Improved Survival of Elderly Patient's with Hodgkin Lymphoma in the Modern Era- SEER Registry Analysis

Harsh Shah Do[1], Kim Seongho PhD[2], Ahmad Halwani MD[1], Jang Hyejeong PhD[2]
[1]Huntsman Cancer Institute, Salt Lake CIty, USA. [2]Karmanos Cancer Center, Detroit, USA

Abstract

- To assess the effect of improvement in treatment strategies and increased access to medical care on the survival of elderly cHL patients, we conducted a SEER 18 registry analysis of cHL patients greater than 60-year-old and compared outcomes of those diagnosed between 2006-2010 (cohort 1) to those diagnosed between 2011-2015 (cohort 2) based on treatment era and race.
- Cohort 1 had median OS of 4 years (3.58-4.50) and Cohort 2 had median OS of 4.75 years (4.25-5.67) with HR of .92 (0.85-1.00; p=.052). NHBs had similar OS compared to NHWs with HR of .95 (0.79-1.13; p> .99) while Hispanics had worse OS with HR of 1.24 (1.09-1.40; p < .001).
- In the MVA, older age, male gender, stage III-IV, unmarried status, Hispanic race, lack of chemotherapy, and diagnosis in 2006-2010 were associated with worse OS.

Background

- While patients over age 60 comprise less than 25% of new cases, they account for over 60% of deaths from cHL signifying poor prognosis in this group with 5-year overall survival of only 65%
- Historically, Blacks and Hispanics have been shown to have decreased 5 -,10-, and 15-year overall survival (regardless of age) compared to non-Hispanic whites who are diagnosed with cHL in the US National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) analysis

Materials/Methods

- SEER 18 registry had patient follow up until Dec 2016
- Cohort 1 included >60-year-old patients diagnosed from 2006-2010 while Cohort 2 included >60-year-old patients diagnosed in a more recent (modern) era between 2011-2015
- Native American and Alaskan natives, including unknown race, were excluded from this analysis due to small numbers.
- Kaplan-Meier estimates were used to summarize the distributions of overall survival (OS) by treatment era and by race.
- Lymphoma-specific overall survival (LSS) was assessed in subset of patients in whom cHL was the primary tumor.

Objectives

- The primary objective of the study was to compare OS based on treatment era and race.
- The secondary objective was to compare lymphoma-specific survival based on treatment era and race.
- Additional objectives of the study were to analyze the associations between prior chosen factors (age, sex, race, stage at diagnosis [I-II vs III-IV], type of cHL (MC vs NS vs others), marital status [married vs others], treatment-era [cohort 1vs cohort 2], chemotherapy status (yes vs no/unknown) and OS.

Results

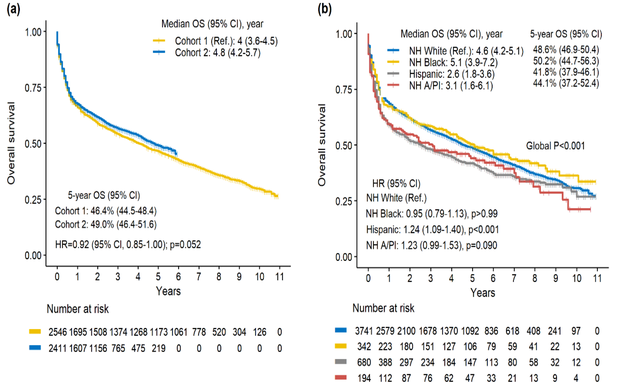


Figure 1: Overall survival based on Treatment Era and Race

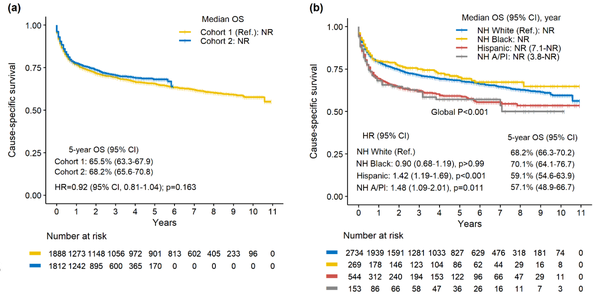


Figure 2: Lymphoma specific survival based on Treatment Era and Race

Summary

- In this SEER analysis, we found that elderly cHL patients who were diagnosed with cHL after 2010 had improved survival by about 9 months compared to patients diagnosed before 2010.
- The improved 5-year overall and lymphoma-specific survival likely reflects improvement in treatment modalities and uptake of targeted agents in elderly population.
- Lastly, we did not see any difference in survival of NHBs compared to NHWs unlike in previous SEER analysis; however, Hispanic patients had worse OS compared to NHWs.

Discussion

- Contrary to previous SEER analysis from 1992-2007 in all cHL patients, we did not find a significant difference in overall survival between elderly NHW and NHB patients during 2006-2015 (5-year OS of 48.6% in NHWs vs 50.2% in NHBs).
- States such as Florida and Texas with traditionally high Hispanic population did not participate in Medicaid expansion; this could be responsible for disparity in survival of Hispanics compared to NHWs between 2011-2015, however equal survival of Blacks compared to NHWs

References

Engert, A., *Treatment of elderly Hodgkin lymphoma patients.* Hematol Oncol, 2019. **37 Suppl 1**: p. 92-94

Engert, A., et al., *Hodgkin's Lymphoma in Elderly Patients: A Comprehensive Retrospective Analysis From the German Hodgkin's Study Group.* Journal of Clinical Oncology, 2005. **23**(22): p. 5052-5060..

Evens, A.M., et al., *Racial disparities in Hodgkin's lymphoma: a comprehensive population-based analysis.* Ann Oncol, 2012. **23**(8): p. 2128-37.