OUTCOME OF HAPLOIDENTICAL HEMATOPOIETIC STEM CELL TRANSPLANTATION IN RESOURCE LIMITED SETTING

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Introduction

Haplo-HSCT offers an acceptable option for patients lacking an HLA-matched donor. HLA-haploidentical hematopoietic stem cell transplantation is now one of the most commonly employed alternative donor techniques, with most centers applying T-cell-replete strategies such as that developed by the Baltimore group using high- dose posttransplant cyclophosphamide.

Aims & Objectives

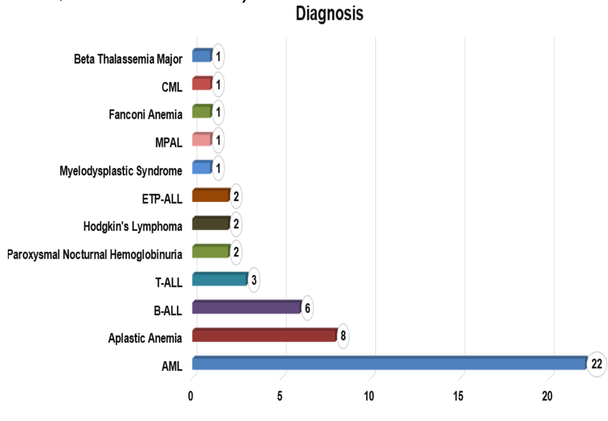
- To determine the outcomes of haploidentical transplant in our institute
- To estimate the overall survival (OS) & Progression free (PFS).

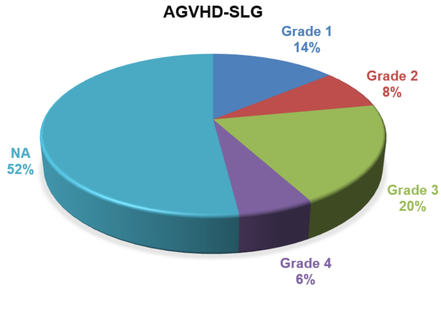
Methods

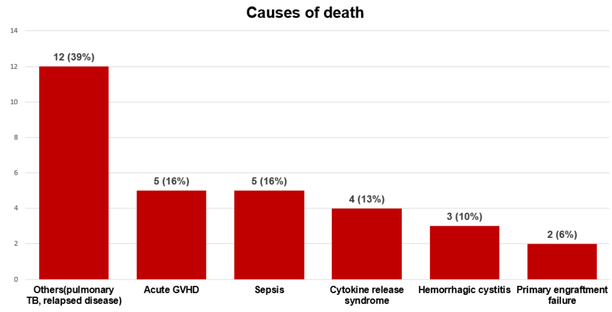
- Retrospective, observational study.
- All Haplo-Identical HSCT patients (50).
- 1st December 2016 to 30th Sep 2023.
- Peripheral blood in all cases except for two cases in which bone marrow stem cells were harvested.
- All stem cells harvested were infused (median CD34 dose was 6.5 millions cells/kg.

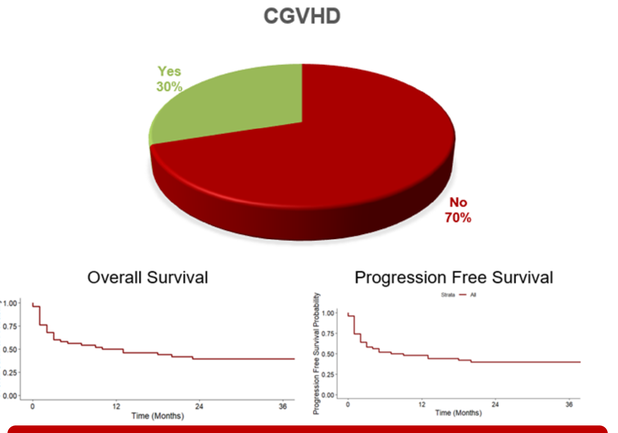
Results

Engraftment was noted at a median of 14 days. The cumulative incidence of Grade 3 & 4 Acute graft-versus-host disease was 26%. The cumulative incidence of chronic graft-versus-host disease was 30%. Two patients experienced primary graft failure. The incidence of disease relapse was 12%. The actuarial overall survival at 2 years was 40% (95% confidence interval, 27.9%-55.9%), and the progression-free survival was 40% (95% CI, 28.3%-56.0%).









Conclusions

Our study shows that haploidentical HSCT using PTCY with MMF/CSA combination is a good option for patients with no matched sibling, associated with prompt engraftment and acceptable rates of GVHD.

Summary

The findings suggest that Haplo-HSCT with PTCY-based prophylaxis is a feasible option for patients without matched donors, offering acceptable outcomes and manageable GVHD rates.

Discussion

This study reinforces the viability of haplo-HSCT in low-resource settings, offering patients a potentially curative treatment despite donor limitations. While GVHD remains a concern, the regimen used shows an acceptable safety profile and survival benefit. Future improvements could focus on enhancing supportive care, GVHD prophylaxis, and infection management to further improve outcomes.

References

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