Antipsychotic medications linked to increased risk of pneumonia in persons with Alzheimer's disease

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Antipsychotic medications are associated with an increased risk of pneumonia in persons with Alzheimer's disease (AD), according to new research from the University of Eastern Finland. The risk of pneumonia was the highest at the beginning of antipsychotic treatment, remaining elevated also in long-term use. No major differences were observed between the most commonly used antipsychotics.

Pneumonia was listed as one of the leading causes of death in the FDA's 2005 warning on the use of antipsychotics for the treatment of behavioural and psychological symptoms of dementia. Since then, antipsychotics have been linked to an increased risk of pneumonia in several studies, but studies among persons with dementia have been scarce. However, almost one third of Finns with Alzheimer's disease use antipsychotic medication.

The association between antipsychotic medication and hospitalisations or deaths due to pneumonia in 2005-2012 was investigated in the nationwide register-based cohort study MEDALZ at the University of Eastern Finland. The study included 60,584 persons with a clinically verified diagnosis of Alzheimer's disease. Persons who had used antipsychotic medication or had pneumonia within one year before the beginning of the follow-up and those who had schizophrenia and bipolar disorder were excluded from the study. The results were compared to a matched cohort of persons without Alzheimer's disease.

The age-adjusted pneumonia incidence during antipsychotic use periods was similar in the AD and non-AD cohort (9.5/100 person-years and 10.2/100 person-years, respectively) while the higher risk of pneumonia among persons with Alzheimer's disease was more evident during non-use (4.8/100 person years in those with Alzheimer's disease and 2.4/100 person-years in those without Alzheimer's disease). Thus, antipsychotic use was associated with a two-fold risk of pneumonia in persons with Alzheimer's disease and even a higher relative risk increase (3.43-fold) among those without Alzheimer's disease.

The findings indicate that antipsychotic use is linked to a higher pneumonia risk regardless of age, applied study design, treatment duration, choice of medication or comorbidities. In addition, the study only included cases of pneumonia leading to hospitalisation or death, which means that the actual risk increase may be even higher. Consequently, the risk-benefit balance should be carefully considered when antipsychotics are prescribed, and the treatment period should be as short as clinically possible.

The study also involved researchers from the University of Helsinki and Karolinska Institutet.


Provided by University of Eastern Finland