Intensive Statin Therapy More Effective in Elderly Patients

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Orlando, Fla. — Intensive statin treatment produced a bigger benefit in elderly patients at high risk for coronary artery disease than in younger patients, based on an analysis from the PROVE IT-TIMI 22 study.

Intensive statin treatment that lowered serum levels of LDL cholesterol to less than 70 mg/dl also was safe in elderly patients, leading to no increased rate of liver enzyme or muscle abnormalities, Kausik K. Ray, M.D., reported at the annual meeting of the American College of Cardiology.

These findings show that the updated guidelines of the National Cholesterol Education Program, which suggested lowering LDL cholesterol levels to less than 70 mg/dl in patients with a very high risk of coronary disease, are applicable to patients who are aged at least 70 years, said Dr. Ray, a cardiologist at Brigham and Women’s Hospital in Boston.

To assess the role of age in intensive LDL-cholesterol reduction, Dr. Ray and his associates used data collected in the Pravastatin or Atorvastatin Evaluation and Infection Therapy-Thrombolysis in Myocardial Infarction 22 (PROVE IT-TIMI 22) trial (N. Engl. J. Med. 2004;350:1495-504). This study randomized more than 4,000 patients with acute coronary syndrome to treatment with either an intensive (80 mg of atorvastatin daily) or moderate (40 mg of pravastatin daily) lipid-lowering regimen, and showed that patients whose LDL cholesterol levels dropped below 70 mg/dl had better outcomes during 2 years of follow-up compared with patients who had higher levels of LDL cholesterol.

The new analysis focused on the 3,784 patients (91.5% of the total study cohort) who were free from death, MI, or unstable angina 30 days after they started treatment. This group included 634 patients aged at least 70 years, and 3,150 patients who were younger than age 70.

During the remaining 23 months of follow-up, patients aged 70 or older who were in the intensive-treatment group had a 20% reduced risk of death, MI, or unstable angina compared with similarly aged patients in the moderate-treatment group.

The benefit from aggressive treatment was virtually identical in younger patients. Those younger than 70 years in the aggressive arm had a 21% drop in events compared with similarly aged patients in the moderate-treatment group.

Another way to assess the outcomes was to focus on how patients fared if their LDL cholesterol level dropped below 70 mg/dl after the first 30 days on treatment, Dr. Ray said. There were 2,470 patients whose cholesterol level dropped below 70 mg/dl after the first 30 days of treatment and had a 13.5% rate of death, MI, or unstable angina during the following 23 months. In contrast, older patients whose LDL-cholesterol level was 70 mg/dl or higher after the first 30 days had a 21.3% event rate, a statistically significant difference, reported Dr. Ray.

In contrast, among younger patients, those whose LDL cholesterol level dropped below 70 mg/dl had a subsequent 8.1% event rate, compared with a 10.4% rate among younger patients who failed to achieve this LDL cholesterol target. The difference between these groups was also statistically significant, but the absolute difference was only 2.3%.

Safety measures were similar in the older and younger patients. The incidence of abnormal liver function tests, an apparatus amnionfetase level at three times or more above the upper limit of normal, occurred in 2% of all patients regardless of age. The incidence of elecments in creatinine kinase, a marker of muscle abnormalities, was 6% in younger patients and 3% in older patients.