Is antidepressant use risk for head injuries in persons with Alzheimer’s disease – matched cohort study

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CONFLICT OF INTEREST DISCLOSURE

I have the following potential conflicts of interest to report

- Lecture fee from MSD
- Lecture fee form Professio
Introduction

• All psychotropic drugs are associated with an increased risk of falls and injurious falls among older persons

• Older persons are at increased risk for traumatic brain injury (TBI) (Fu et al. 2015)
Objective

• To investigate the risk of head and brain injuries associated with antidepressant use among community-dwelling persons with Alzheimer’s disease
MEDALZ cohort

• All persons diagnosed with Alzheimer’s disease (AD) in Finland 2005-2011, based on Finnish health-care registers N=70,718
Study design
matched cohort among AD persons

Matching 1-2 nonusers for each antidepressant initiator at the initiation date, based on:
age, gender, time since AD diagnosis

AD diagnosis

One year washout for antidepressant use

Matching with a nonuser

Matching with a nonuser

Nonuser censored when/ if he/she initiates antidepressant use

Outcome
Exposure and outcomes

- Antidepressant use was classified by ATC-codes
  - Any antidepressant (N06A),
  - SSRIs versus other antidepressants
- Diagnosis according ICD-10
  - Head injuries (S0*)
    - Traumatic brain injuries (TBIs, S06 Intracranial injury) from Hospital Discharge and Causes of Death registers
- Cox proportional hazard models adjusted by age, gender, comorbidities and drug use
Results

• 10,910 new antidepressant users and 21,820 matched nonusers were included
  – 69% women, mean age of antidepressant users and nonusers was 79.5 (due to matching)
  – Median follow-up 249 days (IQR 77-642) for users and 656 days (IQR 316-1155) for nonusers

• 1,373 head injuries were recorded and 677 (49%) of them were TBIs
Results

• Age-adjusted head injury rate per 100 person-years was
  – 2.98 (95% CI 2.49-3.06) during antidepressant use
  – 2.43 (95% CI 2.06-2.35) during nonuse

• Age-adjusted TBI rate per 100 person-years was
  – 1.33 (95% CI 1.13-1.53) during antidepressant use
  – 1.10 (95% CI 1.00-1.20) during nonuse
Hazard ratio on antidepressant use and head and traumatic brain injuries

HR for head injuries is

HR for TBIs

Duration of use and antidepressant classes
Conclusions

• Among persons with Alzheimer’s disease antidepressant use was associated with severe injurious falls, causing head or brain injuries

• Antidepressants seem not to be ”safer choice” for treating neuropsychological symptoms of dementia
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The team working with this article
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Thank you for your attention!

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MEDALZ

MEDICATION USE & ALZHEIMER’S DISEASE

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