DALLAS — Intensive treatment with atorvastatin in patients with stable coronary heart disease led to a significant reduction in the incidence of major coronary events. The findings were based on a large-scale, ongoing randomized clinical trial sponsored by Pfizer, Inc.

The study was sponsored by Pfizer, which markets Lipitor. Dr. Waters has been a consultant to and a speaker for Pfizer, and he has also received research grants from Pfizer.

The impact of treatment on heart failure was assessed by the number of hospitalizations for heart failure during the study. A total of 164 patients (3.3%) on the 10-mg dose were hospitalized for heart failure, compared with 128 patients (2.4%) in the 80-mg group, a 26% relative reduction that was statistically significant, Dr. Waters said.

The study excluded those patients with New York Heart Association class IIIb and class IV heart failure, as well as patients who had a left ventricular ejection fraction at baseline of less than 30%.

Among those who enrolled, 8% of the patients who had heart failure at baseline, but this subgroup accounted for 38% of the hospital admissions for heart failure. Among those who entered the trial without heart failure, the incidence of heart failure hospitalization was 1.9%.

In the subgroup with preexisting heart failure, the impact of high-dose atorvastatin was even greater. The hospitalization rate was 17.3% among those who were on 10 mg, compared with 10.6% among those on 80 mg, a very large absolute reduction of 6.7%, and a relative risk reduction of 41% that was statistically significant, Dr. Waters said.

The study included a multidose analysis, the reduction in low-density lipoprotein (LDL) cholesterol was a significant modifier of risk after adjustment for other traditional and nontraditional risk factors. For every 1% drop in the serum level of LDL cholesterol, the risk of hospitalization for heart failure fell by 0.6%.

There was no indication that the drop in heart failure hospitalizations was mediated by an effect of high-dose atorvastatin on the incidence of myocardial infarctions and other ischemic events. During the three months prior to their first hospitalization for heart failure, only 15% of the patients had an acute coronary event. That meant that 85% of the hospitalizations for heart failure were not triggered by a coronary event, Dr. Waters noted.

Several other beneficial effects of statins might explain an effect on heart failure, including improved endothelial function, inhibited production of oxidative cytoxicities, and direct antifibrotic, antihypertrophic, or antioxidant effects.