different cohort compared to those requiring unilateral CIA stents. Bilateral CIA stents had significantly ($P <$ .05) higher rates of independent ambulation and claudication as the indication, with fewer prior aortoiliac and infrainguinal interventions, and less concomitant external iliac artery interventions and femoral endarterectomies. Patients who received unilateral CSs had the highest frequencies of critical limb ischemia (35.2%), acute limb ischemia (7.7%), previous interventions (21.5%), TASC D lesions (19.8%), total vessel occlusion (62.4%), nonelective interventions (17.8%), concomitant external iliac artery interventions (38.1%), and femoral endarterectomies (27.5%). For unilateral CIA stents, primary patency at 18 months was 83.7% for BMSs and 65.5% for CSs ($P = .0005$). Multivariable analysis demonstrated that loss of primary patency was associated with age (hazard ratio [HR], 0.97; $P = .005$), renal insufficiency (HR, 2.60; $P = .024$), nonindependent ambulation (HR, 2.09; $P = .005$), previous aortoiliac interventions (HR, 1.73; $P = .015$), CSs (HR, 1.88; $P = .006$), maximal diameter ≤7 mm (HR, 1.86; $P = .003$), and lack of dual antiplatelet therapy (HR, 1.65; $P = .012$). For bilateral CIA stents, primary patency was 82.1% for BMSs and 80.1% for CSs ($P = .56$). Loss of primary patency was associated with age (HR, 0.93; $P < .001$), previous aortoiliac intervention (HR, 2.1; $P = .002$), and maximal diameter ≤ 7 mm (HR, 1.88; $P = .004$).

Conclusions: Patients undergoing unilateral CIA stenting represent a subset of patients with more advanced disease and acuity compared to those undergoing bilateral stenting. For bilateral CIA stenting, CSs do not have superior primary patency rates compared BMSs in the midterm. However, in the setting of unilateral CIA treatment, CSs have significantly worse primary patency compared to BMSs, despite controlling for differences in patient selection.

Table.

Variable	*Bare metal stent, N (%)*	*Covered stent, N (%)*	P-*value*
Stent Configuration			
Unilateral	1480 (44.7%)	247 (40.2%)	.039
Bilateral	1834 (55.3%)	368 (59.8%)	
Indication			
Claudications	2522 (76.1%)	425 (69.1%)	.002
Rest pain/Tissue Loss	635 (19.2%)	151 (24.6%)	
Acute Limb ischemia	136 (4.1%)	39 (6.3%)	
Previous Aortoiliac Procedure	468 (14.1%)	114 (18.5%)	.0046
Urgent or Imergent	313 (9.4%)	78 (12.7%)	.014
TASC Classification			
A	1774 (53.5%)	258 (42.0%)	<.001
B	619 (18.7%)	150 (24.4%)	
C	319 (9.6%)	78 (12.7%)	
D	290 (8.8%)	110 (17.9%)	
CIA occlusion	1558 (47.0%)	362 (58.9%)	<.001
Femoral Endarterectomy	353 (10.7%)	123 (20.0%)	<.001
Maximum diameter <7 mm	2281 (68.8%)	471 (76.6%)	<.001
External Iliac Artery Treatment	643 (20.0%)	190 (10.9%)	<.001
Dissection or Perforation	134 (4.0%)	46 (7.5%)	.002
Antiplatelet Therapy at Discharge			
None	164 (4.9%)	51 (8.3%)	.0039
Aspirin Alone	915 (27.6%)	180 (29.3%)	
Plavtx Alone	333 (10.0%)	53 (8.6%)	
Dual Antiplatelet	1902 (57.4%)	332 (53.8%)	
Discharge Home	3169 (95.6%)	557 (90.6%)	<.001

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VESS15.

Multi-Institutional Experience in the Management of Adventitial Cystic Disease

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Objectives: Adventitial cystic disease (ACD) is an unusual arteriopathy; case reports and small series constitute the available literature regarding treatment. We sought to examine the presentation, contemporary management, and long-term outcomes using a multi-institutional database.

Methods: Using a standardized database, 12 institutions retrospectively collected demographics, comorbidities, presentation/symptoms, imaging, treatment, and follow-up data on consecutive patients treated for ACD over a 10-year period, using Society for Vascular Surgery reporting standards for limb ischemia. Univariate and multivariate analyses were performed comparing treatment methods and factors associated with recurrent intervention. Life-table analysis was performed to estimate the freedom from re-intervention when comparing the various treatment modalities.

Results: Forty-five patients (31 men, 14 women; mean age, 52) were identified with ACD involving the popliteal artery (n = 39), radial artery (n = 3), superficial/common femoral artery (n = 2), and common femoral vein (n = 1). Lower extremity (LE) claudication was seen 93% of ACD of the leg arteries, while patients with upper extremity (UE) ACD had hand or arm pain. Preoperative diagnosis was made in 86% of patients, primarily using cross-sectional imaging of the LE; mean LE ankle-brachial index (ABI) was 0.71 in the affected limb. Forty-one patients with LE ACD underwent operative repair (resection with interposition graft = 18; cyst drainage without resection or reconstruction = 8; bypass graft = 8; cyst excision = 5; excision with patch = 2). Two patients with UE ACD underwent cyst drainage without resection or arterial reconstruction. Complications, including graft infection, thrombosis, hematoma, and wound dehiscence, occurred in 11% of patients. LE patients undergoing cyst resection only or cyst excision and patch took longer before returning to normal activity (55 days; $P = .013$). Mean LE ABI at 3 months postoperatively improved to 1.07 ($P < .001$), with an overall mean follow-up of 6 years (range, 0.33-9 years). Eight patients (18%) with LE arterial ACD required reintervention (redo cyst resection = 1; thrombectomy = 3; redo bypass = 1; balloon angioplasty = 3) after a mean of 70 days (Fig), with symptom relief in 88%. LE patients who underwent cyst resection and

