

Six-Month Results

Hypertension from page 1

therapy with multiple antihypertensive agents, the inherent limited efficacy of the drugs currently available, and compliance issues that commonly arise with multidrug therapy for a silent disease, he added.

Renal denervation therapy could be widely applicable. Roughly 15%-20% of hypertensive patients have resistant hypertension as defined by blood pressures remaining above target in spite of optimal doses of at least three antihypertensive agents, one of which should be a diuretic. This was the population enrolled in Symplicity HTN-2; in fact, nearly two-thirds of participants were on at least five antihypertensive drugs.

Future trials will evaluate renal denervation in milder forms of essential hypertension, as well as in other dis-

the adventitia of the renal artery. This results in decreased whole-body noradrenaline spillover, increased renal blood flow, and reduced plasma renin activity, the investigators noted in a published report released online simultaneously with Dr. Elser's presentation (Lancet Nov. 17, 2010 [doi:10.1016/S0140-6736(10)62039-9]).

No serious procedure-related complications occurred. Renal function remained unchanged during follow-up, even in patients who had mild to moderate renal impairment at baseline.

Blood pressure reductions of the magnitude achieved in Symplicity HTN-2 could, in theory, be expected to result in roughly 60% decreases in stroke and MI rates in these sorts of very-high-risk patients, according to Dr. Elser and others.



This approach could sidestep the current lifelong, multidrug treatment for resistant hypertension.

DR. ESLER



This study has the potential to 'revolutionize the way we deal with treatment-resistant hypertension.'

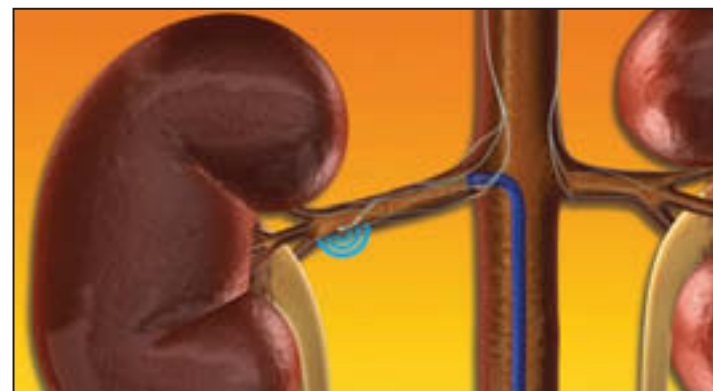
DR. OPARIL

eases involving activation of renal sympathetic outflow, including heart failure, cirrhosis with ascites, and chronic kidney disease.

The denervation procedure entails using standard endovascular technique to pass a proprietary radiofrequency catheter via femoral access into the renal artery lumen. The operator then delivers four to six bursts of low-power radiofrequency energy along the length of each renal artery to ablate the renal nerves, located in

"In the current era, drugs blocking the renin-angiotensin system have moved to the fore and the sympathetic nervous system has kind of been swept into the shadows," he noted.

A U.S. clinical trial of the device therapy will begin early next year. Meanwhile, the therapy is being introduced into clinical practice in Australia and Europe. Dr. Elser said he would not be surprised to see a turf battle between interventional cardiologists and interven-



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Denervation of the sympathetic renal nerves is accomplished by delivering several bursts of low-power radiofrequency energy.

tional radiologists over who performs the procedure.

Discussant Dr. Suzanne Oparil said, "This is an extremely important study. It has a number of great strengths and the potential to really revolutionize the way we deal with treatment-resistant hypertension."

The absence of adverse events, given the fact that 24 centers were involved in the trial, is a remarkable finding that speaks to the procedure's safety and ease, observed Dr. Oparil, professor of medicine, physiology, and biophysics and director of the vascular biology and hypertension program at the University of Alabama, Birmingham. However, several limitations of the study were of concern, particularly the fact that only 17% of patients were being treated with aldosterone antagonists, which could be an indication that the patient population was not truly drug resistant.

Dr. Elser disclosed that he has received consulting fees and travel expenses from Ardiان, which sponsored the Symplicity HTN-2 trial. Dr. Oparil is a consultant to Amylin, Boehringer-Ingelheim, Daiichi Sankyo, Forest Laboratories, Merck, NicOx, Novartis, and VIVUS. ■

Barbershop Intervention Improves Hypertension Control

BY MARY ANN MOON

FROM THE ARCHIVES OF
INTERNAL MEDICINE

An outreach program in which barbers served as health educators – monitoring their black male clients' hypertension and referring them for medical treatment when necessary – improved the rate of blood pressure control by about 9% over 10 months.

