

Regular aspirin use may slow progression of early emphysema

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Coated aspirin tablets. Image: Wikimedia Commons.

Regular use of aspirin may help slow the progression of early emphysema, according to new research presented at the 2015 American Thoracic Society International Conference.

"Other than smoking cessation and avoidance, there are no known methods for reducing the risk of developing [emphysema](#)," said researcher Carrie Aaron MD, of the Columbia University Medical Center in New York. "In our large general population sample, we found that regular [aspirin](#) use (three or more days per week) was associated with a slower progression of percent emphysema on computed tomography (CT) scans over 10 years."

The study, which was motivated by findings of pulmonary vascular involvement in emphysema and the importance of [platelet function](#) in other [vascular diseases](#), included 4,471 individuals participating in the Multi-Ethnic Study of Atherosclerosis Lung Study. The percentage of lung volume with emphysematous features (percent emphysema) was assessed on up to 4 CT scans performed over approximately 10 years of follow-up. Spirometry, a measure of expiratory airflow, was performed in 81% of study subjects.

Of the 4,471 study subjects, 21% (921) used

aspirin regularly, 55% were ever-smokers, and 25% of those with spirometry had results indicating airflow obstruction. Regular aspirin use was associated with a significantly slower progression of percent emphysema over ten years, when compared to those who did not use aspirin, even after adjustment for a number of potential confounding factors, including age, sex, race/ethnicity, cigarettes/day, pack-years, and hypertension. Results were consistent in propensity score analyses, performed to minimize effects of confounding by indication. Similar reductions in the rate of progression of percent emphysema were seen among ever-smokers, and greater reductions were observed among individuals with spirometric evidence of airflow obstruction.

"Our study found that persons taking aspirin regularly had a slower progression of emphysema over 10 years compared to those who did not, and that this difference was not explained by many factors that we believe affect progression of emphysema," said Dr. Aaron. "The findings might suggest that regular aspirin use may slow the progression of subclinical emphysema, perhaps through effects on platelet activation or inflammation."

More information: Abstract 69159: Aspirin Use and Longitudinal Progression of Percent Emphysema on CT: The MESA Lung Study

Provided by American Thoracic Society

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