

Morphine, blood thinner plavix a bad mix for heart attack victims

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Photo: Bureau of Labor Statistics

Painkiller appeared to slow, diminish anti-clotting effect of heart drug.

(HealthDay)—Morphine appears to reduce the effectiveness of the commonly used blood-thinning drug Plavix, which could hamper emergency-room efforts to treat heart attack victims, Austrian researchers report.

The finding could create serious dilemmas in the ER, where doctors have to weigh a heart patient's intense pain against the need to break up and prevent [blood clots](#), said Dr. Deepak Bhatt, executive director of interventional cardiovascular programs at Brigham and Women's Hospital Heart and Vascular Center, in Boston.

"If a patient is having crushing heart pain, you can't just tell them to tough it out, and [morphine](#) is the most commonly used medication in that situation," said Bhatt, who was not involved in the study. "Giving them

morphine is the humane thing to do, but it could also create delays in care."

Doctors will have to be particularly careful if a heart attack patient needs to have a stent implanted, he said. Blood thinners are critical in preventing [blood](#) clots from forming around the stent.

"If that situation is unfolding, it requires a little bit of extra thought on the part of the physician whether they want to give that full slug of morphine or not," Bhatt said.

About half of the 600,000 stent procedures that take place in the United States each year occur as the result of a heart attack, angina or other [acute coronary syndrome](#), he said.

The Austrian researchers focused on 24 healthy people who received either a dose of Plavix with an injection of morphine or a placebo drug.

Morphine delayed the ability of Plavix (clopidogrel) to thin a patient's blood by an average of two hours, the researchers said.

The painkiller also delayed the body's absorption of Plavix and decreased blood levels of the drug by about half. It further seemed to diminish the effectiveness of the medication in breaking up blood clots.

Although the study showed an association between morphine and diminished effectiveness of Plavix, however, it did not prove a cause-and-effect relationship.

"Co-administration of morphine and [Plavix] should likely be avoided, if possible," the researchers said.

Their findings were published online Dec. 4 in the *Journal of the*

American College of Cardiology.

This potential drug interaction is not well known, and Bhatt said news of these findings needs to be distributed as soon as possible.

"The first step would be awareness," he said. "I don't think many doctors are going to ever think of this potential interaction."

Bhatt said he isn't concerned about heart attack victims who are taking Plavix prior to their cardiac episode, because the drug already will be built up in their bloodstream.

The people with the most potential for harm are those not taking Plavix who are in the middle of a [heart attack](#) and need both pain relief and an immediate high level of the blood thinner in their system, he said.

One option to get around this interaction is to get the patient into a catheterization lab as soon as possible to treat the source of the pain rather than using morphine to dull the pain, Bhatt said.

Doctors might also use other blood-thinning drugs, said Dr. Gregg Fonarow, a spokesman for the American Heart Association.

Although Plavix is a widely used therapy, many medications have been shown to interfere with its ability to act, he said.

"More potent antiplatelet agents—prasugrel [Effient] and ticagrelor [Brilinta]—are now available for treatment of patients with acute coronary syndromes and do not have the same type of drug interactions," said Fonarow, who is also a professor of cardiology at the University of California, Los Angeles.

Bhatt, however, said he is concerned that morphine might have the same

effect on these other [blood thinners](#).

"I think there's a reasonable chance the same phenomenon might occur with both those agents," he said. "We need further research."

More information: For more on heart attacks, visit the [U.S. National Heart, Lung, and Blood Institute](#).

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