New drugs might give heart patients an edge

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Cangrelor, Inspra and inclacumab seem to improve outcomes in company-funded trials.

(HealthDay)—In the search for better medicines to safely help heart patients, clinical trials testing three new drugs appear to offer some promise.

Two of the drugs, cangrelor and inclacumab, might improve outcomes for patients undergoing cardiac interventions such as angioplasty or stenting, while a third drug, Inspra, seems to lower heart patients' odds for death and heart failure following a heart attack.

All three trials were funded by the respective drugs' makers, and all three were presented Sunday at the annual meeting of the American College of Cardiology (ACC) in San Francisco.

In the first trial, researchers compared an as-yet unapproved blood thinner called cangrelor against the current standard medication, Plavix (clopidogrel), for patients who have recently had a stent implanted in an artery to help improve blood flow.

According to the ACC, more than 600,000 coronary artery stent procedures are conducted in the United States each year, but doctors have long sought safer alternatives to Plavix to help prevent clots. Plavix comes with one big drawback for patients rushed to the hospital with suspected heart attack: It is taken in pill form, and its anti-clotting effects (with accompanying bleeding risk) may not wear off for up to a week.

That means that pre-treating a new patient with Plavix can trigger long delays in needed heart surgery, as the patient waits for the bleeding risk to subside.

Cangrelor may help get around that issue. Even though it is delivered intravenously and begins acting quickly, its anti-clotting effects also fade quickly—within an hour—should any bleeding complications occur, the study authors said.

So, doctors might feel free to give heart patients cangrelor upon admittance to the hospital and then send them immediately for angioplasty—a minimally invasive procedure to reopen clogged vessels—or stenting, if needed.

In the trial, which was funded by cangrelor's maker, New Jersey-based The Medicines Company, researchers compared short-term outcomes for 11,000 patients who underwent stent placement at one of 153 centers around the world.

Some of the patients got cangrelor, while others got Plavix. The study

was also published online Sunday in *The New England Journal of Medicine*.

The research team reported that cangrelor reduced by 22 percent the odds of a patient dying, having a heart attack or having a clot develop in the stented vessel within two days of the procedure, compared to patients who took Plavix. Safety profiles were similar: Severe bleeding at 48 hours after the stenting procedure occurred in 0.16 percent of those on cangrelor and 0.11 percent of those given Plavix.

Commenting at a press conference on Sunday, Dr. Cindy Grines, a cardiologist at Detroit Medical Center, said that if cangrelor receives U.S. Food and Drug Administration approval it could have a "huge impact" for heart patients.

The new study "shows that we do not necessarily have to pre-treat these patients, but once they get to the lab we can give them a very rapidly acting medication with rapid-onset action and rapid offset," she said.

There's one caveat, however: cost. Lead researcher Dr. Deepak Bhatta, chief of cardiology at Brigham and Women's Hospital in Boston, told reporters that cangrelor's price has not yet been set, but it likely will carry a much higher price tag than Plavix. But, he believes the cost of the drug would be offset by savings gained as patients avoid lengthy pre-surgery hospital stays, waiting for the effects of Plavix to wear off.

A second study focused on the drug eplerenone, marketed by Pfizer as Inspra. The drug is currently FDA-approved to help lower high blood pressure and to ward off heart failure after heart attack. In the new Pfizer-funded trial, slightly more than 1,000 patients who had had a heart attack caused by complete blockage of an artery took either Inspra or a placebo in addition to standard treatments.

Patients were followed for an average of a bit more than 10 months. Researchers led by Dr. Gilles Montalescot of the Pitie-Salpetriere Hospital in Paris reported that those taking Inspra were 38 percent less likely than those on a placebo to have outcomes such as death by cardiovascular causes, rehospitalization due to heart failure, irregular heart rhythms or other indicators of heart failure.

Commenting on the results at a news conference, Dr. Miguel Quinones, chair of cardiology at Methodist DeBakey Heart and Vascular Center in Houston, said the study showed a "striking" short-term benefit for patients, but it's unclear if it would be sustained over time. Use of Inspra could be "a game-changer if we could demonstrate three to five years later that we have significantly improved outcomes," he said.

A third and smaller trial, published simultaneously online in the *Journal of the American College of Cardiology*, looked at another still-unapproved drug, the anti-inflammatory agent inclacumab, for use in patients undergoing angioplasty.

The ACC noted that more than 1 million Americans each year undergo angioplasty. But angioplasty can also trigger damage to heart tissues, and it was thought that the new drug might help minimize that risk.

In the study, which involved 322 patients with a common form of heart attack, participants got either various doses of inclacumab or a placebo about an hour before their angioplasty.

The research team assessed changes in levels of troponin I—a protein found in the blood that indicates heart damage—as a means of telling whether the drug was effective or not.

The researchers reported that 24 hours after the procedure, patients who had gotten the highest dose of inclacumab saw their troponin I levels

drop by more than 24 percent compared to those on a placebo—indicating less heart tissue damage. Levels of another marker of heart tissue damage, called CK-MB, fell by more than 17 percent over 24 hours compared to placebo, the team added.

There was also "no bad signal [from the data] in terms of increased rates of bleeding or infection" with the use of inclacumab, study author Dr. Jean Claude Tardif, director of the Research Center at the Montreal Heart Institute, told reporters.

One expert agreed, but said more study is needed. "This looks to be very promising, [and] I hope we get to see this continuing in larger trials," Dr. Neal Kleiman, medical director of the Cardiac Catheterization Laboratories at the Methodist DeBakey Heart and Vascular Center in Houston, said at the press briefing.

Tardif said that such a trial is being planned. The current study was funded by the drug's developer, Hoffman-La Roche Ltd.

Findings from studies that have only been presented at medical meetings, such as the Inspra trial, are typically considered preliminary until published in a peer-reviewed journal.

More information: Find out more about drugs that work to fight heart failure at the American Heart Association.