Short-term outcomes of craniotomy for malignant brain tumors in the elderly.

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Abstract

BACKGROUND: Disparity in resection rates for malignant brain tumors in elderly patients is partially attributed to a belief that advanced age is associated with an increased risk of postoperative morbidity and mortality. The objective of this study was to investigate the effect of advanced age (≥75 years) on 30-day outcomes in patients with primary and metastatic brain tumors who underwent craniotomy for definitive resection of a malignant brain tumor. METHODS: The authors conducted prospective analyses of the American College of Surgeons' National Surgical Quality Improvement Project (NSQIP) database from 2006 to 2010 of 970 patients aged ≥40 years who underwent craniotomy for definitive resection of neoplasm. Preoperative and intraoperative characteristics and 30-day outcomes were stratified by age. By using propensity scores, 134 patients (aged ≥75 years) were matched to 134 patients ages 40 to 74 years. Logistic regression was used to predict adverse postoperative outcomes. RESULTS: The median length of hospital stay was 5 days; the rate of minor and major complications were 5.9% and 13.1%, respectively; 5.7% of patients returned to the operating room; and 4.3% of patients died within 30 days. Advanced age did not increase the odds for poorer short-term outcomes. CONCLUSIONS: Advanced age did not increase the risk of poor outcomes after surgical resection of primary or metastatic intracranial tumors when analyses were controlled for other risk factors. These results suggest that age should not be used, in isolation, as an a priori factor to discourage pursuing craniotomy. Cancer 2012. © 2012 American Cancer Society.

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