the number of TAAA cases performed nationally and a decline in the rate of ruptured TAAA ($P < .001$).

**Conclusions:** A decline in the number of TAAA cases was observed over the study period; however, the costs associated with treatment increased significantly. The overall in-hospital mortality is decreasing for TAAA. A sharp rise in the use of endovascular techniques for the management of TAAA was seen over the study period. The overall mortality of TEVAR was significantly lower compared with OAR.

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**Upper Extremity Steal Syndrome Is Associated With Atherosclerotic Burden and Access Configuration**

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**Objectives:** Clinically significant steal syndrome (SS) occurs in a subset of dialysis patients with arteriovenous (AV) access. Factors associated with SS are poorly understood. Severe symptoms require access revision or sacrifice, potentially jeopardizing access options. Our objective was to re-examine our dialysis access experience to identify factors associated with SS.

**Methods:** We reviewed all adult patients undergoing their first upper extremity access, AV fistula (AVF) or AV graft (AVG), between January 2008 and July 2011 at a single center. Medical, demographic, and access characteristics were collected from our electronic medical record and a local dialysis center’s database. Patients who required correction of SS were compared with the larger access cohort. Statistical analysis included the Fisher exact test and $\chi^2$ for noncontinuous variables and the unpaired $t$ test for continuous variables.

**Results:** Of 303 patients, 15 required correction for SS (eight of 232 AVF and seven of 71 AVG). Eight were ligated; two were initially banded, then ligated; and five underwent distal revascularization with interval ligation. Coronary artery disease was more prevalent in SS patients (66.7% vs 25%; $P = .001$); the same was found with peripheral arterial disease (40% vs 13.8%; $P = .02$). Further, more patients with SS were on Plavix for cardiovascular reasons ($P = .03$). All AVGs with flow ($P < .001$) and c AVF/AVG using brachial artery inflow. No cases of SS arose from radial/ulnar inflow ($P = .03$). All AVGs with SS had a straight configuration; no looped AVG developed steal ($P = .02$). Other patient characteristics such as age, sex, race, hypertension, diabetes mellitus, congestive heart failure, cerebrovascular accident, cause of end-stage renal disease, and other medication history were not different between groups.

**Conclusions:** Clinically significant SS is associated with disease in coronary and peripheral arterial beds. In addition, the use of brachial artery inflow and straight AVG configuration are associated with SS. Patients with these characteristics need additional vigilance for steal-associated symptoms.

**Author Disclosures:** E. A. Kudlaty: None; D. E. Kendrick: None; M. T. Allemang: None; V. S. Kashyap: None; V. L. Wong: None.

**Descending Thoracic Aortic Surgery Is Common After Type A Aortic Dissection Repair: Perspectives From Thomson Reuters MarketScan Database**

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**Objectives:** The current standard of surgical repair for type A aortic dissection (TAAD) does not guarantee freedom from subsequent aortic operations; therefore, consideration of simultaneous treatment beyond the ascending aorta is warranted. This study was conducted to report the national rates and the timing of proximal and distal reoperations after operative repair of TAAD based on available patient-level admissions data.

**Methods:** Admissions data for patients with TAAD were identified and obtained from Thomson Reuters MarketScan Database using International Classification of Diseases, 9th Revision, Clinical Modification codes. From 2003 to 2011, patients aged $\geq$ 18 years with thoracic or thoracoabdominal diagnoses who underwent surgical repair or aortic resection, or both, were identified. From this population, 2041 patients with $\geq$12 months of follow-up data who were discharged alive after index admissions for TAAD were described. Primary outcome measures were rates of reoperation for any aortic location. Patient demographics, comorbidities at admission, and interval to reoperation were also obtained from the database.

**Results:** A total of 2363 patients with TAAD who underwent repair were identified. The mortality rate was 7.8% for the initial repair. Of 3018 patients who were available for follow-up, 2041 patients had $\geq$1 year of follow-up. The mean age was 58.0 ± 13.2 years, and 70% were male. Eighty-seven patients (4.26%) required 95 reoperations (33.1% of reoperations) for the ascending aorta, and 162 (7.94%) patients required 192 (66.9%) reoperations for the descending thoracic aorta. The mean intervals were 436.7 ± 593.9 days for ascending aortic surgery and 324.0 ± 431.2 days for the descending thoracic aorta after the initial admission for TAAD surgical procedures.

**Conclusions:** TAAD is a highly morbid and mortal diagnosis. The initial surgery is high-risk, but our data demonstrate that future surgery is common. In fact, the majority of the repeat surgical procedures are for descending thoracic aortic complications. We believe that more aggressive aortic stabilization may be warranted.

**Author Disclosures:** R. Milner: None; S. Ham: None; M. Hur: None.

**Endovascular Versus Open Repair of Thoracoabdominal Aneurysms: Long-Term Results**

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**Objectives:** We reviewed all adult patients undergoing their first thoracic or thoracoabdominal aortic aneurysmal repair (TAAA) after 2003 at a single center. Medical, demographic, and access characteristics were collected from our electronic medical record and a local dialysis center’s database. Patients who required correction of SS were compared with the larger access cohort. Statistical analysis included the Fisher exact test and $\chi^2$ for noncontinuous variables and the unpaired $t$ test for continuous variables.

**Results:** Of 303 patients, 15 required correction for SS (eight of 232 AVF and seven of 71 AVG). Eight were ligated; two were initially banded, then ligated; and five underwent distal revascularization with interval ligation. Coronary artery disease was more prevalent in SS patients (66.7% vs 25%; $P = .001$); the same was found with peripheral arterial disease (40% vs 13.8%; $P = .02$). Further, more patients with SS were on Plavix for cardiovascular reasons ($P = .03$). All AVGs with flow ($P < .001$) and c AVF/AVG using brachial artery inflow. No cases of SS arose from radial/ulnar inflow ($P = .03$). All AVGs with SS had a straight configuration; no looped AVG developed steal ($P = .02$). Other patient characteristics such as age, sex, race, hypertension, diabetes mellitus, congestive heart failure, cerebrovascular accident, cause of end-stage renal disease, and other medication history were not different between groups.

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**Abstracts**

**Fig 1. Observed survival.**

**Fig 2. Survival for propensity-matched cohorts.**