

Common drug for irregular heartbeat tied to worse outcomes

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But study group taking digoxin may have been sicker overall, cardiologist notes.

(HealthDay)—Patients who take the heart rhythm drug digoxin may face a nearly 30 percent greater risk of death than patients not taking the drug, a review of prior research suggests.

The analysis also suggests that [digoxin](#) may increase the risk for death by 60 to 70 percent among [patients](#) with both the [heart rhythm disorder](#) known as atrial fibrillation and kidney failure.

The findings stem from an in-depth look at 19 studies involving nearly a half million atrial fibrillation patients, many of whom were prescribed digoxin (brand names: Digox, Lanoxin) as a way to rein in irregular heartbeats.

"Between 15 to 20 percent of atrial fibrillation patients use this drug to control this disorder of the heart, which is very prevalent among older

age groups," said study lead author Dr. Waqas Qureshi, a clinical and research fellow of cardiology at Wake Forest School of Medicine in Winston-Salem, N.C. Currently, the American Heart Association and the American College of Cardiology include digoxin as a first-line therapy for the condition, he said.

"We found a very strong signal that a significant portion of digoxin users faced an increased risk for death, versus those who took other medications," Qureshi added. "Even though this is just a pooling of data from other studies which needs to be confirmed by clinical trials, the message for now is that other first-line medications—such as beta-blockers and calcium channel blockers—should be tried first."

Qureshi and his colleagues are scheduled to present their findings March 15 at the annual meeting of the American College of Cardiology, in San Diego. Research presented at meetings is usually considered preliminary until published in a peer-reviewed medical journal.

Atrial fibrillation is a quivering or irregular heartbeat that can lead to [blood clots](#), stroke and [heart failure](#), according to the American Heart Association. It estimates that 2.7 million Americans have atrial fibrillation.

Qureshi said digoxin is not an unfamiliar drug. The foxglove flower extract at its source was harnessed thousands of years ago as a beautifying agent hailed for its ability to dilate pupils. Its usefulness for heart disease sufferers was identified in the 17th century.

Today, experts support digoxin as one of the first drugs of choice for sicker patients with multiple health conditions, Qureshi said.

The studies included in the new review were conducted between 1960 and 2014. Of about 458,000 atrial fibrillation patients in the pooled

analysis, nearly 112,000 were taking digoxin.

Those taking digoxin were found to face a 21 percent greater risk of death from a heart-related issue, and a 27 percent greater risk of death from any cause, compared to patients not taking the drug.

Although digoxin was also linked to a higher risk for death among patients diagnosed with both atrial fibrillation and heart failure, that association appeared somewhat weaker, the researchers said.

Qureshi stressed that it's unclear exactly what drives the observed risk posed by digoxin. But he suggested the drug might increase the chances of blood clots.

With other treatments available, why would patients take digoxin in the first place? "It's definitely very cheap, which can be a factor in some places outside the U.S.," said Qureshi. "But here, beta-blockers are now available as generics for just \$4, so that's not really an issue for American consumers."

Qureshi noted that digoxin has faded in popularity in light of research touting the ability of beta-blockers and calcium channel blockers to decrease patient deaths. Digoxin has never demonstrated an ability to lower mortality, though it has been linked to a lower overall risk for hospitalization, he said.

Despite digoxin's diminishing profile, Dr. Gregg Fonarow, a professor of cardiology at the University of California, Los Angeles, cautioned against ringing its death knell based solely on the current analysis.

He noted that the type of patient most often prescribed digoxin is one who doesn't tolerate other options well and likely has atrial fibrillation compounded by heart failure. That tendency, he said, may have skewed

the review's findings, given the relatively sicker nature of the digoxin patient pool.

Also, the study doesn't prove that digoxin caused the deaths of patients with atrial fibrillation, Fonarow said. Only an association was seen between the two.

"These findings are merely hypothesis-generating," he said, adding there's a need for randomized clinical trials to evaluate the safety and effectiveness of digoxin for patients with [atrial fibrillation](#).

The study received no industry funding, Qureshi said.

More information: There's more on atrial fibrillation at the [U.S. National Heart, Lung, and Blood Institute](#).

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