

► Renal Denervation: A Leap Forward in HTN Tx

Intractable hypertension poses a danger to millions of people for whom drug treatment and lifestyle changes have failed to correct blood pressure. This uncontrolled form of the condition is key to hypertension's role as the leading cause of preventable heart attack, stroke, and death. But now specialists are finally delivering a new solution for this group of patients—renal denervation (RDN).

“Medicine has developed improved treatments for other chronic diseases such as diabetes in recent years, but we've achieved no new modes of intervention for hypertension for a very long time,” said Kintur Sanghvi, MD, FACC, FSCA, Virtua chief of interventional cardiology and director of cardiovascular innovation. “But now, with endovascular RDN, we are delivering a solution that is safe and provides long-term, life-saving correction for uncontrolled hypertension.”

Reducing Nerve Activity, BP, and CV Risk

To treat the condition, the Virtua cardiac team places patients under moderate sedation and use femoral access to advance a catheter to the renal arteries. Depending on the patient's anatomy, they deliver radiofrequency or ultrasound energy through the catheter to disrupt the sympathetic nerves that surround the artery. The arteries are not harmed during or as a result of the procedure.

Patients typically return home the same day and will see initial benefit from this gentle toning down of neural function after about two months. RDN, which the FDA approved last year, has reduced systolic blood pressure by a mean of approximately 10 mmHg, for patients both on and off medications at primary end-point follow-ups in multiple trials. At three years, this mean reduction is 18 mmHg, which equates to a 20% to 30% lessening of risk of major cardiovascular events.

Safe & Permanent—At Last an Option

RDN proves a solution as well for patients who are intolerant of hypertension medications or for whom a complicated conventional treatment regimen of multiple drugs and alterations in health habits prove impracticable. In addition, worldwide evidence with tens of thousands of patients shows no decline in renal function as a result of RDN. Furthermore, depending on how each patient responds, RDN will permit many to gradually decrease their dosage, or number, of antihypertensive medications, with the option to titrate down drug therapy under medical management.

“RDN is a complementary, always-on, option that finally provides an answer for reducing risk in this significant population of patients,” said Dr. Sanghvi, who has one of the largest experiences in the provision of RDN in the country, having participated as a primary investigator in clinical trials and published multiple articles on the procedure. He and his team in Virtua's hypertension management program (see page 2) delivered the first post-approval use of RDN in New Jersey. They continue to submit post-approval data on RDN, a treatment that Dr. Sanghvi believes “could also help overcome barriers in access and choices for patients from communities of color, who disproportionately bear the burden of uncontrolled high blood pressure.”

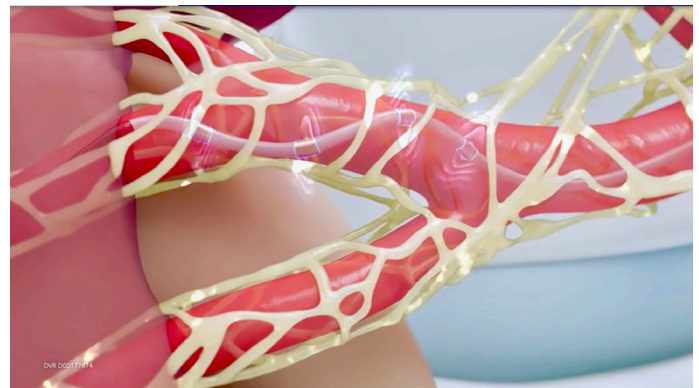


Image courtesy Symplicity Spyra™ by Medtronic

Renal denervation brings the function of renal sympathetic nerves to a more restive level, resulting in significant and sustained blood pressure reductions. The image shows a catheter applying energy through renal artery walls to permanently quiet surrounding nerves.

To refer a patient to a Virtua renal denervation specialist,
call 856-309-5869.

Toward a More-Focused Approach to Hypertension Treatment

Roughly half of the U.S. population is thought to have some degree of hypertension, a condition that generates tens of billions of dollars in prescription costs. But with high blood pressure so often left undetected, or inadequately treated, the disease can lead not just to cardiovascular events, but to problems such as renal failure, cognitive decline, and premature mortality.

Health care providers could bring this epidemic in plainer sight if they could better measure and track this vital sign. Nighttime blood pressures most accurately gauge the condition as a predictor of cardiovascular death, but bedtime and wake-up readings are often the most that practitioners can hope for from patients.

“With half of patients becoming nonadherent within one year of initiating drug therapy—and with no major new advances in hypertension treatment in decades—it’s too easy for us to become complacent or frustrated with our ability to address this condition,” said Rhondalyn McLean, MD, Virtua AVP for cardiovascular clinical operations. “But this is a deadly serious issue, with U.S. control rates for hypertension declining over the last several years.”

With the case for a more-focused approach to hypertension management clear, Virtua continues to build toward a comprehensive hypertension center of excellence, through which PCPs can refer to hypertension experts in cardiology or nephrology. The team is now providing medication guidance and reconciliation, as well as adjunctive consultation on factors such as diet and lifestyle. The service offers imaging and other secondary workup for a variety of potential

contributory conditions or risk factors such as renal artery stenosis, sleep apnea, and carotid disease.

The rigorous program reports back to patients and referrers based on an evaluation using current guideline-directed therapy and evidence-based blood pressure targets. It features disease education, medication titration as needed, and remote home blood pressure monitoring. Importantly, it now includes an invasive hypertension management component, with the advent of the renal denervation procedure (*RDN*, see page 1).

Available for patients with uncontrolled hypertension, RDN will not replace medications for most patients undergoing the procedure. However, many patients in this group will appreciate a decreased need for hypertension drugs and experience more effective therapy overall.

“With lifestyle changes often difficult to maintain as well for these high-risk patients, a one-time treatment such as renal denervation may prove a significant boon for the hypertension field,” said Dr. McLean.

