one out of 9 patient achieved CR). No significant treatment-related toxicities were reported. After a median follow-up of 6 months, 11 of 23 patients were alive (7 disease free and 4 with disease), while 10 patients (43.5%) died due to progressive disease.

Summary/Conclusion

The preliminary Italian experience supports the efficacy and safety of tabelecleucel in patients with prior SOT, consistent with the results of the ALLELE trial, while outcome was worst in the cohort of HSCT recipients. Early referral and timely product allocation remain critical, as delays and product unavailability limited treatment delivery in a subset of patients. Longer follow-up and larger cohorts are needed to better define outcomes, particularly in HSCT recipients. Additional studies are warranted to define prognostic factors influencing response to tabelecleucel.