Statins, Aspirin Reduce Heart Attack Severity

According to new research, medications prescribed for prevention of heart attacks such as statins and aspirin can also reduce the severity of heart attacks. The research is published in *PLOS ONE* and findings will be presented at the 27th Great Wall International Congress of Cardiology (GW-ICC).

The study was conducted with 14,790 patients hospitalised for acute coronary syndromes (ACS) in China. Out of these, 7501 patients had a history of cardiovascular disease and a repeat ACS event while others had no history of CVD but entered the study with an ACS event.

The researchers assessed the relationship between prior use of preventive medications such as antiplatelet agents (aspirin), angiotensin converting enzyme inhibitors/angiotensin receptor blockers, statins and betablockers and in-hospital outcomes in patients with ACS. While these cardioprotective medicines are often prescribed to patients at high risk of heart attacks, it was still unknown whether these drugs provide benefit to patients who develop a heart attack despite taking these drugs.

Results were assessed on the basis of severity of disease (type of ACS, systolic blood pressure <90 mmHg, and heart rate >100 beats/minute), arrhythmias, and major adverse cardiovascular events (MACEs, including all deaths, non-fatal myocardial infarction or re-infarction, and non-fatal stroke). A sub-group analysis was also performed to establish whether the drugs had any beneficial effect on patients with prior CVD.

Findings showed that the prior use of these medications was associated with less severity of disease, less arrhythmia, and reduced risk of MACEs during hospitalisation. When compared to patients not taking these drugs, patients taking 1, 2, 3 and 4 medications had a 23%, 33%, 52% and 41% reduced risk of MACEs. Similar trend was observed for severity of disease and occurrence of arrhythmias. Findings were similar in those with or without a history of CVD.

First author Dr Min Li, a researcher in the Department of Epidemiology and Biostatistics, School of Public Health, Peking University Health Science Centre, Beijing, China said, "Our findings suggest that the benefits of these medications may extend beyond preventing ACS. They may also reduce the severity of disease, and in-hospital adverse outcomes, in those who develop an ACS despite taking the drugs. The additional benefits of
the four preventive medications were observed in patients with and without a CVD history, reducing the severity of repeat and first events."

The researchers conclude that patients should continue to take these drugs in the long-term if advised by their doctor and should not lose confidence in them as they do help.

Professor Michel Komajda, a past president of the ESC and course director of the ESC program in China, said: "We know that many heart attack patients stop taking their preventive medications. We need to do more to encourage adherence, and to help patients adopt healthy lifestyle behaviours."

Source: ESC
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