

Racial Disparity in Short-term Outcomes and Hospital Costs in Pediatric Patients Undergoing Craniotomy for Resection of Brain Tumors: Insights from Kids' Inpatient Database (KID)

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Introduction

Despite meticulous efforts in providing affordable insurance coverage, disparities in access to healthcare resources and outcomes seem evident. We investigate racial disparity in short-term outcomes and costs in pediatric patients undergoing craniotomy for brain tumor resection.

Methods

Study design: An observational, cohort study using the HCUP KID databases to identify all patients harboring malignant, benign (meningioma and vestibular schwannoma) and pituitary tumors was formulated.

Outcome endpoints: Inpatient mortality, discharge disposition, LOS, cost, and post-operative complications (cardiac; neurological; DVT; pulmonary embolism; treated hydrocephalus, wound infections and complications).

Exposure variable: Primary exposure variable of interest was to evaluate racial differences in outcome endpoints (African Americans, Hispanics, Asians, others with reference to Caucasians).

Statistical methods: Each tumor subtype analyzed separately by

Results

Significant racial disparities for various outcomes for individual tumor types in pediatric patients was noted. Quantification of differences from regression analysis are depicted in corresponding forest plots for individual outcomes.

Conclusions

Our results quantify estimates across diverse racial population with four subtypes of brain tumors in pediatric age groups. The data provides supporting evidence for policy makers to formulate tailored measures to mitigate these differences.

Learning Objectives

1.)To provide a brief overview of population-based cohort data on the magnitude of racial disparity in post-craniotomy outcomes and costs in pediatric patients.

References

Rhee D et al. A novel multispecialty surgical risk score for children. *Pediatrics*. 2013 Mar;131(3):e829-36.