

## TCT@ACC-i2: Invasive and Interventional Cardiology

### PREVALENCE AND CHARACTERISTICS OF PATIENTS ELIGIBLE FOR CATHETER-BASED RENAL ARTERIAL DENERVATION IN AN ACADEMIC CARDIOLOGY CLINIC

Oral Contributions  
West, Room 2009  
Sunday, March 10, 2013, 8:45 a.m.-8:55 a.m.

---

Session Title: Endovascular Intervention and Renal Denervation  
Abstract Category: 41. TCT@ACC-i2: Carotid, Neurovascular, and Endovascular Intervention  
Presentation Number: 2905-7

---

Authors: *Salim Hayek, Mahmoud Abdou, Benjamin Demoss, Juan Ortega-Legaspi, Emir Veledar, Anjan Deka, Sandeep Krishnan, Kobina Wilmot, MD, Aalok Patel, Vikas Kumar, Maya Pudi, Chandan Devireddy, Emory University Hospital, Atlanta, GA, USA*

**Background:** The largest published study of renal denervation (RDN), SYMPLICITY HTN-2, demonstrated significant blood pressure (BP) reduction in eligible patients with resistant hypertension. Given the strict inclusion and exclusion criteria of SYMPLICITY HTN-2, we sought to determine its generalizability when applied to a community-based hypertensive population and to compare the clinical characteristics of eligible compared with non-eligible hypertensive patients.

**Methods:** We identified patients who would have been eligible for RDN under the SYMPLICITY HTN-2 study criteria from consecutive hypertensive outpatients presenting to an academic cardiology clinic over 6 months. SYMPLICITY HTN-2 included patients 18 to 80 years old with systolic BP of at least 160 mmHg receiving at least 3 anti-hypertensive medications at maximal doses of which one was a diuretic. Patients with chronic kidney disease with creatinine clearance of less than 45 mL/min, renal arterial stenosis, or noncompliance were excluded. Demographic and clinical characteristics of patients were compared between those who did and did not meet criteria for RDN.

**Results:** We identified 1792 hypertensive outpatients; they were predominantly male (54.9%) and white (53.2%), had a mean age of 66.6±12.6 years, and a BMI of 30.1±10.8 kg/m<sup>2</sup>. Only 17 of these patients (0.9%) were eligible for RDN. Among these patients, 13 (76.5%) were female and 15 (88.2%) were black, with a mean age of 68.2±11.3 and BMI of 32.2±6.8. Their most common co-morbidities were coronary artery disease (35.3%), congestive heart failure (47.1%), and diabetes (52.9%). There were no statistically significant differences in associated co-morbidities between hypertensive patients eligible for RDN and those who were not.

**Conclusions:** Patients meeting criteria for RDN based on published studies represent an exceedingly small proportion of the total hypertensive population. Further studies are necessary to determine if BP reduction after RDN can be generalized to a broader range of hypertensive patients than those included in previous trials. Published studies of RDN may not be relevant to most hypertensive patients encountered in routine clinical practice.