ELSEVIER

Blood 142 (2023) 6271

The 65th ASH Annual Meeting Abstracts

**ONLINE PUBLICATION ONLY**

## 627.AGGRESSIVE LYMPHOMAS: CLINICAL AND EPIDEMIOLOGICAL

### Epidemiology and Independent Prognostic Factors of Patients with Hepatosplenic T-Cell Lymphoma over the Past 2 Decades

*Ayrton I Bangolo, MBBS*[1], *Shraboni Dey, MBBS*[2], *Rohan Mehta, MD*[3], *Amer I Jarri, MD*[4], *Stacy H. Lee, MD*[4], *Simcha I Weissman, DO*[4], *Christina Cho, MD*[5]

[1] Hackensack Meridian Health/Palisades Medical Center, Edgewater, NJ
[2] Plaisades Medical Centre, North Bergen, NY
[3] Jersey Shore University Medical Center, Neptune City, NJ
[4] Hackensack Meridian Health/Palisades Medical Center, North Bergen, NJ
[5] Stem Cell Transplantation and Cellular Therapy Program, John Theurer Cancer Center, Hackensack Meridian Health, Hackensack, NJ

**Background**: Hepatosplenic T-cell lymphoma (HSTCL) is a rare and aggressive peripheral T-cell lymphoma with historically dismal outcomes, representing less than one percent of non-Hodgkin lymphomas. Given its rarity, the true incidence of HSTCL is unknown and most data have been extrapolated through case reports. To the best of our knowledge, the largest and most up to date study addressing the epidemiology and outcomes of patients with HSTCL in the United States covered a period from 1996 to 2014, with a sample size of 122 patients. The aim of this study is to investigate the clinical characteristics, survival outcomes, and independent prognostic factors of patients with neuroblastoma over the past two decades with a larger sample size.

**Methods**: A total of 186 patients diagnosed with HSTCL, between 2000 and 2017, were ultimately enrolled in our study by retrieving data from the Surveillance, Epidemiology, and End Results (SEER) database. We analyzed demographics, clinical characteristics, and overall mortality (OM) as well as cancer-specific mortality (CSM) of HSTCL. Variables with a p value <0.01 in the univariate Cox regression were incorporated into the multivariate Cox model to determine the independent prognostic factors, with a hazard ratio (HR) of greater than 1 representing adverse prognostic factors.

**Results**: Our cohort had a male predominance (68.82%). Most patients were diagnosed between the age of 40- and 59-year-old (36.02%) and HSTCL was least common among patients 80 years old and older (6.45%). Non-Hispanic whites (60.75%) and non-Hispanic blacks (20.97%) were most represented. Univariate cox proportional hazard regression analyses of factors affecting all-cause mortality revealedhigher overall mortality among non-Hispanic black patients (HR= 1.97, 95% CI 1.27-3.07, p<0.01). CSM was higher among non-Hispanic blacks (HR= 2.34, 95% CI 1.47-3.72, p<0.01) and patients with distant metastasis (HR= 2.23, 95% CI 1.24-4.02, p<0.01). Multivariate cox proportional hazard regression analyses of factors affecting CSM revealedhigher mortality in patients aged 80 or older (HR= 4.72, 95% CI 1.14-19.54, p<0.05) and non-Hispanic blacks (HR= 2.02, 95% CI 1.08-3.7, p<0.05). Surgery, radiation and B symptoms did not affect the overall mortality, nor did they affect the CSM.

**Conclusion**: Overall the prognosis of this rare malignancy is very dismal. In this United States population-based retrospective cohort study using the SEER database, we found that non-Hispanic blacks and patients 80 and above had a higher CSM. Furthermore, cancer directed surgery, marital status and distant metastasis did not affect mortality. While one would expect older patients to have a poorer prognosis, it remains unclear why one racial/ethnic group would be at higher risk as well. This data paves the way for larger prospective studies addressing factors associated with worse prognosis in non-Hispanic blacks, such as delay in treatment, which has been shown to worsen mortality in this racial/ethnic group in other malignancies.

**Disclosures** No relevant conflicts of interest to declare.

https://doi.org/10.1182/blood-2023-185003