SM-04. PROPHYLACTIC ANTIEPILEPTIC DRUGS DO NOT REDUCE SEIZURE RATES IN SURGICAL BRAIN TUMOR PATIENTS

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Though no clear evidence supports seizure prophylaxis in patients with cerebral tumors, prophylactic use of anti-epileptic drugs (AEDs) for patients undergoing tumor surgery is common practice. A retrospective chart review was performed of 609 consecutive patients from 2010-2013 who underwent surgery for brain neoplasms at the University of Florida. Patients who did not present with seizures preoperatively were divided into supratentorial and infratentorial groups. There were 357 patients with supratentorial tumors with 297 (83.2%) receiving AEDs post-operatively and 60 (16.8%) not receiving AEDs. From surgery to last follow-up, one patient (2%) in the non-AED group had a seizure and 15 (6.2%) in the AED group had seizures ($p = 0.487$). There were 129 patients with infratentorial tumors, with 32 (24.8%) receiving AEDs and 97 (75.2%) not receiving AEDs. In the post-operative period, one patient (1.2%) in the non-AED group had a seizure and zero in the AED group had a seizure ($p = 1$). 16 (5.4%) patients in the supratentorial group and 3 (9.4%) patients in the infratentorial group on AEDs experienced toxicity related to AEDs. At discharge, 254 patients (85.5%) with supratentorial tumors without seizures remained on AEDs. At last follow up, 129 patients (53.8%) with supratentorial tumors without seizures remained on AEDs despite no seizures. AEDs do not significantly reduce post-operative seizures in surgical brain tumor patients in this analysis. Additionally, once a patient is prescribed an AED, discontinuation of AED therapy is unlikely, even if the patient remains seizure free.