The intervention, which was tested in 17 black-owned barbershops in a single Texas county, motivated about half the hypertensive patrons at participating barbershops to see a physician, and reduced their systolic blood pressure by a mean of 2.5 mm Hg, said Dr. Ronald G. Victor of the University of Texas Southwestern Medical Center, Dallas, and his associates.

"If the intervention could be implemented in the approximately 18,000 black-owned barbershops in the United States to reduce blood pressure by 2.5 mm Hg in the approximately 50% of hypertensive U.S. black men who patronize these barbershops (2.2 million persons), we project that about 800 fewer myocardial infarctions, 550 fewer strokes, and 900 fewer

deaths would occur in the first year alone, saving about \$98 million in [coronary heart disease] care and \$13 million in stroke care (but offset by \$6 million in additional non-CHD costs contributed by persons who would otherwise have died)," the investigators noted.

Black-owned barbershops "are rapidly gaining traction as potential community partners for health promotion programs targeting hypertension as well as diabetes, prostate cancer, and other diseases that disproportionately affect black men," the researchers said.

Such barbershops "are a cultural institution that draws a large and loyal male clientele and provides an open forum for discussion of numerous topics, including health, with influential peers."

Dr. Victor and his colleagues offered free blood pressure screening to patrons of 17 barbershops representing four geographic sectors with sizeable black populations in the Barber-Assisted Reduction in Blood Pressure in Ethnic Residents (BARBER-1). Nine barbershops with 695 patrons who were found to have hypertension then were randomly allocated

to the intervention, and eight barbershops with 602 patrons who had hypertension were randomly allocated to a comparison group.

Most of the barbershop clients were middle income.

The comparison group was not strictly a control group; patrons there underwent two BP screenings at baseline and received standard written explanations and recommendations for physician follow-up, because failing to advise them would have been unethical. The comparison barbershops also made available American Heart Association pamphlets entitled "High Blood Pressure in African Americans."

For the intervention, barbers continually offered all male clients blood pressure checks along with their haircuts. They displayed large posters depicting authentic stories of other male hypertensive patrons of the same shop modeling treatment-seeking behavior, using the model's own words to tell the story. Barbers and other male patrons also discussed the issue conversationally.

The barbers were trained, equipped, and paid to conduct BP testing and interpret the re-

sults, with the main focus on encouraging clients who had positive results to consult a physician. They referred clients who had no physician to a nursing staff that then referred them to local physicians or safety-net clinics. Barbers also gave patrons found to be hypertensive a wallet-sized card for the physician to sign, documenting an office visit concerning hypertension.

The barbers were paid \$3 for every recorded blood pressure they took, \$10 for every referral they made to the nursing staff, and \$50 for every BP card that clients returned to them with physicians' signatures. Patrons received free haircuts (a \$12 value) for every BP card they returned with a physician's signature.

Overall, nearly half of the patrons who were screened had high blood pressure; 78% of them were already aware that they were hypertensive, and 69% said they were taking treatment for HT, yet only 38% had their blood pressure under control.

Barbers were able to measure blood pressure in three of every four patrons who had hypertension, and each hypertensive client averaged eight blood pressure checks during the 10-

month study. "The barbers motivated 50% of their patrons with elevated BP readings to visit a physician," the researchers said.

The rate of blood pressure control – the number of men who achieved blood pressure control during BARBER-1 – improved by about 10% in the comparison group, but improved by an additional and significant 8% in the intervention group. That represents a nearly 20% improvement over the baseline rate of blood pressure control.

The intervention group also showed an absolute decrease of 2.5 mm Hg in systolic blood pressure compared with the control group, a secondary outcome of borderline significance, the investigators said (Arch. Intern. Med. 2010 Oct. 25 [doi:10.1001/archinternmed.2010.390]).

The National Heart, Lung, and Blood Institute, Donald W. Reynolds Foundation, the Aetna Foundation Regional Health Disparity Program, Pfizer, Biovail, Cedars-Sinai Heart Institute, the Lincy Foundation, and the Robert Wood Johnson Foundation supported the trial. Dr. Victor reported ties to Pfizer and Biovail. ■