

New anti-clotting drug more effective than current treatment

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A new and experimental anti-clotting drug, cangrelor, proved better than the commonly used clopidogrel and was significantly more effective at preventing blood clots in a large trial of patients who underwent coronary stent procedures. These data, from the phase III CHAMPION PHOENIX study, were presented at the American College of Cardiology's 62nd Annual Scientific Session and published simultaneously in the *New England Journal of Medicine*.

Researchers report that the new [drug](#), which is administered intravenously, reduced the odds of complications from stenting procedures. Specifically, those who received cangrelor had a lower combined incidence of death, [myocardial infarction](#), ischemia-driven [revascularization](#), or stent thrombosis at 48 hours after [randomization](#).

"We are very excited about the potential for this new medication to reduce complications in patients receiving coronary stents for a wide variety of indications. In addition to being much quicker to take effect and more potent than currently available treatment options, this [intravenous drug](#) is reversible and has a fast offset of action, which could be an advantage if [emergency surgery](#) is needed." said Deepak L. Bhatt, MD, MPH, lead author of the study, director of the Integrated Interventional Cardiovascular Program at Brigham and Women's Hospital (BWH) and chief of cardiology at VA Boston Healthcare System, as well as professor of medicine at Harvard Medical School.

In this randomized double-blind trial, researchers compared the novel IV

drug cangrelor against the oral clopidogrel standard of care in approximately 11,000 patients at 153 centers around the world. The study included a wide selection of patients with different types of heart attack, angina, and other conditions for which people undergo percutaneous [coronary intervention](#) (PCI), as long as they did not have high risk for bleeding or recent exposure to other anti-clotting drugs.

Researchers report significantly better performance by cangrelor compared with clopidogrel:

- A 22 percent reduction in the odds of death, myocardial infarction, ischemia-driven revascularization, or stent thrombosis at 48 hours after randomization: 4.7 percent vs. 5.9 percent
- A 38 percent reduction in the odds of stent thrombosis at 48 hours: 0.8 percent vs. 1.4 percent
- Both treatment arms showed a quite low, statistically comparable incidence in severe bleeding at 48 hours: 0.16 percent vs. 0.11 percent.

Coronary artery stents are used in the majority of patients who undergo percutaneous coronary intervention (PCI), a common medical procedure used to treat arteries in the heart that have become narrowed or blocked due to coronary artery disease, which affects an estimated 14 million Americans. During this procedure, patients are regularly given oral doses of an anti-clotting agent to prevent blood clotting. Both cangrelor and [clopidogrel](#) interfere with the P2Y₁₂ receptor, a platelet-surface protein that helps regulate blood clotting.

"We are encouraged by these compelling results, especially as it relates to the safety data, and believe that this drug has the potential to offer dramatic benefits to our patients" said Robert A. Harrington, M.D., chairman of medicine at Stanford University School of Medicine and co-

chair of the study.

The company plans to file for approval with the Food and Drug Administration using data from CHAMPION PHOENIX and the earlier BRIDGE trial.

Provided by Brigham and Women's Hospital

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