



## Cardiologists Spot Best Treatment for a Deadly Duo

Controlling heart rate is key when heart failure, irregular heartbeat combine, study finds

## By Ed Edelson *HealthDay Reporter*

WEDNESDAY, June 18 (HealthDay News) -- When added to heart failure, the irregular heartbeat called atrial fibrillation can form a deadly combination.

Now, an international study shows that a less onerous strategy called "rate control" may be the best first option for keeping patients healthy under these circumstances.

"Our results show that one strategy was not superior to the other in terms of major endpoints such as cardiovascular mortality," explained the study's lead author, Dr. Denis Roy, chair of medicine at the University of Montreal, Canada. That indicates that rate control should be the primary approach, Roy said.

"If patients on rate control do not feel well, then the physician can switch to the other approach," he said.

The findings are published in the June 19 issue of the New England Journal of Medicine.

An estimated 4.8 million Americans have heart failure, which involves a progressive loss of the heart's ability to pump blood. About 20 percent of these patients also have atrial fibrillation, an abnormal function of the upper chambers of the heart, Roy said.

Cardiologists have long been divided in their choice of treatments for the combination, Roy said. Some prefer to control the heart's rhythm, first by delivering a shock, then by prescribing powerful antiarrythmic drugs, notably amiodarone. Others prefer to use less potent drugs such as beta blockers to reduce the heart's rate, which can reach 140 to 150 beats per minute.

The trial, conducted at centers in seven countries, including the United States and Canada, enrolled almost 1,400 people affected by both atrial fibrillation and heart failure. Half had treatment aimed at controlling the heart's rhythm control, the other got therapies focused on managing the heart's rate.

Over an average follow-up period of a little more than three years, the death rate from cardiovascular causes was near equal between the two groups -- 27 percent in the rhythm-control group and 25 percent in the rate-control group. The overall death rate was 32 percent in the rhythm-control group and 33 percent in the rate-control group. The rates of other adverse outcomes, such as stroke and worsening heart failure, were also almost identical in the two groups.

So, all things being equal, rate control should be the primary approach, Roy concluded, since antiarrythmic drugs are tougher on patients. "We know they can be successful, but they have many side effects, particularly in patients with heart failure," Roy said.

Making heart rate control first-line treatment in such cases "would reduce the number of hospitalizations, reduce the number of procedures, and the major outcomes would be the same," he said.

But the concept of rhythm control need not be abandoned, stressed Dr. Michael E. Cain, dean of the University at Buffalo School of Medical and Biomedical Sciences, and co-author of an accompanying

editorial.

"One of the points we tried to make [in the editorial] is that we don't know if the concept is wrong, or we just don't have the optimal therapy to attain nature's rhythm," Cain said. "We can't prove it, because the existing therapies are not good enough to ensure that if you put someone on antiarrythmic therapy, it will be a normal rhythm and will not have severe side effects."

So, until that question is cleared up, "let's use a therapy [such as rate control] that works better and has less side effects, and see which works better," Cain said.

Another paper in the same issue of the journal announced discouraging news in the effort to develop a better antiarrythmic drug. An earlier report on the first trials for the drug, called dronedarone, noted that preliminary results did look promising. But the new study -- led by physicians at the University of Copenhagen, Denmark, and including more than 600 patients -- was ended early after researchers reported increased mortality in the group getting dronedarone.

Still, the trial was too small to give definitive results, the researchers added. A conclusive result could come from a large controlled study now in progress, they said.

The Danish-led study also included only people with heart failure, Cain noted. "Other data that haven't been published yet will be showing efficacy when the drug is used in people with atrial fibrillation who *don't* have heart failure," he said.

## More information

There's more on heart failure at the **American Heart Association**.

SOURCES: Denis Roy, M.D., chair of medicine, University of Montreal, Quebec, Canada; Michael E. Cain, M.D., dean, University at Buffalo School of Medical and Biomedical Sciences, Buffalo, N.Y.; June 19, 2008, *New England Journal of Medicine* 

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