Midwest Geriatrics – Palliative Fellowships Consortium

GERIATRICS TWITTER JOURNAL CLUB

#GeriJC

The Risk of Head Injuries Associated with Antipsychotic Use Among Persons with Alzheimer's Disease

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Dr. Sadiah Khan, Psychiatry Resident PGY3 from University of North Dakota leads today's discussion (see video)

T1. What are the most interesting aspects of the paper?

@GeriEducator: That even with higher use of antipsychotics in AD patients compared to general older population, no one had studies the association of this use with risks of TBI. Great presentations by Dr. Khan. #GeriJC

@GeriEducator: Antipsychotic use among community-dwelling persons with AD was associated with increased risk of head injuries and TBIs. One of the strengths of dataset according to authors is that it can be generalized with the exception of previous head-injuries. #GeriJC

@uw_geriatrics: Great to see specific data about use of antipsychotics in dementia and specific TBI risk, as opposed to fall risk in general. Also appreciated comparison of drugs (quetiapine to risperidone).

@BERosensteinMD: A1) Use of specific findings of head injury leading to hospitalization of TBI for outcomes. Also drug-drug comparison with quetiapine and risperidone. #GeriJC

@BERosensteinMD: A1) The result seems the most interesting. Fairly strong correlation between hs-cTnI and disease or mortality risks. Just not sure what I'd do with it. #GeriJC

T2. Were the analytical approaches used in the study appropriate?

@GeriEducator: Mostly Yes. Our stats expert: Propensity scores are messy way to combine effect of covariates into a unique weight for each person, instead of 20 variables-combined into 1 weight. Here made little difference (IPT) from normal way (Adjusted). Did this method add anything? #GeriJC

@GeriEducator: Dr. Klug says: this study excluded people with established or chronic psychotic disorders. Is this a strength or weakness? How does this affect external reliability? #GeriJC

@uw_geriatrics: The authors seem to have done a reasonable job accounting for confounders and creating well0matched comparison groups

@BERosensteinMD: A2) Use of propensity matching was a good way to make a strong data-set, but will introduce errors. The authors effectively described their exclusion criteria (prior head injury, other psychotic disorders, prior AP use) with good reasoning #GeriJC

T3. Does the study add new knowledge to established foundations?

@GeriEducator: @curcumin @NDgeriDocDahl thoughts on use of antipsychotics in AD patients? #GeriJC

@curcumin: Studies suggest 11 to 13% efficacy of antipsychotics in agitated dementia

@uw_geriatrics: We already worry about the increased risk for death and falls with these drugs, and now the potential increased TBI/head injury risk could be added to the list of untoward outcomes

@BERosensteinMD: A3) Providing good estimates of Incidence Rates, can calculate NNH:
For head injury: ~ 282
For TBI: ~560
Quetiapine vs Risperidone: ~221

Seems high (though compare to other common meds) and raises concerns with how commonly these are used #GeriJC

@BERosensteinMD: A3+) Also recommend pubmed.ncbi.nlm.nih.gov/23126170/ for review of person-year based NNT/NNH #GeriJC

T4. What are the weaknesses of the study (design)?

@GeriatricJC: Calling out trainees to answer this question :) @BERisensteinMD @WesGodfrey1 @TarteNikhil @AnnieHara3

@uw_geriatrics: Confounding is always an issue with cohort studies; wonder about the prevalence of neuropathy, vision impairment, orthostatic hypotension, and other conditions that contribute to falls in the group.

@KahliGoBlue: Based on this systemic data, it's difficult to know if the patients receiving antipsychotics are at increased risk for falls due to the behavioral issues prompting the medication use. Perhaps they are falling due to agitation, unsupervised ambulating, etc rather than med AEs

@KahliGoBlue: It would be impossible to make this determination based on database – would need patient/caregiver lvl data

@KahliGoBlue: Similarly – quetiapine is known to have less extrapyramidal effects; perhaps pts receiving quetiapine more likely to have concurrent movement disorder (hence no risperidone). Difficult to completely separate potential confounders in these large database studies!

@BERosensteinMD: A4) Wish to see # of each specific ICD10 diagnoses.

Concussions (s06.0) are likely difficult to recognize in adults with AD as there isn't great concussion eval tools for this group (as opposed to young athletes f.e) Likely study is undercounting TBIs #GeriJC

T5. How would you introduce the findings in your practice?

@GeriEducator: Continued “increased risk should be accounted for especially at the initiation of antipsychotic use, as the risk of head injuries and TBIs was higher at the initiation.” #GeriJC

@GeriEducator: Authors suggest: Nonpharmacological treatments should be prioritized for AD patients, use of antipsychotics should be restricted to most severe symptoms, as stated in the clinical care guidelines and Beer’s list. Thoughts @drcavitale @KahliGoBlue @NDgeriDocDahl @curcumin #GeriJC

@KahliGoBlue: Agreed nonpharm should always be first line. I like the DICE method when approaching behavioral issues https://www.bmj.com/content/350/bmj.h369

@curcumin: British study suggests empirical pain management in agitated dementia patients if no source of problem can be identified

@uw_geriatrics: In light of the limited efficacy of antipsychotics for BPSD, would add this to the list of reasons to hesitate to start the drugs, especially if more benign alternatives haven’t been tried, May be less likely to use quetiapine, as well

@BERosensteinMD: A5) “Here is reason 1,576,890 to avoid starting antipsychotic in older adults with AD” 😊

Srsly, if risk was highest at initiation – all the more reason to avoid *starting* antipsychotics for inpatient delirium #GeriJC