

Antiepileptic drug prophylaxis in glioblastoma

The use of [antiepileptic drugs](#) (AEDs) in [glioblastoma](#) patients suffering from [seizures](#) is well accepted. However, the role of long-term AED use in patients with glioblastoma without a history of seizures is controversial.

Wali et al. performed a [literature review](#) to identify studies that examined the use of AEDs in seizure-free glioblastoma patients. They identified one randomized controlled study suggesting no clinical benefit of seizure prophylaxis in this population. Three of the four retrospective studies identified in the search recapitulated this finding, while the remaining study suggested a benefit for prophylactic AED use. All identified studies were focused on seizure incidence in the post-operative period, ranging from 1 week to long-term follow up ¹⁾.

No difference was found in seizure occurrence between patients with glioblastoma multiforme compared with other tumor types (odds ratio 1.75, $p = 0.1468$). No difference was found in time-to-seizure between the two groups (hazard ratio 1.38, $p = 0.3776$). These data show no statistically significant benefit to prophylactic postoperative AED and a nonsignificant trend for increased seizure risk with AEDs. A randomized, placebo-controlled trial is needed to clarify the benefit of postoperative AED use for brain tumor resection ²⁾.

¹⁾

Wali AR, Rennert RC, Wang SG, Chen CC. Prophylactic anticonvulsants in patients with primary glioblastoma. J Neurooncol. 2017 Jul 28. doi: 10.1007/s11060-017-2584-8. [Epub ahead of print] Review. PubMed PMID: 28755321.

²⁾

Ansari SF, Bohnstedt BN, Perkins SM, Althouse SK, Miller JC. Efficacy of postoperative seizure prophylaxis in intra-axial brain tumor resections. J Neurooncol. 2014 May;118(1):117-22. doi: 10.1007/s11060-014-1402-9. Epub 2014 Feb 17. PubMed PMID: 24532242; PubMed Central PMCID: PMC4023013.

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