A dramatic response to lenalidomide based chemotherapy in a patient with multiply relapsed GCB-subtype diffuse large B cell lymphoma post allogeneic stem cell transplant

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Case History Background

- 60 Year Old female previously treated in 2010 with 6 cycles of RCHOP Chemotherapy for Tonsillar Diffuse Large B Cell Lymphoma (DLBCL) on a background of Follicular Lymphoma and went into a PET negative CR.
- Tolerated Allogeneic Stem Cell Transplant well with no GVHD.
- DLBCL relapse on cervical lymph node biopsy 8 months post transplant with diffuse positivity on PET-CT Scan.
- Treated with salvage platinum based chemotherapy (GCD) as a bridge to Donor Lymphocyte Infusion (DLI) therapy.
- Post 2 cycles of GCD, interval scan showed an increase in size of para aortic lymph nodes.
- Hospital Admission in July 2015 virtually moribund with jaundice secondary to biliary obstruction due to rapid disease progression. After initial response to high dose steroids, treatment was switched to R-Lenalidomide on a named patient basis.
- Molecular assessment of Engraftment before starting R-Lenalidomide showed a mean donor chimerism of 100%.

Response to R- Lenalidomide

CT Scan in July 2015 before starting R-Lenalidomide

CT Scan in October 2015 post 3 cycles of R-Lenalidomide

Marked improvement of abdomino-pelvic lymphadenopathy post R-Lenalidomide chemotherapy demonstrated by above CT scan images. This was accompanied by dramatic clinical response with ECOG performance status reducing from 3 to 0. No clinical evidence of GVHD with treatment and excellent response maintained up to current time.

CONCLUSIONS

- This case is interesting because it highlights the efficacy of Lenalidomide in a patient with GCB Subtype DLBCL.
- Meta analyses have shown that the response to lenalidomide in non GCB subtype DLBCL by Hans Criteria is better than in GCB subtype DLBCL although the numbers of patients studied are small. One retrospective study showed that the ORR rate was significantly higher in patients with non-GCB DLBCL than in GCB DLBCL patients (52.9 vs. 8.7%, P=0.006)1.
- This case also raises the question of the immuno-modulatory effect of Lenalidomide in a post transplant setting, especially given the lack of GVHD and major morbidity observed.

References