Objectives: Endovascular aortic aneurysm repair (EVAR) in patients with narrow aortic bifurcations can be complicated by iliac limb compression and aortic disruption. The Global Registry for Endovascular Aortic Treatment (GREAT) actively tracks Gore (W.L. Gore, Flagstaff, Ariz) commercial aortic endovascular device performance and associated outcomes. We hypothesized that a narrow aortic bifurcation may predispose to the development of iliofemoral collaterals increasing the risk of type II endoleak.

Methods: Between August 2010 and December 2014, 1935 patients (84.8% male; mean age, 73.7 ± 8.1 years) from 83 global sites were enrolled in this registry. Patients with diameter ≤16 mm at the distal aortic bifurcation (AoB) were included in our study. Primary endpoint was serious adverse events (SAEs). Patient demographics, treatment indication, case planning, operative details, and clinical outcome were analyzed. Only serious endoleaks requiring a secondary intervention are reported in the registry.

Results: There were 666 patients with reported AoB measurements. Of those, 95 patients (14.3%) had an AoB ≤16 mm and were treated by EVAR, using the Gore Excluder bifurcated stent graft. All stent grafts were successfully implanted, with no conversions to open repair. One patient did require femoro-femoral bypass for limb thrombosis. At a median follow-up of 352 days, SAEs had been reported in 18 patients (23.6%). There was one death (1.0%) 4 months after EVAR, which was not attributable to the device. Iliac limb occlusion or stenosis occurred in two patients (2.1%). Endoleak was reported in six patients (6.3%). Of those, five were type I endoleaks (5.8%), and one was type II (1.0%). In the 571 patients with AoB >16 mm, there were two type II endoleaks (0.4%), one type Ib (0.2%), one type Ia (0.2%), and one type III (0.2%).

Conclusions: EVAR in patients with narrow distal aortic diameters is safe and effective using the Gore Excluder bifurcated stent graft, even when the AoB measures ≤16 mm. Incidence of significant type II endoleak may be increased in patients with narrow AoB. These data may suggest that more aggressive adjuncts during initial EVAR with a narrow AoB are necessary to prevent future secondary interventions for type II endoleaks.

Author Disclosures: C. S. Briggs: None; R. Milner: Consulting Fee; My Role; Consultant for W. L. Gore.

Simultaneous Carotid Endarterectomy and Coronary Artery Bypass Grafting Is Associated With Similar Clinical Outcomes With Lower Length of Stay and Hospital Charges

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Objectives: The correct timing of carotid endarterectomy (CEA) and coronary artery bypass graft (CABG) in patients with concurrent coronary and carotid artery disease is controversial. We evaluated short-term outcomes of simultaneous against same admission staged CEA and CABG in the National Inpatient Sample database.

Methods: An analysis of approximately 8 million hospital admissions per year from 2008 to 2012 was obtained from the Healthcare Cost and Utilization Project National Inpatient Sample database. Using International Classification of Diseases, Ninth Revision, Clinical Modification codes, we selected patients who underwent CEA and CABG in the same admission and excluded those who had other cardiac or carotid interventions. We divided them into two groups—simultaneous (SmCC) or staged (StCC)—based on whether the procedures were done on the same day or on different days. Statistical analysis was done with Statistical Package for Social Sciences (SPSS) software version 21 (IBM Corp, Armonk, NY).

Results: After weighted adjustment, a total of 6174 (66.9%) underwent SmCC and 2021 (32.8%) underwent StCC from 2008 to 2012. The average age of SmCC and StCC patients was 68.7 ± 9.0 and 67.9 ± 8.9 (P = .04). Gender composition of the groups was similar (P = .462). Mean Elixhauser Comorbidity Index for the SmCC was 3.3 ± 1.7 and for the StCC was 3.22 ± 1.7 (P = .22). There were no significant differences between the two groups in terms of postoperative stroke rate (2.7% vs 2.3%; odds ratio [OR], 0.85; 95% confidence interval [CI], 0.45–1.61; P = .62); perioperative myocardial infarction (25.3% vs 28.9%; OR, 1.20; 95% CI, 0.97–1.45; P = .09); and in-hospital mortality (3.1% vs 2.9%; OR, 0.93; 95% CI, 0.53–1.64; P = .80). We grouped outcomes on the basis of stroke, myocardial infarction, and in-hospital death into a single composite endpoint but the difference did not reach statistical significance (28.4% vs 32.4%; OR, 1.20; 95% CI, 0.98–1.48; P = .08).

Both median length of stay and hospital charge were higher (P = .00) for the staged group (Table).

Conclusions: Simultaneous CEA and CABG can be performed safely with lower length of stay and hospital charges.