(61%) underwent muscle flap cover of the FPV reconstruction. In-hospital/30-day mortality was 5.4% (2 of 37); one from respiratory failure 20 days postoperatively, and the second, a 93-year-old woman, after withdrawal of care at 24 hours. No patients required fasciotomy, and five wound hematomas required reoperation. Focal femoropopliteal vein thrombosis occurred in five limbs. Over a mean follow-up of 2.5 years (range, 0.03-13.3) 11 patients died of unrelated causes at a mean of 3.7 years (range, 0.2-10.6 years). Graft reintervention was required in seven patients during follow-up for graft thromboses (n = 2) stenoses (n = 2), and anastomotic false aneurysms (n = 3). Apart from the latter, there was no other suggestion of graft reinfection in any patient. Major limb loss occurred in one patient at 6 months despite a patent graft. Long-term FPV harvest morbidity included mild leg swelling in 10 patients.

Conclusions: Replacement of infected synthetic grafts/femoral arteries in the groin with FPV is safe and results in excellent limb preservation and freedom from reinfection. FPV should be considered the preferred conduit in good-risk patients with infection limited to the groin.

Secondary Interventions After Elective Thoracic Endovascular Aortic Repair (TEVAR) for Degenerative Aneurysms: Incidence and Outcomes

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Objectives: We assessed the incidence and outcomes of secondary interventions (SI) after elective thoracic endovascular aortic repair (TEVAR) for aneurysmal disease.

Methods: An institutional review of TEVAR performed for descending thoracic aneurysms (DTAA) between 2000 and 2011 was performed from a prospectively maintained database. Only elective cases of TEVAR for DTAA using commercially available endografts were selected. The incidence of unplanned graft-related SI (ie, open conversion or proximal or distal extensions) was examined. Outcomes of each SI were then analyzed.

Results: We identified 83 patients who underwent elective TEVAR for DTAA. Eight patients (9.52%) subsequently required graft-related SIs. The mean interval to SI was 31.8 months. Patients who required SI were significantly younger than patients who did not require SI (mean age, 57.5 ± 11.6 vs 69.3 ± 11.4 years, $P < .05$). Endoleak was the most common indication for SI: five patients (62.5%) underwent SI for a type I endoleak (4 type IA, 1 type IB), one for aneurysmal progression without endoleak, one for type II endoleak, and 1 for type III endoleak. In the SI group, two patients (25%) required open conversion, five (62.5%) required secondary TEVAR (3 proximal and 1 distal extensions, and 1 relining), and 1 required endovascular coiling only. In the SI group, clinically relevant perioperative events occurred in three patients with one stroke (12.5%) and two access complications (25%). Operative mortality (<30 day) was zero with one aneurysm-related late death occurring at 2 years after SI. Factors that predispose the need for SI were fusiform morphology of the aneurysm ($P = .05$) and extent of graft coverage in the proximal landing zone ($P < .05$). Size of the aneurysm treated and the type of device used were not significant factors leading to SI.

Conclusions: Short-term and midterm results of elective TEVAR for DTAA demonstrate good durability with acceptable rates of graft-related SI. All currently available commercial endografts seem to perform equally in this setting. Age, fusiform aneurysm morphology, and extent of proximal landing zones were significant factors that led to subsequent SI. When SI is necessary, most issues can be resolved via endovascular means. Conversion to open repair, however, is not insignificant and may lead to increased operative morbidity.

Rate of Malignancy Detected on Postendovascular Aneurysm Repair Surveillance Computed Tomography Angiogram

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Objectives: Intuitively, patients with aortic aneurysms represent a high-risk population for the development of a variety of tumors. We sought to identify the incidence and pattern of new cancer diagnoses in a cohort after endovascular aneurysm repair (EVAR), and to determine the rate with which these diagnoses were obtained by surveillance computed tomography angiogram (CTA).

