

The Age-Race Paradox in Multiple Myeloma: Younger Diagnosis but Persistent Early Mortality Among Black Patients in the United States

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INTRODUCTION

Multiple myeloma (MM) exhibits one of the largest racial disparities among hematologic malignancies in the United States. Although Black patients have the highest MM incidence and are diagnosed at younger ages, it remains unclear whether this diagnostic advantage translates into equivalent survival outcomes in the modern treatment era.

AIM

To evaluate the age-race paradox in MM by comparing racial differences in disease burden and early mortality across age groups in the United States.

SETTING: United States population-based cancer registry.

PARTICIPANTS: Adults diagnosed with MM in SEER registries.

METHOD

Retrospective population-based analysis using SEER (Surveillance, Epidemiology, and End Results) cancer statistics and registry data. Incidence and mortality were evaluated using SEER 21 data from 2019 to 2023 and United States mortality data from 2020 to 2024. Early mortality was assessed using a SEER cohort of adults diagnosed with MM from 2000 to 2019. Outcomes were stratified by race/ethnicity and sex, focusing on Non-Hispanic (NH) Black, NH White, Hispanic, and Asian/Pacific Islander populations.

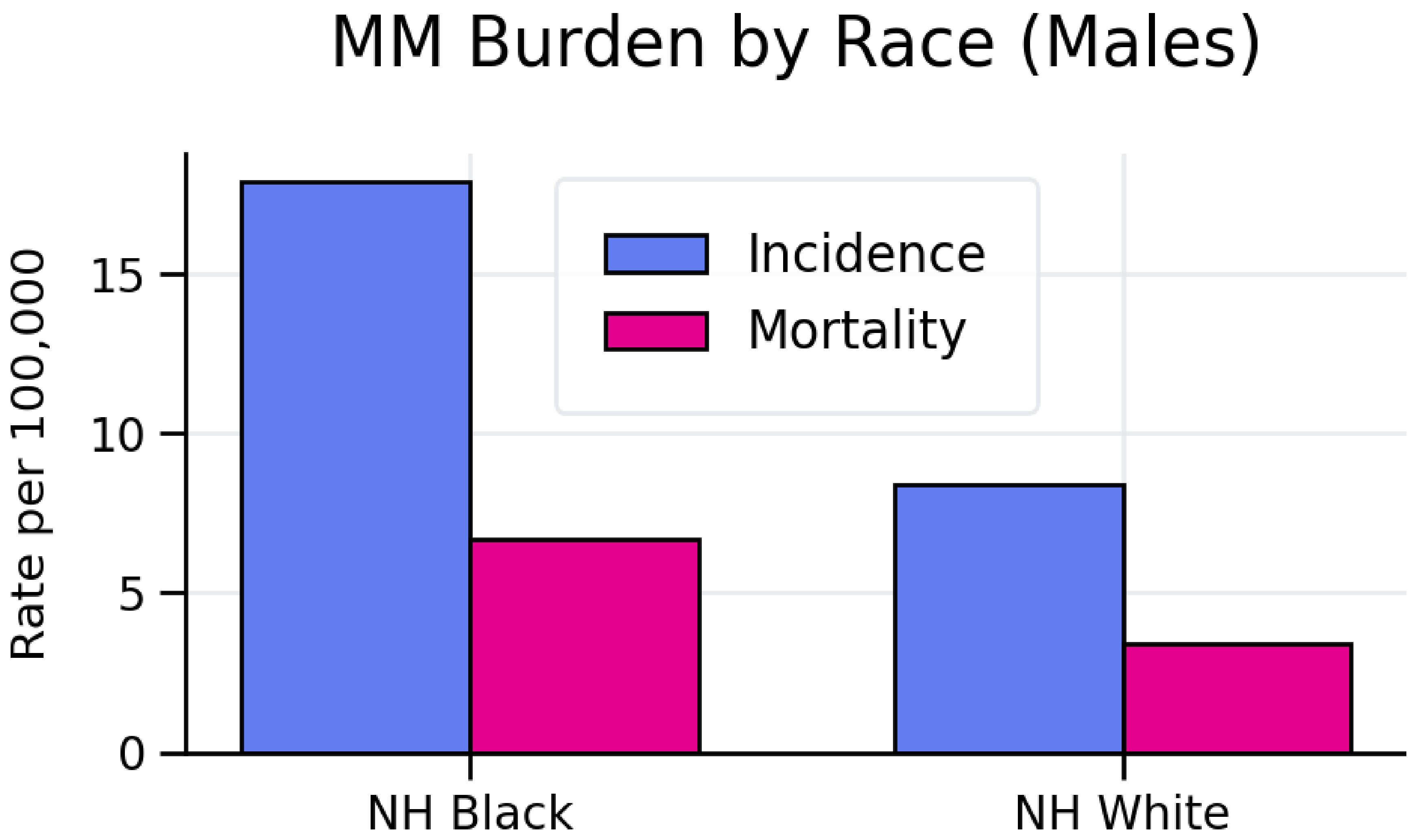
CONCLUSIONS

Despite younger age at diagnosis, Black patients experience a disproportionate MM burden and higher early mortality. These findings support an age-race paradox and suggest that biologic age advantage does not overcome disparities in diagnosis, treatment access, and care. Targeted interventions in the first 2 years after diagnosis may reduce racial survival gaps.

RESULTS

SEER estimates 36000 new MM cases and 10850 deaths in the United States in 2026. The age-adjusted incidence rate was 7.4 per 100000 persons, and the death rate was 2.8 per 100000. Five-year relative survival for 2016–2022 was 63.7%. Incidence was highest among NH Black patients (17.9 per 100000 males, 13.4 females) compared with NH White patients (8.4 males, 5.2 females). Mortality showed a similar pattern (6.7 and 4.6 vs 3.4 and 2.0 per 100000, respectively). Among 77374 adults diagnosed for 2000–2019, 36% died within 2 years. NH Black and Hispanic patients had higher adjusted odds of early mortality than NH White patients (odds ratio, 1.10 and 1.21, respectively).

Figure 1. Racial disparities in multiple myeloma incidence and mortality among males in the United States. NH- Non-Hispanic



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