

# **Allogeneic Hematopoietic Stem Cell Transplant Outcomes in the Afro-Caribbean Population: A Single Center Study.**

Shah AM<sup>1</sup>, Ramos JC<sup>2</sup>, Wang TP<sup>3</sup>

<sup>1</sup>University of Miami Miller School of Medicine.

<sup>2</sup>Division of Hematology, Department of Medicine, Sylvester Comprehensive Cancer Center at the University of Miami Miller School of Medicine.

<sup>3</sup>Division of Transplantation and Cellular Therapy, Department of Medicine, Sylvester Comprehensive Cancer Center at the University of Miami Miller School of Medicine.

## **Background**

Adult T-cell leukemia-lymphoma (ATL) treatment is complicated by intrinsic chemoresistance and infections due to impaired immunity. Hematopoietic Stem Cell Transplant (HCT) is employed in eligible patients as curative therapy. However, the bulk of clinical data originates from Japan, with limited data in the form of small cohorts from other Human T-lymphotropic Virus 1 (HTLV-1) endemic regions. We present our single center HCT experience of HCT for ATL in the Afro-Caribbean population.

## **Methods**

We review charts for patients (pts) with ATL who underwent HCT at University of Miami from January 2011 to December 2021. Patient, disease, and HCT clinical data were collected.

## **Results**

Nine pts were identified with ATL, with 6 having lymphomatous subtype. Five were of Jamaican (Jm) descent, 1 was Bahamian (Bh), and 2 were Haitian (Ha). Age at transplant ranged from 36 to 63. Most pts received fludarabine and melphalan based conditioning (6/9) using alternative donor sources (8/9). 5/9 pts underwent HCT in complete remission, while 4/9 had partial response. Median Progression-Free Survival (PFS) was 6.8 months and Median Overall Survival (OS) was 14.2 months. Only 2 patients are alive at the time of data cut off. 100-day mortality was notable in 3/9 pts, as well as risk of relapse (4/9). Graft failure occurred in 3/9 pts, 2 of which were primary graft failure. Opportunistic infections were common including CMV viremia (7/9), TB (1/9) reactivation and fungal pneumonia (3/9).

## **Conclusion**

Long term survival after HCT remains poor, with high rates of relapse as well as treatment related mortality. The lack of matched donors for pts of Afro-Caribbean descent leads to frequent use of alternative donors. Despite use of post-transplant cyclophosphamide, there continues to be increased complications including graft failure and opportunistic infections. There remains a glaring need for more effective transplant and maintenance strategies in ATL.

## **Disclosure of Interest Statement:**

Shah, Ramos, and Wang have no disclosures.