

Statins may prevent blood clots in patients with cardiovascular disease

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Statins may provide potentially life-saving benefits for patients with cardiovascular disease by helping reduce the incidence of blood clots. New research presented at the 75th annual international scientific assembly of the American College of Chest Physicians (ACCP), shows that patients with atherosclerosis receiving statin therapy had a significantly reduced risk of developing venous thromboembolism (VTE)—a collective term for DVT (blood clot) and pulmonary embolism (PE)—than patients not on statin therapy. Furthermore, patients on a higher dose of statins had the least likelihood of developing VTE.

"Research has indicated an association between atherosclerosis and venous [thrombosis](#)," said lead author Danai Khemasuwan, MD, Albert Einstein Medical Center, Philadelphia, PA. "However, in our study, statin therapy demonstrated a protective effect on this group of patients, reducing their overall incidence of developing VTE."

To investigate the association between statin use and incidence of VTE, researchers from Albert Einstein Medical Center reviewed the cases of 593 patients (mean age, 67.8 years) who were admitted to the hospital for myocardial infarction or [ischemic stroke](#). Of the patients, 73 percent (N=433) were receiving statins, and the overall incidence of VTE was 13 percent (N=77).

Results of the analysis showed that patients in the nonstatin group were three times as likely to develop VTE than patients receiving statins, 26.3

percent vs. 8.3 percent, respectively. Even after controlling for factors related to VTE (smoking, history of cancer, and immobilization), statins use was still associated with a low risk of developing VTE. Furthermore, patients receiving high-dose statins (greater than 40 mg/day) showed a lower occurrence of VTE compared with patients receiving standard dose statins, suggesting a dose-related response between statins and VTE.

VTE is a potentially life-threatening condition that occurs in more than 2 million Americans each year. Patients most at risk for VTE are those with cancer, those who have recently had surgery, and patients who have experience acute trauma. Although the current analysis only included patients with atherosclerosis, previous research by Dr. Khemasuwan showed that statins had a similar effect on patients with cancer. The authors caution that it is still too early to speculate the effect that statins may have on other high-risk groups, like surgical patients.

"Venous thromboembolism leads to significant morbidity, mortality, and hospital costs in Americans each year," said Kalpalatha Guntupalli, MD, FCCP, President of the American College of Chest Physicians.

"Although more research is needed, statins may prove effective in helping to reduce the incidence of VTE in specific patient populations."

Source: American College of Chest Physicians

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