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Aspirin Versus Blood Thinners in Atrial Fibrillation Patients with Stroke Risk

Nearly 40 percent of patients treated with aspirin alone despite previous data showing blood thinners more beneficial

Researchers at University of California San Diego School of Medicine and University of California, San Francisco School of Medicine report that more than 1 in 3 atrial fibrillation (AF) patients at intermediate to high risk for stroke are treated with aspirin alone, despite previous data showing this therapy to be inferior to blood thinners.

The findings publish online June 20 in the *[Journal of the American College of Cardiology](#)*.

The study, which examined more than 200,000 AF patients at risk for stroke, found approximately 40 percent were treated with aspirin alone even though previous studies have demonstrated this treatment option is not as beneficial as oral blood thinners, such as warfarin, for reduction of thromboembolism, an obstruction of a blood vessel by a clot that has become dislodged.

The incidence of stroke for AF patients is up to seven times greater than in those without the condition. In AF, electrical impulses in the upper chambers of the heart are chaotic and the atrial walls quiver rather than contract normally in moving blood to the lower chambers. As a result, blood clots may form.

“Stroke prevention is critical to the management of AF patients. However, giving aspirin alone to this population may not be the best treatment therapy because it is either minimally effective or not effective at all and still comes with risks, such as intracranial hemorrhage,” said lead author Jonathan C. Hsu, MD, cardiologist at UC San Diego Health and assistant clinical professor of medicine at UC San Diego School of Medicine. “Our study results show a gap in the appropriate treatment of AF patients at risk for stroke. The findings also highlight the critical need for cardiology specialists to adhere to standardized recommendations regarding the use of oral blood thinners instead of aspirin.”

Health issues related to coronary artery disease (blockages of the heart arteries), including hypertension, dyslipidemia (abnormal amounts of fats in the blood) or a prior heart attack were associated with more frequent prescription of aspirin only; being male, a higher BMI, a prior stroke and congestive heart failure were associated with more frequent prescription of blood thinners.

“The high rate of an aspirin-only prescription for AF patients with coronary artery disease and other stroke risk factors is concerning,” said Hsu. “It appears patients with more risk factors for having a stroke with AF are less likely to get the proper treatment, which is oral blood thinners.”

Hsu and his team also found approximately one-third of AF patients in the study without significant coronary artery disease were prescribed both a blood thinner and aspirin, placing them at higher risk for bleeding without any evidence of benefit.

“The combination of drugs does not necessarily reduce cardiovascular events and stroke in an AF patient population and likely increases the risk of bleeding,” he said.

“Even the most knowledgeable physicians may find themselves in a bind when encountering a patient who needs antiplatelet drugs, such as aspirin, due to coronary disease and blood thinners for atrial fibrillation,” said senior author Gregory Marcus, MD, cardiologist and endowed professor in AF research at UC San Francisco School of Medicine. “While a large proportion of AF patients meeting the guidelines for stroke prevention medications fail to receive them, a lack of sufficient data regarding the clinical benefit among those with strong indications for both antiplatelet drugs and anticoagulants may in part be to blame.”

Both Hsu and Marcus say concerns for bleeding may be the biggest reason for the underutilization of appropriate blood thinners in AF patients. However, the perception that aspirin by itself is sufficient or that the risk of aspirin plus a blood thinner is not worth the benefit may also be driving forces. Both researchers said more studies evaluating cardiovascular outcomes in AF patients prescribed aspirin-only versus oral blood thinners (or in combination) are needed.

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