POST-TRANSPLANT LYMPHOPROLIFERATIVE DISORDER: Key Considerations and Real-World Analysis in a University Hospital in Northeastern Brazil

T.DE SA [1], F. BARROSO [1]
1. Walter Cantidio University Hospital, Fortaleza, Brazil

Introduction

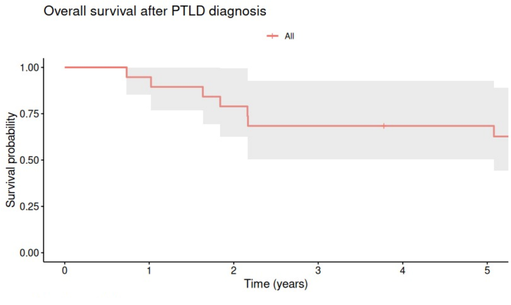
In allogeneic hematopoietic stem cell transplantation (allo-HSCT), the incidence of post-transplant lymphoproliferative disorder (PTLD) reaches approximately 4%, and ranges from 1% to 16% among solid organ transplant (SOT) recipients. EBV-positive PTLD accounts for 60–80% of cases. Due to the rarity of the disease, there are no phase 3 clinical trials addressing its treatment.

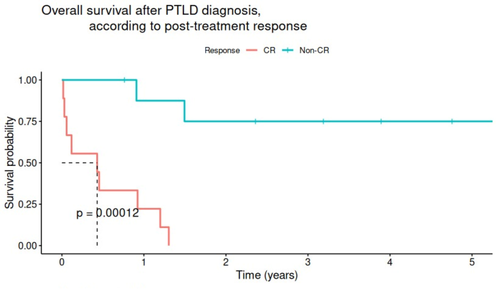
Objectives

To evaluate the clinical profile of patients with PTLD among kidney, liver, and bone marrow transplant recipients between 2014 and 2024 at a specialized center in Northeastern Brazil, with a focus on overall survival (OS) and associated risk factors.

Methods

A retrospective, observational, single-center cohort study based on medical record review, including 19 patients diagnosed with PTLD. During the study period, 269 allo-HSCTs, 847 kidney transplants, and 1,606 liver transplants were performed.





Results

Eighteen patients were SOT recipients and only one had undergone allo-HSCT. The median age at diagnosis was 56 years. Most patients had at least two comorbidities (63.16%), including a history of solid malignancy in 36.84%. The initial immunosuppressive regimen included at least two agents in 94.7% of patients. Seven patients (36.84%) developed PTLD within the first year post-transplant, while 11 patients (56.88%) were diagnosed more than five years post-transplant. Immunohistochemical analysis for EBV-LMP1 was positive in only 2 of 11 tested cases. High EBV viremia at diagnosis was identified in eight patients, none of whom received preemptive rituximab. Initial staging of 15 patients revealed advanced disease in 73.68%. Four patients experienced early death before receiving any treatment. Among the 15 patients who received therapy, 60% achieved complete response. PTLD incidence rates were 3.7 cases per 1,000 allo-HSCTs, 7.0 per 1,000 kidney transplants, and 7.5 per 1,000 liver transplants. One-year OS after diagnosis was 55.4%, dropping to 36.9% at five years. In survival curve comparisons, patients who achieved complete response had a one-year OS of 87.5%, versus 22.2% in those with partial or no response (p = 0.00012).

Conclusion

PTLD is generally an aggressive disease with poor overall survival, likely influenced by factors such as patient age, transplanted organ type, comorbidities, early mortality, and delayed diagnosis.

Corresponding Author:
Thays Araujo Freire de Sá
(thaysafreire13@gmail.com.