

Drops in Pressure, Lipids Cut Risk Independently

BY MITCHEL L. ZOLER
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NEW YORK — Both blood pressure control and lipid lowering independently cut the rate of cardiovascular disease events in a post hoc analysis of data collected in a study with about 10,000 patients.

In patients with stable coronary artery disease, lowering serum levels of LDL cholesterol to less than 74 mg/dL, and maintaining systolic BP at less than 140 mm Hg, led to the lowest rate of major cardiovascular disease events during a median follow-up of almost 5 years, Dr. John B. Kostis reported at the annual meeting of the American Society of Hypertension.

The analysis also showed no interaction between blood pressure control and lipid lowering. Lipid lowering had a similar effect on the rate of cardiovascular events in patients with either controlled or uncontrolled blood pressure levels, and controlled pressure was effective at reducing events at all LDL levels, said Dr. Kostis, chairman of medicine at Robert Wood Johnson Medical School, Piscataway, N.J.

“Intensive management of both LDL cholesterol and blood pressure is important in patients with stable coro-

nary heart disease,” he said. The analysis did not find differences in the effects of reduced blood pressure on the basis of the classes of antihypertensive drugs used.

The data came from the Treating to New Targets (TNT) study, which compared the effect of two different dosages of atorvastatin, 10 mg or 80 mg per day, on the incidence of cardiovascular events in patients with stable coronary artery disease. The main result, reported last year, was that treatment with the higher dosage was linked with a 2.2% absolute reduction in events (N. Engl. J. Med. 2005;352:1425-35). The TNT study was sponsored by Pfizer, which markets atorvastatin (Lipitor). Dr. Kostis is a consultant to, a speaker for, and a grant recipient from Pfizer.

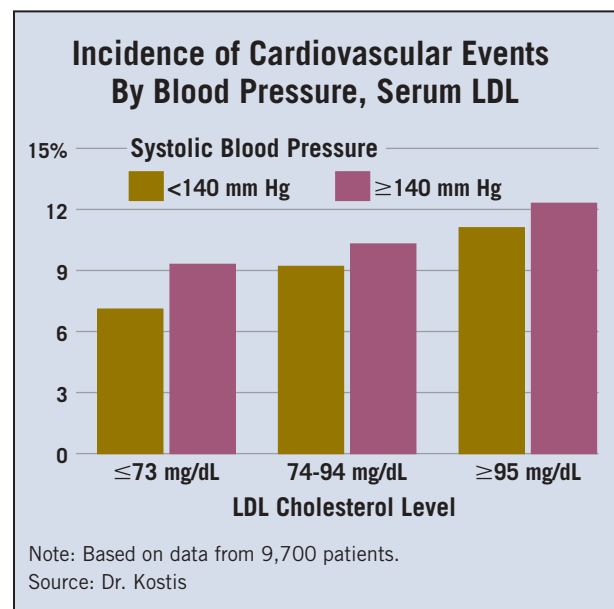
The post hoc analysis examined the interaction of blood pressure and serum levels of LDL cholesterol. The analysis focused on the blood pressure and lipid levels measured after the first 3 months of treatment. Full data were available for about 9,700 patients.

During almost 5 years of follow-up, the lowest rate of major cardiovascular events was 7.1%, in patients who had a serum LDL cholesterol level of less than 74 mg/dL—the lowest tertile—and a systolic pressure of less



Lipid lowering had a similar effect on the cardiovascular event rate in either controlled or uncontrolled blood pressure.

DR. KOSTIS



than 140 mm Hg. Events counted included fatal and nonfatal strokes, and fatal and nonfatal coronary disease events. The highest rate was 12.3%, in patients in the highest tertile for serum LDL cholesterol—more than 94 mg/dL—and in patients with a systolic pressure of at least 140 mm Hg. (See chart.)

Manipulation Cut Systolic Pressure 12% In Patients With Suspected Misalignment

BY MITCHEL L. ZOLER
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NEW YORK — Spinal manipulation reduced the systolic pressure in selected patients with hypertension in a controlled pilot study with 50 patients.

