Safety and Outcomes of Patients with Classical Hodgkin Lymphoma who Received Immune Checkpoint Inhibitors before Autologous Stem Cell Transplantation: A Real-World Study

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INTRODUCTION

Immune checkpoint inhibitors (CPI) are increasingly incorporated into salvage therapy for relapsed/refractory (R/R) classical Hodgkin lymphoma (cHL).
However, concerns remain regarding transplant-related toxicity, engraftment complications, and outcomes following CPI exposure before autologous stem cell transplantation (ASCT).

AIM

To evaluate the real-world safety and outcomes in patients with cHL who received Checkpoint inhibitor containing regimens before undergoing Autologous Stem Cell Transplantation.

METHODS

We retrospectively analyzed 25 patients with R/R cHL who underwent ASCT after receiving CPI-containing salvage therapy. Baseline characteristics, CPI exposure parameters, transplant-related complications, engraftment kinetics, and survival outcomes were evaluated.

CONCLUSIONS

ASCT following CPI-containing salvage therapy appears feasible and safe in R/R cHL, with encouraging survival outcomes in a real-world cohort. The relatively frequent peri-engraftment febrile episodes may suggest a signal toward increased inflammatory complications in patients previously exposed to CPIs, warranting further investigation.

RESULTS

A. PATIENT CHARACTERISTICS (n=25)

Disease Characteristics	
Primary refractory disease	16/25 (64.0%)
Pre-ASCT CR (Deauville 1–3)	19/25 (76.0%)
Pre-ASCT PR (Deauville 4)	2/25 (8.0%)
Prior lines of therapy, median (IQR)	3 (3–4)

ICI Characteristics	
Nivolumab-based	17/25 (68.0%)
Pembrolizumab-based	8/25 (32.0%)
Last ICI line as monotherapy	11/25 (44.0%)
Last ICI line as combination	14/25 (56.0%)

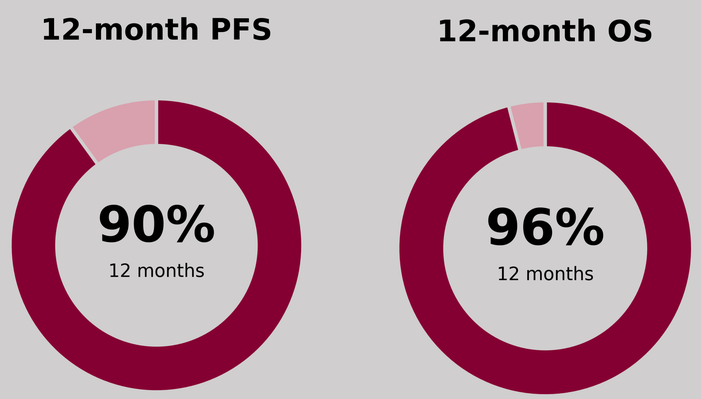
Median Interval from last CPI dose to ASCT: 42 days

B. POST-ASCT COMPLICATIONS AND OUTCOMES

Febrile neutropenia	14/25 (56.0%)
Peri-engraftment fever	11/25 (44.0%)
ICU stay	3/25 (12.0%)
Relapse post-transplant	3/25 (12.0%)
Engraftment syndrome	1/25 (4.0%)

C. SURVIVAL OUTCOMES

Median Follow-up: 14.3 months



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