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Heart attack patients face bleeding risk

Study finds many get overdoses of strong blood-thinning drugs

By LINDSEY TANNER
Associated Press

CHICAGO — Heart attack patients are often given overdoses of powerful blood-thinning drugs in the emergency room, increasing their risk of serious bleeding, a study found.

Of the 30,136 heart attack patients studied who were treated last year at 387 U.S. hospitals, 42% got excessive doses of blood thinners. Overdoses were particularly common in thin people, women, the elderly and those with kidney problems.

Those given too much of two newer blood thinners — low molecular weight heparin and drugs sometimes called "super-aspirin" — had more than a 30% increased chance of major bleeding than those given the recommended dose.

Most of the more than 1 million heart attack patients in the United States each year have the type of heart attack studied — relatively small but still serious, involving plaque-narrowed arteries and clots that reduce blood flow to the heart.

An estimated 117,000 episodes of bleeding occur each year in these patients, including excessive bleeding at catheter sites, from pre-existing stomach ulcers, and in the brain, where it is particularly dangerous, said Duke University researcher Dr. Karen Alexander, lead author of the study in today's *Journal of the American Medical Association*.

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Her study suggests that 15% of these bleeding episodes are from overdoses and may be avoidable.

"Physicians ought to take this into account," said Dr. Steven Nissen, a Cleveland Clinic cardiologist who was not involved with the research. "These drugs are not very forgiving."

The drugs studied were heparin; low molecular weight heparin; and glycoprotein IIb-IIIa blockers, which are sometimes called "super-aspirin" because of their blood-thinning potency. Injected or given intravenously, they are very effective at helping prevent clots and more heart damage.

Alexander said determining the correct dose can be tricky in an emergency, when quick treatment is essential.

Correct doses are computed according to age, gender, weight and kidney function, and sometimes require a calculator. But when faced with a patient just brought in on a stretcher, doctors frequently ask how much the person weighs, or they "eyeball it," Alexander said.

"Hopefully, this will increase awareness of how important it is to take that extra minute to complete these more careful calculations," she said.

Study participants who got overdoses had slightly longer hospital stays and higher death rates than those who received the recommended doses, but Alexander said that might be because they were sicker. She said more research was needed.

The study underscores how tricky these drugs can be.

"Even giving the right drug at the right dose increases the risk of bleeding," and giving too low a dose can increase patients' risk for clot-related damage, said Dr. Robert Bonow, a former American Heart Association president.

A separate *JAMA* study about heart trouble found that having a sibling with heart disease might be a bigger predictor of a person's own risks than a parent's health history.

Family history, genes and lifestyle factors are known contributors to heart disease, and it may be that siblings are more similar to each other than to their parents when it comes to lifestyle, said Bonow, who was not involved with either study. ■