

## Aspirin Use in Older Adults Preserves Gray, White Matter

BY AMY ROTHMAN SCHONFELD  
Contributing Writer

ATLANTA — Aspirin, even at low doses, appears to prevent age-related declines in gray and white matter integrity in brain regions that typically show the earliest neuropathological changes associated with Alzheimer's disease, according to Lee Ryan, Ph.D., of the departments of

psychology and neuroscience of the University of Arizona at Tucson, who presented her findings at the annual meeting of the Society for Neuroscience.

These results, generated with diffusion-weighted MRI, provide visual evidence that aspirin has a neuroprotective effect on the normal brain. It supports previous epidemiologic evidence that long-term use of NSAIDs, including aspirin, decreases the risk of developing Alzheimer's disease.

Study participants included 23 cognitively healthy older (over 60 years) adults who were taking aspirin as a health precaution against vascular accidents, hypertension, or mild arthritic symptoms. Most of this group took the equivalent of one baby aspirin a day (81 mg) for up to 15 years. The control group consisted of 25 age-matched subjects not taking any NSAIDs.

Diffusion-weighted (DW) MRI scans were carried out on a 3-T scanner using a radial fast spin-echo method. DW-MRI is



**'Our data support the idea that aspirin, even at low doses, may confer some positive effect on brain function.'**

DR. RYAN

thought to be "exquisitely" sensitive to the presence of inflammation and other neuropathologic processes in white and gray matter, Dr. Ryan said. Four regions of interest were analyzed: the medial temporal lobe and adjacent hippocampal white matter and the posterior cingulate and adjacent white matter in the splenium.

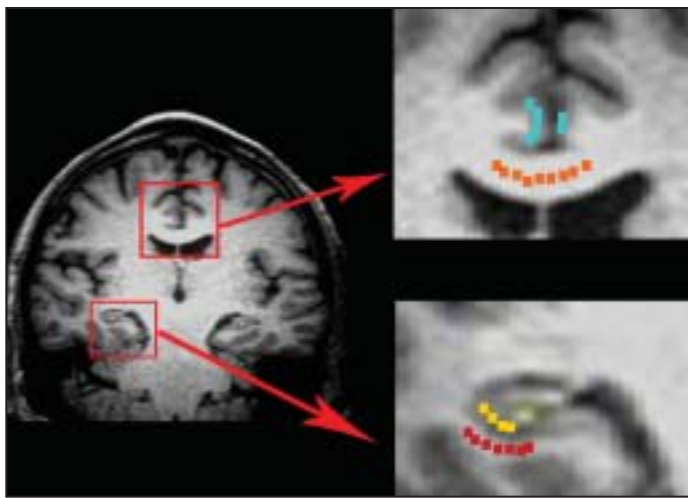
With DW-MRI, lower apparent diffusion coefficient (ADC) values in gray matter and higher fractional anisotropy (FA) values in white matter, compared with controls, are thought to reflect preservation of brain integrity.

Dr. Ryan found that aspirin users had significantly lower hippocampal mean ADC values and higher mean FA values in the adjacent white matter region than did controls. About 25% of both groups were positive for apolipoprotein E (ApoE), and similar protective effects from aspirin were found in individuals regardless of their ApoE status.

ADC values were not significantly different between groups in the posterior cingulate. Aspirin did, however, appear to prevent age-related functional changes in the posterior cingulate and splenium that were seen in those who did not take aspirin.

"We can't say anything about the mechanism of why diffusion is changing, but our data support the idea that aspirin, even at low doses, may confer some positive effect on brain function," Dr. Ryan said. "Diffusion MRI may be a sensitive measure for assessing the influence of anti-inflammatory drugs and interventions that might decrease the risk of Alzheimer's disease."

Colored boxes represent areas assessed using DW-MRI to determine preservation of brain integrity in one subject.



COURTESY DR. LEE RYAN

## Works for his heartburn Works for his budget

Recommend Prilosec OTC for frequent heartburn relief on



- PPI power, affordable relief
- May help your Medicare patients with frequent heartburn save up to \$1200 per year\*



It's possible with Prilosec OTC.

For more information, visit  
[www.prilosecOTC-hcp.com](http://www.prilosecOTC-hcp.com)

\*Seniors must consult their physician to determine if Prilosec OTC is the appropriate therapy for them. Seniors can save if they are on multiple chronic medications based on senior profiles from CMS.

Use as directed for 14 days for treating frequent heartburn (heartburn 2 or more days a week). Not for immediate relief.