

vention was significantly higher in patients with CTD ( $P=.01$ ). One, 5 and 10 year survival rates were 95.8%, 91.6%, and 86.1% respectively.

**Conclusions:** Young patients who undergo open TAAA repair have favorable short and long-term outcomes. However, a significant proportion require further aortic intervention and imaging surveillance is advised, especially in those with CTD.

**Author Disclosures:** T. C. Bower: Nothing to disclose; A. A. Duncan: Nothing to disclose; P. Gloviczki: Nothing to disclose; M. Kalra: Nothing to disclose; G. Oderich: Nothing to disclose; N. R. Reed: Nothing to disclose.

### PVSS13.

#### Anatomic Characteristics of Aortic Transection: Centerline Analysis to Facilitate Emergent Repair

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**Objectives:** Traumatic transection of the thoracic aorta is being treated increasingly with the use of aortic stent grafting. Unfortunately, most stent grafts are designed for treating aortic aneurysmal disease instead of traumatic injury. Further refinements in stent graft technology depend on a thorough anatomic understanding of the transection process.

**Methods:** All patients with computed tomography evidence of blunt aortic injury between 2003 and 2011 were queried. Their initial scans were imported into the Intuition (Terarecon, Inc) viewing program, and off-line centerline reconstruction was performed. Standard demographic data was collected in addition to anatomic characteristics, including aortic diameters and relation of the injury to the arch vessels.

**Results:** 52 patients were identified. Only 2 patients had evidence of injury proximal to the left subclavian artery. The average length from the left subclavian artery to the proximal site of injury was 16.2 mm (range 2-31 mm). Most patients (40) had more than 15 mm of landing zone beyond the left subclavian artery. The range of proximal diameters ranged from 19-32 mm, with an average aortic diameter of 23.7 mm. Five patients had aortic diameters smaller than 21 mm, and five patients had aortic diameters greater than 26 mm. The average length of injured aortic segment was 27 mm.

**Conclusions:** In this contemporary series from a large trauma center, 98% of patients are anatomically able to be treated with a stent graft that does not require coverage of the left common carotid artery. Furthermore, 80% of patients were anatomically able to be treated without left subclavian artery coverage. Most patients have an aortic diameter that

falls between 21 and 26 mm in diameter as well as a short segment of injured artery. Centers interested in emergently treating aortic transections are able to do so while maintaining a limited stock of stent grafts that can be used to treat the majority of the population.

**Author Disclosures:** B. L. Brewer: Nothing to disclose; L. P. Brewster: Nothing to disclose; M. A. Corriere: Nothing to disclose; T. F. Dodson: Nothing to disclose; Y. Duwayri: Nothing to disclose; L. S. Johnson: Nothing to disclose; R. R. Rajani: Nothing to disclose; J. G. Reeves: Nothing to disclose; J. J. Ricotta: Nothing to disclose; R. K. Veeraswamy: Nothing to disclose.

### PVSS14.

#### Gender Differences in Aortic Aneurysm Presentation, Repair, and Mortality in the VSGNE

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**Objectives:** Prior studies examining gender differences in AAA repair suggest there may be differences in presentation, suitability for EVAR, and outcomes between men and women.

**Methods:** We used the Vascular Study Group of New England database to identify all patients undergoing EVAR or open AAA repair (OAR). We analyzed demographics, comorbidities, and procedural, and perioperative data. Results were compared using Fisher's exact test.

**Results:** 4,193 patients underwent AAA repair (78% male, 54% EVAR). Women were less likely to undergo EVAR for intact aneurysms (50% vs. 60% of,  $P<.001$ ) but not for ruptured aneurysms (27% vs. 21%,  $P=.25$ ). Women were older (74 years vs. 72 years for intact,  $P<.001$ ; 77.5 years vs. 73 years for rupture,  $P<.001$ ) with smaller aortic diameters (56mm vs. 59mm for elective,  $P<.001$ ; 71mm vs. 78mm for rupture,  $P=.005$ ). Women had higher 30-day mortality after OAR for both intact (4% vs. 2%,  $P=.05$ ) and rupture (48% vs. 33%,  $P=.03$ ) repairs. However, 30-day mortality after EVAR was similar for both intact (1% in men vs. 1% in women,  $P=.58$ ) and rupture (29% in men vs. 26% in women,  $P=1.00$ ) repairs.

**Conclusions:** Women are undergoing EVAR at a higher rate than previously reported, being treated at older ages and smaller diameters, and rupture at smaller diameters than men. Thirty-day mortality is worse in women after OAR but comparable after EVAR.

**Author Disclosures:** J. E. Adams: Nothing to disclose; R. P. Bensley: Nothing to disclose; E. Chaikof: Nothing to disclose; A. D. Hamdan: Nothing to disclose; R. C. Lo: Nothing to disclose; M. L. Schermerhorn: Endologix, Consulting fees or other remuneration (payment) Medtronic, Consulting fees or other remuneration (pay-