

Socioeconomic and Geographic Disparities in Survival Outcomes Among Patients With Hairy Cell Leukemia: A Population-Based Analysis of Two Decades



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INTRODUCTION

- Hairy cell leukemia (HCL) is a rare, indolent B-cell lymphoproliferative neoplasm with generally favorable outcomes.
- Despite advances in therapy, population-level survival disparities remain incompletely characterized.
- Socioeconomic and geographic factors may influence access to specialized care, treatment, and longitudinal follow-up.
- We evaluated the association of sex, race/ethnicity, household income, and residential area with 5-year overall survival in HCL.

AIM

- Assess whether **sex and race/ethnicity** are associated with 5-year overall survival in HCL.
- Evaluate the impact of **household income** on survival.
- Examine survival differences between **rural and urban residence**.

METHOD

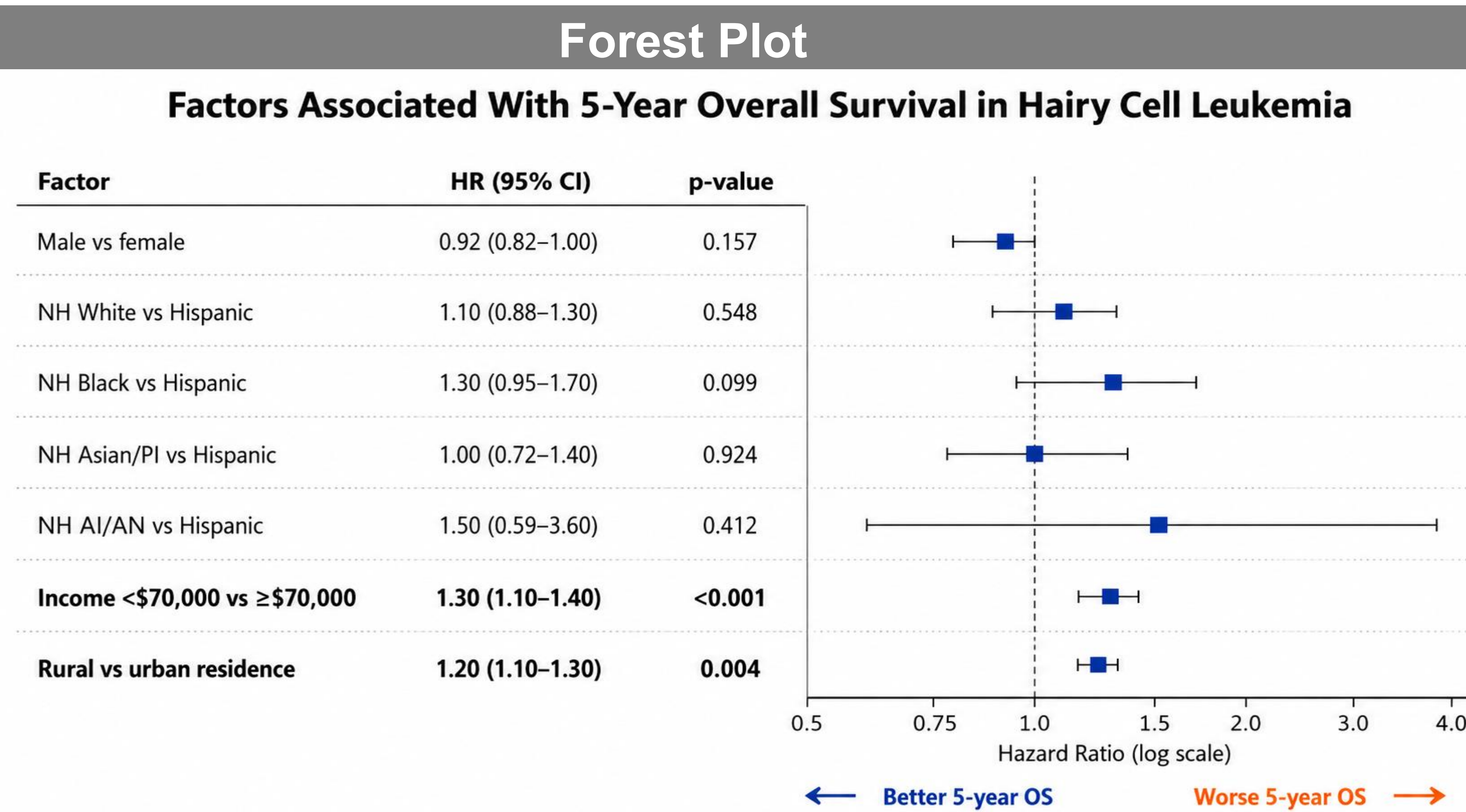
- Retrospective population-based study using the **SEER database, 2000–2021**.
- Included patients with HCL identified using **ICD-10 code C91.4**; patients with missing demographic, socioeconomic, geographic, or survival data were excluded.
- Kaplan-Meier analysis and log-rank testing** were used to compare 5-year survival.
- Multivariable Cox proportional hazards regression** estimated hazard ratios for 5-year OS

CONCLUSIONS

- Lower household income (<\$70,000)** was associated with significantly worse 5-year overall survival in HCL.
- Rural residence** was also independently associated with inferior 5-year survival.
- Sex and race/ethnicity were not significant predictors** of 5-year OS in this cohort.
- These findings highlight the potential impact of **socioeconomic and geographic barriers to care** in an otherwise highly treatable leukemia.

RESULTS

STUDY POPULATION	
Characteristic	n
Male	4,344
Female	1,150
Hispanic	523
Non-Hispanic White	4,581
Non-Hispanic Black	195
Non-Hispanic Asian/Pacific Islander	180
Non-Hispanic American Indian/Alaska Native	15



ACKNOWLEDGEMENTS

We acknowledge the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) Program and participating cancer registries for providing the population-based data used in this study. The interpretation and conclusions presented are solely those of the authors

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