Statins Cut Deaths in Nonischemic ICD Users

BY COLIN NELSON
Contributing Writer

BOSTON — Statin use was associated with startling reductions in mortality and in sudden death among patients with nonischemic dilated cardiomyopathy, according to a new subanalysis from a multicenter trial of implantable cardioverter defibrillators.

In addition to a 77% decrease in overall mortality (5/110 vs. 64/348), statin use was associated with an 84% reduction in sudden death (1 vs. 18).

Statins were also associated with a 22% reduction in appropriate shocks in patients with implantable cardioverter defibrillators (ICDs).

Statins appear to have significant effects beyond lipid lowering, according to the researchers. Among patients with coronary artery disease, the lipid-lowering drugs are associated with a reduction in arrhythmic events, appropriate ICD shocks, and mortality. Statins can also improve the clinical status of patients with nonischemic heart failure.

To determine whether statins may be protective against sudden death in patients with nonischemic heart failure, Dr. Jeffrey J. Goldberger of Northwestern University, Chicago, and his colleagues compared the mortality in the 110 patients who took statins in the multicenter DEFINITE trial with the 348 patients who did not.

The patients in both groups were similar at baseline in most clinically important respects, according to Dr. Alaa Shalaby of the Pittsburgh VA Healthcare System who presented the findings during an oral presentation at the annual meeting of the Heart Rhythm Society.

The DEFINITE trial, which was published in 2004, randomized 458 patients with nonischemic dilated cardiomyopathy (DCM) and a left ventricular ejection fraction of less than 36% to receive standard medical therapy alone or medical therapy plus an ICD (N. Engl. J. Med. 2004; 350:2151-8).

The addition of an ICD provided no additional protection against death, the primary end point. But among those patients who received ICDs there was a significant (80%) reduction in sudden deaths caused by arrhythmia, the secondary end point.

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In the new subanalysis, the ability of ICDs to protect against sudden death remained significant even after adjusting for statin use, Dr. Goldberger noted in an interview.

Moreover, among those patients who received ICDs, the use of statin therapy conferred an additional protection against sudden death.

But Dr. Shalaby cautioned that it is important to put these findings into perspective. "We recognize that these are post hoc analyses."

At the time they released their 2004 findings, the DEFINITE investigators noted that the trial was not powered for subgroup analysis and that such analyses needed to be undertaken with extreme care.

Statin use was not a prespecified analysis. Of several prespecified subanalyses that they undertook in their 2004 article, none of the differences between subgroups was deemed significant.

Statin use, one among many uncontrolled variables in the DEFINITE trial, was not randomized. The patients' cholesterol levels were not uniformly available, and the duration of statin therapy and statin dose are unknown.

Dr. Goldberger acknowledged these limitations.

"Patients with hypercholesterolemia and dilated cardiomyopathy should be treated with statins. They have an indication," Dr. Goldberger said in an interview. "For those without hypercholesterolemia, statin use needs to be tested in prospective trials."

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None of the authors of the current subanalysis disclosed financial relationships with makers of statins. ■

Pages 42a—42b