Realignment of the atlas vertebra seemed to lower the systolic blood pressure of 25 patients during 8 weeks of follow-up without drug therapy. A control group of 25 patients who underwent a mock realignment had no reduction in their systolic pressure, Dr. George L. Bakris and his associates reported in a poster at the annual meeting of the American Society of Hypertension.

“We’re now writing a proposal to submit to the National Center for Complementary and Alternative Medicine to get funding for a larger study to look at this treatment in greater detail,” said Dr. Bakris, professor of preventive medicine and director of the Hypertension/Clinical Research Center at Rush University in Chicago.

It is unclear why atlas realignment has this effect. Anatomical abnormalities of the cervical spine at the level of the atlas vertebra are associated with relative ischemia of the brainstem circulation and increased blood pressure. Impaired blood supply to the brain may affect the sympathetic nervous system and sympathetic

tone, Dr. Bakris said in an interview.

The pilot study enrolled patients with stage 1 hypertension who had no neck pain and evidence of atlas misalignment on preliminary screening. The patients were either withdrawn from their antihypertensive medications or had been treatment naive at entry to the study.

The atlas realignment procedure used was the standard treatment of the National Upper Cervical Chiropractic Association. Briefly, the patient’s head is placed on a curved, mastoid support, which acts as a fulcrum. The clinician pushes on a “corner” of the atlas’s transverse process, using nudges to cause the atlas vertebra to recoil into a normal alignment. All of the realignments were done by chiropractor Marshall Dickholtz Sr., who practices in Chicago.



Atlas realignment, performed here by chiropractor Marshall Dickholtz Sr., significantly reduced systolic BP in a pilot study.

The control patients underwent a sham procedure so that correct alignment wasn’t achieved.

At baseline, average systolic BP was 150 mm Hg in the control patients and 147 mm Hg in the patients who then underwent a realignment procedure.

The average systolic pressure of the actively treated patients began to show a significant drop relative to the control patients at 3 weeks after treatment, and their systolic pressure steadily declined during the next 5 weeks. By 8 weeks, the average systolic pressure in the treated group was less than 130 mm Hg.

By contrast, the control group had no drop in pressure throughout follow-up. At 8 weeks after their sham procedure, the average systolic pressure was unchanged, at about 148 mm Hg.

It is not clear how many patients are potentially eligible for this treatment. Dr. Bakris guessed that in the United States perhaps as many as 5 million people with hypertension have an atlas misalignment.

On the basis of what is currently known about this misalignment, an ideal candidate for realignment would have hypertension with no neck pain, no family history of hypertension, and no other obvious cause of his or her high blood pressure. And when lying flat, one of the patient’s legs would be about 0.2-1.0 cm shorter than the other.

Blood Pressure Goals Unmet in Diabetics

BARCELONA — Only two in five Americans with type 2 diabetes and cardiovascular disease—and just one in five in European countries—meet current blood pressure goals, Benjamin A. Steinberg reported at the joint meeting of the European Society of Cardiology and the World Heart Federation.

These findings from a huge contemporary international database underscore the urgent need for physicians to do much better at identifying and controlling high blood pressure in this very-high-risk population, Mr. Steinberg said in an interview.

During a fellowship, Mr. Steinberg, a medical student at Johns Hopkins University, Baltimore, analyzed the CardioMonitor database for 1998-2004. CardioMonitor is an annual survey of outpatients with cardiovascular disease that relies on medical records provided by primary care physicians and cardiologists.

For the years 1998-2004 excluding 2002, when the survey wasn’t conducted, the CardioMonitor database included nearly 155,000 patients with cardiovascular disease in the United States and five European nations. A total of 23,139 of them also had type 2 diabetes.

The prevalence of diabetes among cardiovascular patients rose during the years of the study, in some countries quite markedly. For example, the reported prevalence of type 2 diabetes among patients with cardiovascular disease doubled in France and the United Kingdom between 1998 and 2004, while in the United States, it climbed from 15% to 21%. The prevalence in 2004 was greatest in Germany, at 25%.

The Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure VII goal of a systolic BP below 130 mm Hg was achieved by only 41% of American diabetic cardiovascular patients. European rates were far lower: 24% in the United Kingdom, 19% in Germany, 18% in Spain, 16% in France, and 12% in Italy, Mr. Steinberg said.

—Bruce Jancin