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Use of statins before cardiac arrest may aid survival afterwards

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Patients who have been taking statins are likely to survive longer after a cardiac arrest than those who are not taking them, according to research from Taiwan researchers presented during the Resuscitation Science Symposium at the American Heart Association's Scientific Sessions 2016.

A study analyzing the records of nearly 138,000 patients who suffered out-of-hospital-cardiac arrest in the Taiwan National Health Insurance Research Database found that the prior use of statins was associated with higher rates of survival after cardiac arrest than was non-use. Statin users were significantly more likely than non-users to be still alive a year after the episode. Within the statin group, a subgroup of patients with Type 2 diabetes showed the most improvement in survival rate.

The study also found that with the prior use of statins, patients were:

- About 19 percent more likely to survive to reach a hospital;
- About 47 percent more likely to survive long enough to be discharged from hospital;
- 50 percent more likely to survive for at least a year afterwards; and
- most likely to see a benefit from prior use of statins if they had Type 2 diabetes.

"There is some risk associated with statins, but this study confirms the benefit," said Ping-Hsun Yu, M.D., study senior author and a researcher

at the Taipei Hospital Ministry of Health and Welfare in Taiwan.

For patients who have already experienced a heart attack or ischemic stroke, cholesterol-lowering statins are often prescribed to prevent a second cardiovascular event. However, because these drugs can cause significant side effects (most commonly reported are muscle pain and weakness and increased blood sugar levels), the recommendation to use statins for the prevention of a first cardiac arrest or stroke is not clear.

Yu and his colleagues sorted the records according to whether or not the patients had used statins within 90 days of a cardiac event and researchers accounted for gender, age, underlying conditions, years of hospitalization, post-resuscitation factors, and several other variables.

More than 95 percent of the research population in the analysis were Asian, so researchers say these results might not apply to other ethnic groups or to multi-ethnic populations like that of the United States. The pre-existing database also did not distinguish among different dosages or types of statin. A prospect for further study, said Yu, "may be to divide the statins into different subgroups to see if different potencies or types result in different outcomes."

Provided by American Heart Association