# ACE-inhibitors associated with lower risk for ALS above certain dose over time

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The antihypertensive medications angiotensin-converting enzyme inhibitors (ACEIs) were associated with a 57 percent reduced risk in the chance of developing amyotrophic lateral sclerosis (ALS, also commonly known as Lou Gehrig disease) in patients who were prescribed ACEIs greater than 449.5 cumulative defined daily dose (cDDD) compared with patients who did not use ACEIs, according to a study published online by *JAMA Neurology*.

ALS is a progressive neurodegenerative disease and most patients die within three to five years after symptoms appear. Studies have suggested ACEIs may decrease the risk for developing neurodegenerative diseases.

Researcher Feng-Cheng Lin, M.D., of the Kaohsiung Medical University Hospital, Taiwan, and fellow co-authors used the total population of Taiwanese citizens to study the association between the use of ACEIs and the risk of developing ALS. The study group included 729 patients diagnosed with ALS between January 2002 and December 2008. They were compared with 14,580 control group individuals. About 15 percent of patients with ALS reported ACEI use between two to five years before their ALS diagnosis, while about 18 percent of the control group without ALS reported ACEI use.

The study results indicate that when compared with patients who did not use ACEIs, the risk reduction was 17 percent (adjusted odds ratio of 0.83) for the group prescribed ACEIs lower than 449.5 cDDD and 57

percent (adjusted odds ratio 0.43) for the group prescribed ACEIs greater than 449.5 cDDD.

"The findings in this total population-based case-control study revealed that long-term exposure to ACEIs was inversely associated with the risk for developing ALS. To our knowledge, the present study is the first to screen the association between ACEIs and ALS risk in a population-based study," note the authors.

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