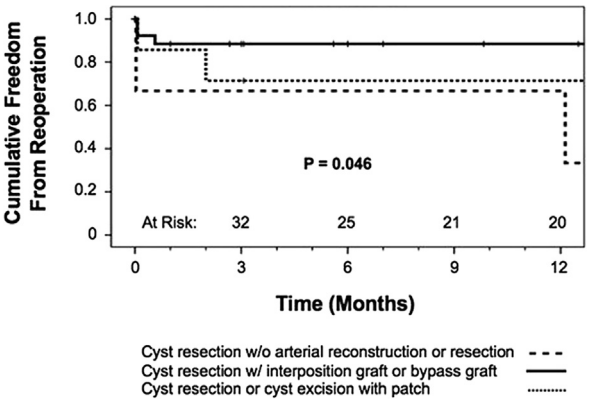

Fig.

interposition or bypass graft were less likely to require reintervention ($P = .046$). One patient with LE ACD required an above-knee amputation.

Conclusions: This multi-institutional, contemporary experience of ACD, the largest to date, examines the treatment and outcomes of ACD. The majority of patients can be identified preoperatively; surgical repair, consisting of cyst excision with arterial reconstruction or bypass alone, provides the best long-term symptomatic relief.

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VESS16.

Disproportionate Use of Atherectomy for SFA Interventions Between Office-Based and Hospital-Based Laboratories May Be Self-Serving

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Objectives: This study evaluated "real-world" data with regards to the current management of peripheral vascular disease using Medicare patients and specifically examined the type and frequency of endovascular interventions for occlusive disease of the femoral artery and the place of service of these interventions.

Methods: Analysis of Medicare Part B procedure and claims data summary from 2011 to 2014 was used for this analysis. Frequency of use of angioplasty vs angioplasty with stent vs angioplasty with atherectomy vs atherectomy with stent were analyzed for all endovascular leg interventions, as well as a more detailed analysis of the codes for endovascular femoropopliteal procedures. The place of service was recorded. Trends over time were then recorded.

Results: There has been a progressive increase in endovascular interventions for claudication from 2011 through 2014. Place of service trends reveal marked increase in procedures in office-based laboratories at the expense of hospital-based laboratories. Procedure trends demonstrate increase in all procedure types (ie, angioplasty, angioplasty with atherectomy and stent with atherectomy) with slight decline in stent with angioplasty. Femoral artery interventions at office-based labs increased by 3487 procedures from 2013 to 2014. From 2012 to 2014, the use of atherectomy in the office-based laboratory setting doubled. By contrast, atherectomy in the hospital setting (inpatient and outpatient) for the same time period saw no significant change. According to Centers for Medicare and Medicaid Services, atherectomy pays $12,000 to $18,000 per case in the outpatient setting.

Conclusions: Percutaneous treatment for occlusive disease of the femoral artery in patients presenting with claudication symptoms is increasingly being done in office-based laboratories. Explosive and disproportionate use of atherectomy in office-based vs hospital-based laboratories suggests that factors other than efficacy of treatment are likely responsible for this difference. Economic incentives inherent to the office based laboratory could be the difference.

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VESS17.

Amputation After Peripheral Vascular Intervention and Bypass for Claudication in the Vascular Quality Initiative (VQI)

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Objectives: Intermittent claudication (IC) is described to have benign clinical course, with 1-and 5-year major amputation rates of <1% and 1% to 3%, respectively. Intervention is typically undertaken to alleviate symptoms rather than prevent amputation. The efficacy of therapy is measured in the ability to provide sustained symptom relief and maintain patency. Any amputation precipitated by interventions for IC is abject failure of therapy. Given increasing frequency of IC procedures, it is crucial to determine how they alter the natural history of disease. Goal of this project is to define incidence and risk factors for amputation after IC treatment in Society for Vascular Surgery-Vascular Quality Initiative (SVS-VQI).

Methods: All IC VQI patients treated with peripheral vascular intervention (PVI) or surgical bypass were included. Patients with critical limb ischemia, or urgent/emergent procedures were excluded. Primary end point was minor (toe or transmetatarsal) and major amputation (below knee and above knee) within 1 year after peripheral vascular intervention (PVI)/bypass. Secondary end points included other adverse limb events within 1 year (wound/graft infection, and reintervention) as well as 30-day and 1-year all-cause mortality. For each procedure, univariate associations between predictors and amputation were investigated, and stepwise variable-reduction algorithm was used to find a "best subset" of predictors of amputation at any time-point after the procedure.

Results: A total of 16,428 patients were analyzed (67% PVI; 33% bypass). One-year any (minor + major) amputation rate for PVI and bypass was 1.3% and 2.1%