Methods: A prospective cohort of 331 patients undergoing endovascular exclusion of 286 abdominal aortic aneurysms, 31 thoracoabdominal and descending thoracic aortic aneurysms, and 14 isolated common iliac artery aneurysms between 1997 and 2009 was analyzed. We identified all patients diagnosed with new thoracic and abdominal tumors in addition to leukemia and lymphoma.

Results: Of this cohort, 193 patients (58%) carried a preoperative history of malignancy. The most common tumors encountered included prostate (n = 28), lung (n = 14), and breast (n = 10). During a median follow-up of 37 months, 29 patients (8.7%) developed 31 tumors. Thirteen of these tumors (45%) included newly diagnosed lung cancers in addition to renal cell carcinoma (n = 3), colon cancer (n = 2), prostate cancer (n = 2), and lymphoma (n = 2). Sixteen of these tumors (55%) were identified on post-EVAR surveillance CTA. The most common tumor encountered on post-EVAR surveillance CT was lung cancer (n = 7), 80% of which were stage I or "limited" at the time of diagnosis; all renal cell carcinomas (n = 3) were identified in this fashion. Mean interval to diagnosis after EVAR was 31.3 months.

Conclusions: Compared with the general population, patients with aortic aneurysms carry a heightened risk of cancer development. Serial CT scans for post-EVAR surveillance may reveal a high rate of malignancy in this population, such that vascular surgeons should remain observant and prepared to arrange for the appropriate oncologic follow-up. It seems possible that post-EVAR surveillance may allow for earlier cancer detection, and an effort to further identify whether this early detection offers a clinical or survival benefit is warranted.

Aortic Surgery for Aortic Graft Infections: Defining National Benchmarks for Standards of Care

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Objectives: Published literature on postoperative outcomes after aortic surgery for prosthetic aortic graft infection (AGI) is limited by relatively small sample sizes resulting in lack of national benchmarks for quality of care. We report in-hospital outcomes after aortic surgery for AGI and identify factors associated with postoperative complications using the Nationwide Inpatient Sample (NIS) database.

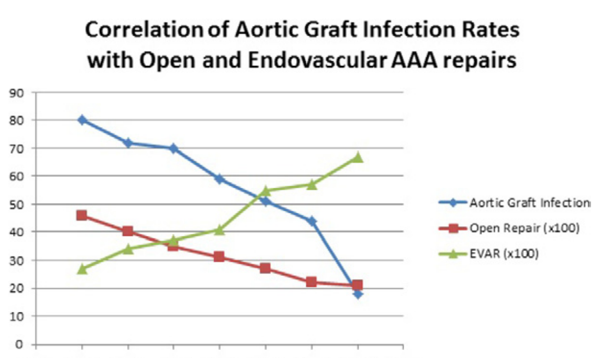

Fig.

Methods: Patients who underwent aortic graft resection for AGI were identified from the 2002 to 2008 NIS database, a multicenter database capturing 20% of all United States admissions. Multivariable logistic regression analyses were performed.

Results: In 394 patients (73.4% men) who underwent aortic surgery for AGI, median age was 72 years. Fifty-three percent of the admissions were emergent or urgent. Median hospital volume of aortic surgery for AGI during the study period was one case. A significant trend for decreasing number of AGIs per year was observed during the study span (Pearson's correlation $r = -0.96$; $P = .0006$). During the same time span, a significant correlation was also seen with decrease in open, and increase in endovascular aortic aneurysm repairs in the NIS database (Fig). In-hospital rates of overall postoperative morbidity and mortality were 68.3% and 19.8%, respectively. In-hospital rates of postoperative respiratory failure, renal failure, and cardiac arrest were 35.5%, 14.2%, and 8.9%, respectively. Median length of stay was 26 days, with median hospital charges being $184,162. On multivariable analysis, increase in age per year (odds ratio, 1.07; 95% confidence interval, 1.03-1.12) was independently associated with postoperative morbidity, whereas higher hospital volume for this procedure was protective (odds ratio, 0.71; 95% confidence interval, 0.56-0.89). On multivariable analysis,