Digoxin Still Has a Place in Heart Failure Treatment

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VANCOUVER, B.C. — The latest Cochrane systematic review of digoxin for treatment of heart failure patients in sinus rhythm paints a picture of a more than 200-year-old drug that's still clinically useful, although it has no effect on mortality, William B. Hood Jr., M.D., said at a meeting sponsored by the International Academy of Cardiology.

"It's probably not first-line therapy. It's not very powerful. But it's available for patients who are not fully responsive to other agents that have become first-line treatments—the ACE inhibitors, β -blockers,



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DR. HOOD

spironolactone, and the angiotensin receptor blockers," added Dr. Hood, lead author of the recent Cochrane review and a cardiologist at the University of Washington, Seattle.

The metaanalysis was restricted to randomized, double-blind, placebo-controlled trials involving adults followed for at least 7 weeks. Thirteen trials totaling nearly 7,900 patients qualified, including the largest of all digoxin studies: the 6,800-patient, 3-year Digitalis Investigation Group (DIG) trial (N. Engl. J. Med. 1997;336:525-33).

Long-Term LVAD Survival Is Lower In Older Patients

Washington — Receipt of a left ventricular assist device at an older age may adversely affect long-term, but not short-term, survival with the device, Evgenij V. Potapov, M.D., reported at the annual conference of the American Society for Artificial Internal Organs.

In a review of 403 patients who have received LVADs at the German Heart Institute, Berlin, since 1987, the 116 patients who were older than 60 years were 2.5 times more likely than younger patients to have a negative long-term outcome, such as no heart transplantation, an inability to wean off the LVAD within 6 months, support for less than 6 months in patients with permanent implants, and failure to continue support for more than 6 months in other patients, said Dr. Potapov, a cardiothoracic surgeon at the institute.

No risk factor significantly predicted a negative long-term outcome in patients older than age 60.

"Postcardiotomy support in older patients should be performed in really selective cases," he said.

—Jeff Evans

Why even bother doing a metaanalysis when one trial is so dominant? Dr. Hood explained that the smaller trials are helpful in that each consistently reached the same conclusion as DIG regarding the effect of digoxin on mortality—namely, there is none. The drug didn't lessen mortality, nor did it significantly worsen it.

In the DIG trial, however, there was a nonsignificant trend for fewer deaths from heart failure in digoxin-treated patients and a hint that the inotrope may have caused more arrhythmia deaths, although this wasn't a prespecified study end point.

Digoxin's effect on deterioration in clinical status was much more clearcut in the metaanalysis. The odds ratio for that end point was 0.31, meaning patients randomized to digoxin were 69% less likely to show significant clinical deterioration than were control patients.

Digoxin patients were 32% less likely to experience the end point of hospitalization for worsening heart failure.

Two studies included in the metaanalysis showed that patients on an ACE inhibitor plus digoxin did better than those on an ACE inhibitor plus placebo. However, the effects of digoxin in patients on other agents that have become first-line therapies in heart failure more recently than the ACE inhibitors, including β -blockers and aldosterone antagonists, haven't been systematically studied. For ethical reasons it's highly unlikely such trials will ever be done, Dr. Hood said.

