

SEIZURES IN PATIENTS WITH NEWLY DIAGNOSED GLIOMA: FREQUENCY AND DETERMINANTS

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BACKGROUND

Seizures are a common manifestation of gliomas. The frequency of seizures is generally reported to be inversely correlated with tumor grade. Tumor resection is a favorable predictor of seizure control in these patients. The study aims at 1- assessing the frequency of seizures in a large group of patients with newly diagnosed glioma undergoing neurosurgery and identifying the factors associated with these seizures; and 2- assessing the seizure control rate in the postoperative period and its determinants.

METHODS

Patients with newly diagnosed glioma undergoing a biopsy or resection at MD Anderson Cancer Center between June 1993 and December 2015 were included. Excluded were patients with missing imaging data and those with greater than 3 tumors at diagnosis. Data on tumor histology, WHO grade, location, patient age, gender, use of anticonvulsants, and other relevant patient, tumor and clinical characteristics were obtained. The study was conducted under the auspices of an institutional review board approved protocol.

RESULTS

Data was obtained on 2,106 patients with glioma (58% WHO grade 4; 18% grade 3; 20% grades 1 or 2; and 4% unclassified). Median age was 53 years (4% pediatric patients); 58% were males. The tumor was located supratentorially in 91% and infratentorially in 8% (1% had both locations). Seizures were noted preoperatively in 735 (35%). In the 30-day postoperative period, seizures were noted in 89 patients (4%) overall (6% among those with a preoperative history of seizures and 3% among those without). The full results/conclusions will be presented at the meeting.