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SURVIVAL TRENDS AFTER AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANTATION FOR LYMPHOMA: A SINGLE CENTER EXPERIENCE OVER TWO DECADES

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INTRODUCTION

Auto-HCT remains an essential tool in the management of patients with relapsed lymphomas, particularly in areas where access to novel therapies remains limited.

AIM

In this study, we examine trends in survival after auto-HCT at King Hussein Cancer Center (KHCC) in Jordan over the past 2 decades with emphasis on prior therapies, disease characteristics, and post-auto-HCT relapse.

METHOD

We conducted a retrospective analysis of all adult (age ≥18) patients who underwent auto-HCT at KHCC from 2003-2020.

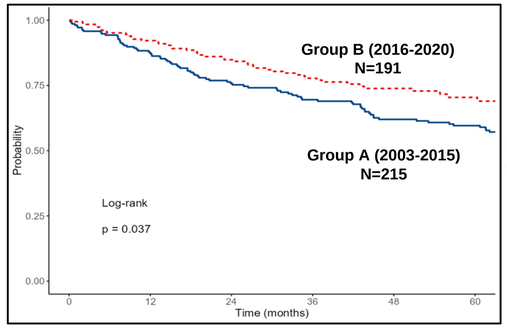
For outcome analysis, patients were divided into two cohorts based on the date of auto-HCT: (A) 2003-2015 and (B) 2016-2020.

Characteristics were compared using chi-square and Mann-Whiteny U tests. Time-to-event outcomes were estimated using the Kaplan-Meier method.

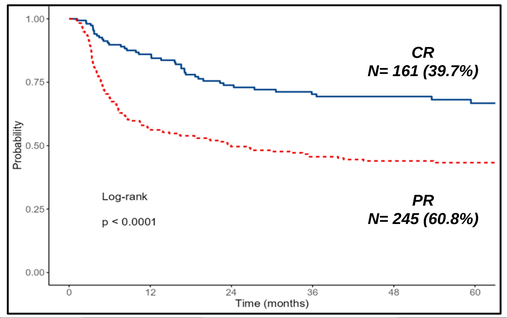
Statistical analysis was performed using SPSS V.25.

RESULTS

- *We identified 407 patients, with a median follow-up of 5.8 years (range 5.0-6.1). Median age was 34.6 years (range 19-71) and 223 (54.9%) patients were males.*
- *265 (65.3%) patients had Hodgkin lymphoma.*
- *167 (41.1%) had primary refractory disease.*
- *DHAP was the most common salvage regimen (47.8%), followed by GDP (20.6%) with 173 (42.6%) patients receiving >1 salvage regimen.*
- *BEAM was the most common conditioning regimen (N=373, 91.9%).*
- *Median overall survival (OS) was 11.9 years (95%CI 7.7-16.1). 5-year OS and RFS were 64.4% and 46.7%, respectively. Non-relapse mortality (NRM) was 7.9%.*
- *Patients in group B were more likely to receive radiotherapy (42.4% vs 32.1%,p=0.03), more likely to receive >1 salvage regimen (48.1% vs 37.9%,p=0.04), less likely to relapse post-auto-HCT (38.2% vs 49.8%, p=0.019) and more likely to receive allo-HCT at relapse post-auto-HCT (31.5% vs 17.8%, p=0.03). Although not statistically significant, patients in group B were also more likely to achieve CR before auto-HCT (43.5% vs 36.8%, p=0.17).*
- *Patients in group B had better OS (median NR vs 9.35 years, p=0.03), and better RFS (median 5.9 vs 2.2 years, p=0.04). Patients in group B also had a numerically lower NRM (5.8% vs 9.8%, p=0.13).*



Comparison of probability of survival between 2 eras over time



Survival probability based on pre-Treatment response

CONCLUSIONS

- Our results show significant and progressive improvement in auto-HCT outcomes over the past two decades.
- Improvement in outcomes is attributed to improvement in pre-transplant therapies, supportive care and lower NRM and increased utilization of post-transplant therapies, namely, allo-HCT.

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