

IS THERE AN ASSOCIATION BETWEEN ANTIEPILEPTIC DRUG USE AND DEMENTIA RISK? A CASE-CONTROL STUDY.

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BACKGROUND:

Previous research has found a positive association between the use of antiepileptic drugs (AEDs) and dementia. However, there have been some concerns about the generalizability of its findings.

OBJECTIVE:

The goal of this case-control study was to analyze the association between AED use and dementia risk in Germany.

METHODS:

This study included patients who had received a first dementia diagnosis from one of 1,203 general practitioners or 202 neuropsychiatrists between 2013 and 2017 (index date). Controls without dementia were matched (1:1) to dementia cases by age, gender, physician, diagnosis of mild cognitive impairment, and observation time prior to the index date. Two regression models were used to analyze the association between AED use and dementia risk after adjusting for comorbidities and co-prescribed drugs. AEDs were included as a dichotomous variable in Model 1 (ever versus never use) and as a continuous variable in Model 2 (duration of treatment in years).

RESULTS:

A total of 50,575 cases with dementia and 50,575 controls without dementia were included in this study. Model 1 (odds-ratio [OR]=0.99) and Model 2 (OR=1.00) showed no significant association between AED use and dementia risk. However, prescriptions for levetiracetam generic brands (Model 1: OR=1.70; Model 2: OR=1.36) were associated with an increased dementia risk.

CONCLUSIONS:

Overall, AED use was not significantly associated with dementia risk in patients followed by general practitioners and neuropsychiatrists in Germany between 2013 and 2017. Nonetheless, the potential deleterious effects of levetiracetam generic brands on cognition deserve further investigation.

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Thank you for your interest!