



## Vascular Medicine

### SIGNIFICANT, LONG-TERM REDUCTIONS IN BLOOD PRESSURE AND PULSE PRESSURE ARE OBSERVED IN BOTH OLDER AND YOUNGER PATIENTS WITH RESISTANT HYPERTENSION FOLLOWING TREATMENT WITH THE SYMPPLICITY™ RENAL DENERVATION SYSTEM

Moderated Poster Contributions

Poster Sessions, Expo North

Sunday, March 10, 2013, 9:45 a.m.-10:30 a.m.

Session Title: Vascular Medicine: Endovascular Therapy II

Abstract Category: 34. Vascular Medicine: Endovascular Therapy

Presentation Number: 1209M-157

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**Background:** Resistant hypertension (RH) is associated with increased risk for cardiovascular events and mortality. The growing prevalence of hypertension and the aging population highlights the need for effective blood pressure (BP) lowering therapies for patients of all ages.

**Methods:** Data from patients (pts) enrolled on Symplicity HTN-1 or Symplicity HTN-2 who completed 24 months follow-up after catheter renal denervation (RDN) were pooled and analyzed according to age  $\geq 65$  yrs and  $< 65$  yrs. All pts had RH defined as a systolic BP (SBP)  $\geq 160$  mmHg while on  $\geq 3$  antihypertensive medications including a diuretic. The change from baseline BP and pulse pressure (PP) was assessed for each subset at each time point.

**Results:** There were 169 pts  $< 65$  yrs old (mean 51.7) and 73 pts  $\geq 65$  yrs old (mean 70.2). Fewer pts  $< 65$  yrs were female (38.7% vs 45.2%), diabetic (29.6% vs 41.1%) or had a history of CAD (4.7% vs 12.3%). Older pts had a lower baseline diastolic BP and higher PP. Both BP and PP were significantly reduced after RDN. Renal function was unchanged from baseline.

**Conclusions:** RDN results in similar, significant BP and PP reductions for patients of all ages with no attenuation of effect through 24 months. Changes in PP were primarily related to reductions in SBP which may be important for preservation of myocardial perfusion pressure in older patients.

	Patients $< 65$ yrs		Patients $\geq 65$ yrs	
	BP (mmHg)	PP (mmHg)	BP (mmHg)	PP (mmHg)
Baseline	178 $\pm$ 17/ 102 $\pm$ 14 (167)	76 $\pm$ 14 (167)	179 $\pm$ 19/ 88 $\pm$ 12 (72)	90 $\pm$ 18 (72)
1 Month	-19 $\pm$ 19/ -9 $\pm$ 12 (159)	-10 $\pm$ 14 (159)	-19 $\pm$ 23/ -8 $\pm$ 11 (72)	-12 $\pm$ 17 (72)
6 Months	-24 $\pm$ 23/ -11 $\pm$ 13 (158)	-13 $\pm$ 16 (158)	-24 $\pm$ 24/ -8 $\pm$ 12 (70)	-16 $\pm$ 20 (70)
12 Months	-26 $\pm$ 23/ -13 $\pm$ 14 (147)	-13 $\pm$ 16 (147)	-27 $\pm$ 27/ -10 $\pm$ 11 (65)	-17 $\pm$ 20 (65)
24 Months	-31 $\pm$ 23/ -14 $\pm$ 15 (106)	-16 $\pm$ 14 (106)	-28 $\pm$ 23/ -11 $\pm$ 12 (43)	-16 $\pm$ 18 (43)

mean $\pm$ SD (n) p $<$ 0.01 for all changes from baseline