soho2023
ELEVENTH ANNUAL MEETING

VR-CAP Alternating With R-DHAOx First-line Induction Regimen For Newly Diagnosed Mantle Cell Lymphoma (MCL): A Retrospective Review Of 10 Patients

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AMERICAN UNIVERSITY of BEIRUT MEDICAL CENTER
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Introduction

In younger patients who are transplant eligible, mantle cell lymphoma is treated by upfront chemoimmunotherapy, followed by autologous stem cell transplantation then maintenance rituximab. Multiple regimens and drugs have been studied in induction to improve the relapse rate. Data shows that including high dose cytarabine and bortezomib in the induction regimen have led to improved outcomes.

Aim

To determine the response rate, survival, and adverse events of the induction regimen VR-CAP (bortezomib, rituximab, cyclophosphamide, doxorubicin, prednisone) alternating with R-DHAP (rituximab, dexamethasone, high-dose cytarabine, platinum agent) followed by autologous stem cell transplantation and rituximab maintenance.

Method

Retrospective review of 10 patients who received the induction regimen VR-CAP alternating with RDHAP for a total of 6 cycles followed by autologous stem cell transplantation then rituximab maintenance at American university of Beirut Medical Center, Beirut, Lebanon from 2017-2023.

Results

-All completed 6 cycles without delay and proceeded to transplant then rituximab maintenance

-Complete remission (CR) rate after cycle 6 was 90%, the patient that didn't response and required second-line induction eventually relapsed after transplant.

-Median follow up after transplant, 24.8 months; all patients were alive at time of data collection with 9 out of 10 being in remission.

- Stem cell collection: 7 patients required only GCSF mobilization and one collection, 1 patient required 2 collection attempts, 1 patient required plerixafor, and 1 patient required cyclophosphamide mobilization.

Variable	Number
Median age (range)	55 (43-59)
Male Sex –No. (%)	7 (70%)
Stage – No. (%)	Stage III: 2 (20%) Stage IV: 8 (80%)
MIPI score – No.	Low: 3 Intermediate 4 High 2 Unknown 1
Auto-transplant – N (%)	10 (100%)
Rituximab maintenance	10 (100%)
Line of treatment	First line 9 (90%) Second line 1 (10%)

Results		
CR rate	90%	
Effect on stem cell yield	-7 patients: only GCSF and 1 attempt -1 patient 2 attempts -1 patient: Plerixafor mobilization -1 patient cyclophosphamide mobilization	
Median stem cell yield	4.88 (3.56-35.84)	
Adverse Effects	Neuropathy	Grade 1: 40%
	Thrombocytopenia	-Grade 3: 40% -Grade 4 : 40%
	Neutropenia:	-Grade 3: 20% -Grade 4: 60%
	Anemia:	-Grade 2: 20% -Grade 3: 10% -Grade 4: 40%

Conclusions

VR-CAP alternating with RDHAOx is an acceptable regimen for pretransplant induction chemotherapy in patients newly diagnosed with MCL, leading to a high remission rate and acceptable effect on stem cell yield with tolerable side effects

References

1. Armitage, J.O. and D.L. Longo, N Engl J Med, 2022
2. Dreyling, M., et al., Ann Oncol, 2017
3. National Comprehensive Cancer Network, *B-Cell Lymphomas Version 3.2023).* Cochrane Database Syst Rev, 2007.
5. Robak, T., et al., N Engl J Med, 2015.
6. Hermine, O., et al., Lancet, 2016.
7. Smith, S.D., et al., Clin Lymphoma Myeloma Leuk, 2019.

Acknowledgements

AUBMC haematologists and the patients who participated in this study

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