

ASSOCIATION BETWEEN THE USE OF ANTIHYPERGLYCEMIC DRUGS AND DEMENTIA RISK: A CASE-CONTROL STUDY

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BACKGROUND

There is a conflicting literature on the association between the use of antihyperglycemic drugs and dementia risk.

OBJECTIVE

The goal of this case-control study was to analyze the association between the use of antihyperglycemic drugs and dementia risk in patients followed in general practices in Germany.

METHODS:

This study included patients with type 2 diabetes mellitus who had received a first dementia diagnosis in 972 general practices in Germany between January 2013 and December 2017 (index date). Controls without dementia were matched (1:1) to cases by age, gender, index year, and physician. Two multivariate regression models were used to study the association between the use of antihyperglycemic drugs and dementia risk. Model 1 included all antihyperglycemic drugs prescribed to patients regardless of the prescription duration, whereas Model 2 only included the longest therapy prescribed to each patient.

RESULTS

There were 8,276 diabetes patients with dementia and 8,276 diabetes patients without dementia included in this study. In Model 1, glitazones were associated with a decreased dementia risk (odds ratio [OR] = 0.80), whereas insulin was associated with an increased risk of developing the condition (OR = 1.34). In Model 2, metformin, prescribed as monotherapy (OR=0.71) or as dual therapy with sulfonylureas (OR=0.90), was associated with a decrease in the likelihood of subsequently being diagnosed with dementia. By contrast, the combination of basal insulin and bolus insulin (OR=1.47) and premix insulin (OR=1.33) were risk factors for dementia.

CONCLUSION

Metformin and glitazones were negatively associated with dementia, while insulin was positively associated with dementia.

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If you would like to read any of the studies in its entirety, please, contact us to obtain the full version of a publication. Also, our research director is at your disposal if you have any further questions.

Thank you for your interest!