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Proton Pump Inhibitors' Link to Dementia: Patients on Long-Term PPIs Should Consult Your Physician according to American College of Gastroenterology

Bethesda, MD February 16, 2016 – A recently published study of claims data from a German health plan suggests an association between proton pump inhibitor (PPI) use and dementia in the elderly.

"We appreciate and respect the data in the study, but believe more research is needed to understand the impact of PPIs on cognitive function, especially since studies of this type do not control for diet or lifestyle factors, nor do they establish causation," commented Kenneth R. DeVault, MD, FACG, who serves as President of the American College of Gastroenterology.

What Does this Study Mean for Patients on PPIs?

In light of this study, along with other recent studies suggesting potential complications with long-term PPI use, the College urges patients to discuss the use of PPIs and any other medication with their healthcare provider.

"It is important for patients to follow package instructions on over-the-counter PPIs. If a patient has been treated for a long period of time, they should talk to their health care provider before stopping or changing the dose of these medications," added Dr. DeVault. Those with serious esophageal disorders should consult with a gastroenterologist before stopping the medication or changing the dose.

Association, but not Causation

The study authors note that this analysis of administrative data from a health plan in Germany can only provide a statistical association between PPI prescription and occurrence of dementia and does not prove that PPIs cause dementia. They recognize that in order to evaluate the cause-and-effect relationships in the elderly, more research in the form of randomized, prospective clinical trials is needed.

Confounding Factors – What Else Could be Happening in these Patients?

Because the claims data used in the current study lack detailed sociodemographic data, such as diet, lifestyle and education, the researchers could not integrate these important factors into the analysis.

Researchers identified several confounding factors which were significantly associated with increased dementia risk including depression and stroke. Diabetes and taking five or more prescription drugs other than the PPI (known as "polypharmacy") were also associated with significantly elevated dementia risk. In the analysis, polypharmacy elevated the risk for occurrence of dementia by about 16 percent.

In an editorial in JAMA February 15, 2016 that accompanied the German study, Dr. Lewis H. Kuller from the University of Pittsburgh, writes that "...older patients often take many drugs, and the number of drugs taken may be a function of the extent of disease and comorbidities." According to Dr. Kuller's editorial, "determinants of both the disease and the factors related to the use of PPIs may also be related to the risk of dementia." Additionally, other factors such as level of education may confound the results. He notes a very strong inverse association of risk of dementia and education and suggests the possibility that differences in distribution of education for gastrointestinal acid diseases and use of PPIs may account for the association of PPI use and risk of dementia.

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To Learn More

For more information on the treatment of Gastroesophageal Reflux Disease, see the <u>American College of Gastroenterology's 2013 GERD Guideline</u>

Educational resources for patients are available on the ACG web site at http://patients.gi.org/topics/acid-reflux/

JAMA Neurology study link Gomm et al., <u>Association of Proton Pump Inhibotiors with Risk of Dementia: A Pharamacoepidemiological Claims Data Analysis</u>, JAMA Neurology published online February 15, 2016

JAMA Neurology Dr Lewis H. Kuller editorial http://archneur.jamanetwork.com/article.aspx?articleid=2487375

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