Readmission Rates After Intracranial Tumor Resection Surgery In Children

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Disclosures

• None
Background

• The risk of readmission after brain tumor resection among pediatric patients has not been defined

• The authors' objective was to evaluate the readmission rates and predictors of readmission after pediatric brain tumor resection.
Methods

• Nationwide Readmissions Database (NRD) data sets from 2010 to 2014 were searched for unplanned readmissions within 30 days of the discharge date after pediatric brain tumor resection surgery

• Patient demographic variables included sex, age, expected payment source (Medicaid or private insurance), and median annual household income

• Readmission events for chemotherapy, radiation therapy, or further tumor resection were not included.
Results

• Of 282 patients (12.7%) readmitted within 30 days of the index event, the median time to readmission was 10 days (IQR 5-19 days)

• The most common reason for readmission was hydrocephalus, which accounted for 19% of readmission events

• Other CNS-related complications (24%), surgical site infections or septicemia (14%), seizures (7%), and hematological disorders (7%) accounted for other major readmission events
Figure 1: Risk of unplanned readmission within 30 days of discharge, based on factors during index admission, demographics, and disease-specific features (unadjusted odds ratios, n = 2225 unless otherwise indicated)
Figure 2: Kaplan-Meier curve depicting the proportion of patients without unplanned readmissions within 30 days of discharge from the index event.
Results

- The median charge for readmission events was $35,431, and the median length of readmission stay was 4 days.

- In multivariate regression, factors associated with a significant increase in readmission risk included Medicaid as the primary payor, discharge from the index event with home health services, and fluid and electrolyte disorders during the index event.
Conclusions

• More than 10% of pediatric brain tumor patients have unplanned readmission events within 30 days of discharge after tumor resection

• Medicaid patients and those with preoperative or early postoperative fluid and electrolyte disturbances may benefit from early or frequent outpatient visits after tumor resection