

Socioeconomic Disparities in Pituitary Adenomas Outcomes

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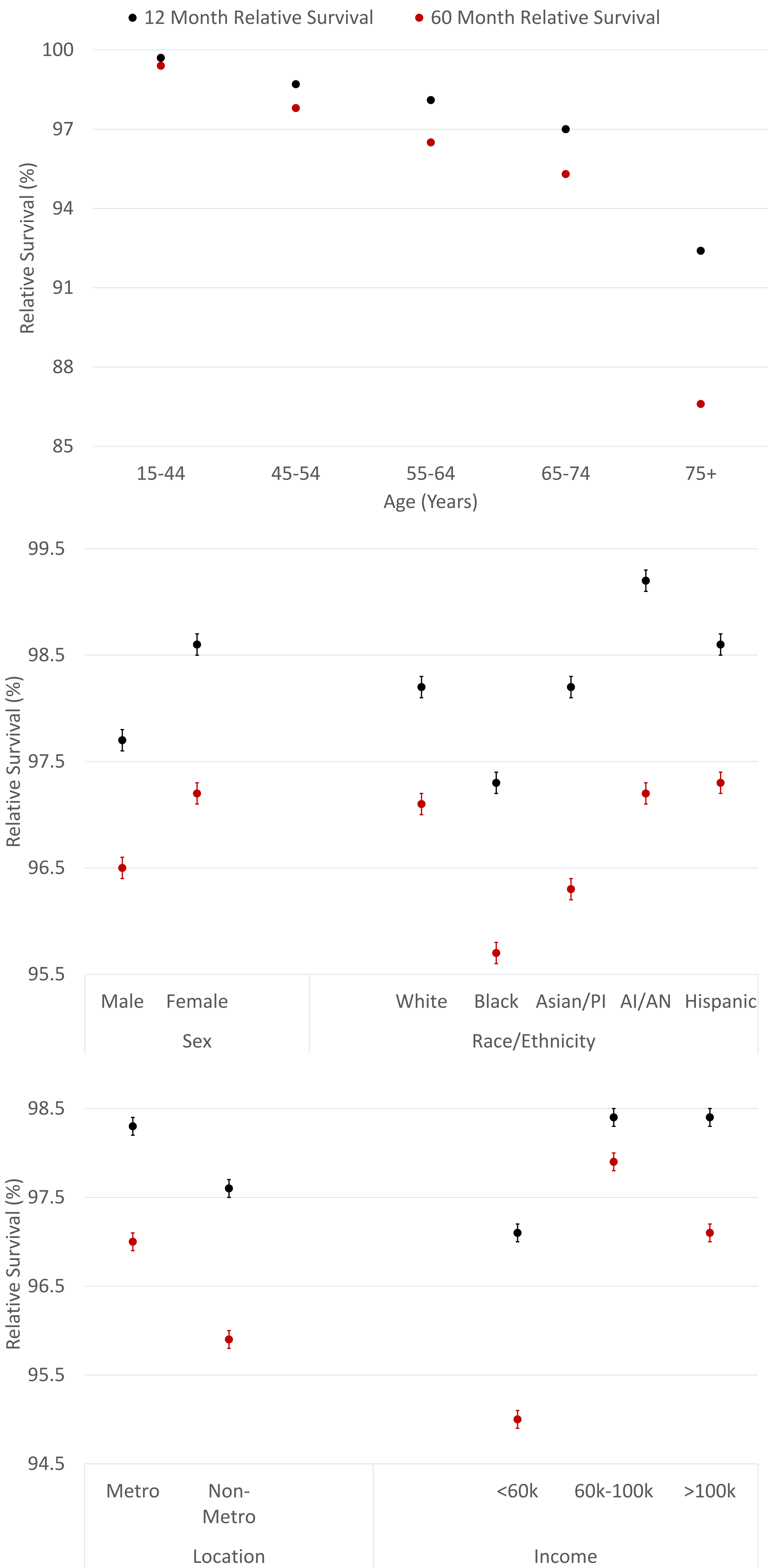
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Introduction

- Pituitary adenomas account for 10-15% of intracranial masses
- Though mostly benign, rarely they can cause mortality due to proximity to nearby structures and hormonal effects
- Socioeconomic status (SES) and demographics have shown to effect severity at presentation and treatment outcomes for various diseases
- Black race has been associated with longer length of stay and higher 90-day mortality in patients with giant adenomas
- White patients have higher remission rates for Cushing’s disease and acromegaly

Figure 1: Relative Survival Rates for Patients with Pituitary Adenomas



Methods and Materials

- Retrospective database review using National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) database
- Queried for patients with **primary site pituitary tumors (AYA site code 3.8)**
- Primary end result was considered 5-year **relative survival**, calculated as the ratio between observed survival and expected survival of cohort
- Survival rates were compared between cohorts based on **age, sex, race/ethnicity, median household income of the county, and metropolitan vs. urban status**

Results

Table 1: Relative Survival Rates for Patients with Pituitary Adenomas

Total: 72,763 Patients		1-Year Relative Survival (95%CI)	5-Year Relative Survival (95%CI)
Age (years)	15-44	99.7 (99.6-99.8)	99.4 (99.3-99.5)
	45-54	98.7 (98.6-98.8)	97.8 (97.7-97.9)
	55-64	98.1 (98-98.2)	96.5 (96.4-96.6)
	65-74	97 (96.9-97.1)	95.3 (95.2-95.4)
	75+	92.4 (92.3-92.5)	86.8 (86.7-86.9)
Sex	Male	97.7 (97.6-97.8)	96.5 (96.4-96.6)
	Female	98.6 (98.5-98.7)	97.2 (97.1-97.3)
Race/ Ethnicity	White	98.2 (98.1-98.3)	97.1 (97-97.2)
	Black	97.3 (97.2-97.4)	95.7 (95.6-95.8)
	Asian/PI	98.2 (98.1-98.3)	96.3 (96.2-96.4)
	AI/AN	99.2 (99.1-99.3)	97.2 (97.1-97.3)
	Hispanic	98.6 (98.5-98.7)	97.3 (97.2-97.4)
Location	Metro	98.3 (98.2-98.4)	97 (96.9-97.1)
	Non-Metro	97.6 (97.5-97.7)	95.9 (95.8-96)
Income	<60k	97.1 (97-97.2)	95 (94.9-95.1)
	60k-100k	98.4 (98.3-98.5)	97.9 (97.8-98)
	>100k	98.4 (98.3-98.5)	97.1 (97-97.2)

Abbreviations: PI—Pacific Islander, AI—American Indian, AN—Alaskan Native

Discussion

- Pituitary adenomas worsen survival more for patients who are older, male, black, rural, and lower income
- Despite only small differences in mortality rates, the high volume of cases leads to a significant number of deaths**
- These differences may be due to factors such as worse disease at presentation, differences in treatment decisions, and less access to high-volume centers
- Better understanding of these discrepancies is important to providing equitable healthcare in the future

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