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IP135. Perioperative outcomes of carotid endarterectomy and stenting in octogenarians

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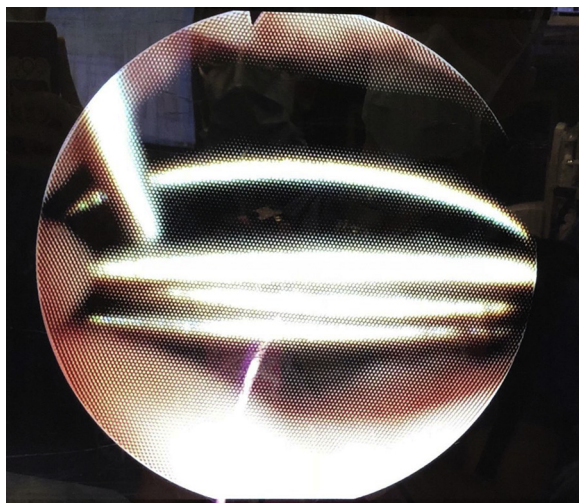


Fig 1. Cystoscopy showing several vascular embolization coils extruding into the bladder.



Fig 2. Very large right internal iliac artery aneurysm.

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IP135.

Perioperative Outcomes of Carotid Endarterectomy and Stenting in Octogenarians

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Objectives: Carotid interventions, either carotid endarterectomy (CEA) or carotid artery stenting (CAS), in octogenarians remains controversial. Our goal was to compare the perioperative outcomes of CEA and CAS in octogenarians.

Methods: Patients greater than 80 years of age who underwent CAS or CEA between 2007 and 2017 were identified from the American College of Surgeons National Surgical Quality Improvement Program database. Multivariable logistic regression analyses were used to predict postoperative stroke, cardiac complications, 30-day mortality, major adverse cardiovascular events (MACE), and readmission.

Results: There were 180,082 patients who underwent CEA and 348 patients underwent CAS. CAS was more common with nonwhite race (13.8% vs 8.7%), American Society of Anesthesiologists class III to V (29.3% vs 19.8%), partial or total functional dependence (10.1% vs 6.0%; $P = .002$), chronic obstructive pulmonary disease (14.7% vs 10.0%), bleeding disorder (53.7% vs 22.9%), absence of coronary artery disease (93.1% vs 84.4%), and absence of a history of previous stroke (19.0% vs 26.0%) compared with CEA ($P < .01$). Patients undergoing CAS had higher rates of postoperative stroke (3.5% vs 1.9%; $P = .032$), cardiac complications (3.2% vs 1.8%; $P = .048$), MACE (8.1% vs 4.1%; $P < .001$), and readmission (12.1% vs 7.5%; $P = .001$) compared with CEA. The 30-day mortality was similar in both groups. On multivariable analyses, CAS compared with CEA was predictive for postoperative stroke (OR, 1.82; 95% CI, 1.01-3.29; $P = .047$), and MACE (OR, 1.82; 95% CI, 1.22-2.72; $P = .004$). However, CAS did not significantly impact the incidence of postoperative cardiac complications, 30-day mortality, or readmission.

Conclusions: The results of this study demonstrate that CAS predicts a higher risk of postoperative stroke and MACE compared with CEA in octogenarians. These findings suggest that CEA should be favored over CAS in this vulnerable patient population if an intervention is performed. However, owing to potential selection bias, this finding requires further investigation and currently enrolling randomized trials are expected to clarify these findings.

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IP137.



Analyzing Complications of Two Common Balloon-Mounted Covered Stents: What a National Database Is Telling Us

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Objectives: Balloon-mounted stents are commonly indicated for the treatment of iliac occlusive and/or stenotic atherosclerotic disease. The Manufacturer and User Facility Device Experience (MAUDE) Database was established by the U.S. Food and Drug Administration to allow for the voluntary reporting of adverse outcomes with medical devices. We set forth to examine MAUDE reports for differences in stent complications and management between two popular stent brands: Gore Viahn VBX (VBX; W. L. Gore & Associates, Flagstaff, Ariz) and Lifestream Balloon Expandable Vascular Covered Stent (LBE; C.R. Bard, Murray Hill, NJ).

Methods: MAUDE was accessed at a single time point for all events reported from January 1, 2017, to January 1, 2019, for VBX and LBE. Duplicate reports were removed. Variables collected from the reports included if the indications for use were followed, if the stent was returned to the manufacturer, if the complication involved stenosis/occlusion, when the complication occurred, and if secondary stenting was reported.

Results: A total of 148 entries were found, 92 were LBE and 56 VBX. Of all the problems listed, deployment complications accounted for only 5.4% versus 32.6% of VBX and LBE reports, respectively ($P = .0001$; Table).

Conclusions: In examining the MAUDE database, we found no significant difference in terms of time to report for the two stent types. VBX complications reported were more likely in compliance with the indications for use. Similar percentages of devices were returned to the manufacturer. More of the LBE complications reported involved stenosis and/or occlusion, required secondary stenting, and occurred during deployment. Use of a national database to compare similar balloon mounted cover stents can guide practitioners in examining potential changes in practice to minimize complications with different types of devices.