by claudication, CLI, and aneurysmal disease treated with an Endologix abdominal endograft.

Methods: A retrospective review of all endovascular aorto-iliac aneurysms repaired with an Endologix device was performed at a single institution between January 2008 and April 2013. This revealed 51 patients who were treated with the Endologix device for aorto-iliac aneurysms who had coexisting aortoiliac occlusive disease. Patient demographics, procedural details, and clinical follow-up were reviewed.

Results: All nine (100%) of the patients had claudication and three (33%) had CLI. One patient presented with an aortic rupture and the remaining eight patients were elective. Successful deployment of the endovascular device was achieved in all nine (100%) patients. There was no 30-day mortality or reintervention within one year. Of the nine patients, three (33%) had complete iliac occlusions which were all crossed utilizing an Outback re-entry device. The remaining six (66%) patients had iliac stenoses and two (22%) also had aortic stenoses. Preprocedural and postprocedural ABI’s were available in 8 of 9 patients. Mean bilateral preprocedure ABI was 0.70 which increased to 0.86 postprocedure.

Conclusions: Significant coexisting arterial disease may be encountered in patients with aortic or iliac aneurysms. Identification of coexisting arterial diseases is essential to help tailor treatment for coexisting occlusive and aneurysmal disease. The Endologix abdominal endograft has properties that perform well in this patient population in our single-center review.

Risk Factors for 30 Day Hospital Readmission in Patients Undergoing Treatment for Peripheral Artery Disease
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Objectives: Early hospital readmission among vascular surgery patients has become a focus for the restructuring of Medicare’s reimbursement system; however, risk factors for these readmissions remain poorly characterized. We aim to identify factors associated with 30-day readmission after peripheral artery interventions.

Methods: Retrospective analysis of 175 consecutive patients discharged between 1/1/2011-7/31/2012 who underwent treatment for lower extremity peripheral artery disease which included open endovascular procedures. The Endologix abdominal endograft has properties that perform well in this patient population in our single-center review.

Results: 37/175 (21%) patients were readmitted within 30 days of discharge; 7/37 (19%) readmissions were planned. There were no significant differences in demographic characteristics, comorbid conditions, length of hospital stay, or discharge functional status between the readmitted and nonreadmitted groups (Table). Readmitted patients were more likely to have undergone an urgent operation (P = .02). In a multivariate logistic regression model, urgency of operation (OR, 3.42; 95% CI, 1.35-8.67) and either chronic kidney disease or end stage renal disease (OR, 3.71; 95% CI, 1.39-9.91) were significantly associated with increased risk of 30-day readmission. Diabetes mellitus was associated with a lower risk of readmission (OR, 0.32; 95% CI, 0.12-0.83). The most common reasons for readmission were infection, either of the surgical site or index limb (18/37 = 49%) followed by persistent nonhealing wounds or rest pain in the index limb (11/37 = 30%). Graft failure requiring re-intervention accounted for 3/37(8%) of readmissions.

Conclusions: Thirty-day readmission is frequent after peripheral artery interventions, with the majority of these related to the index limb. Urgent operative intervention and compromised renal function appear to be risk factors for early hospital readmission.

Lower Extremity Autogenous vein Bypass for Critical Limb Ischemia Is Not Adversely Affected by a Failed Endovascular Procedure
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Objectives: It has been reported a failed endovascular intervention adversely affects results of lower extremity bypass (LEB). We reviewed rates of prior endovascular intervention in patients undergoing LEB with autologous vein for critical limb ischemia (CLI) to determine effects on graft patency, limb salvage and amputation free survival (AFS).

Methods: Review of consecutive autologous vein LEBs performed for CLI between 2005 and 2012 at a tertiary care academic medical center.

Results: Overall there were 311 autologous vein LEBs performed for CLI, 70% for tissue loss. TASC D or C lesions were present in 61% and 25%, respectively. The greater saphenous vein was used as a conduit in 85% and the distal target was infra-popliteal in 60%. 30-day mortality was 3.5%. One and 5-year primary patency was 61% and 45%. One and 5-year secondary patency was 88% and 68%, with 23% requiring an intervention to maintain patency. Five-year limb salvage was 90% and 95% AFS was 49%.

Sixty patients (19%) had undergone a prior ipsilateral endovascular intervention (PEI) and 251 were felt to be unsuitable for an endovascular intervention (NPEI). PEI and NPEI patients had similar demographics and prevalence of atherosclerotic risk factors. One-year primary and secondary patency were 61% and 87% for PEI patients and 60% and 89% for NPEI patients (P = NS). Three-year secondary patency was 76% for PEI and 68% for NPEI (P = NS). Three-year limb salvage was 94% for PEI vs 89% for NPEI (P = NS). Three-year AFS was 52.0% for PEI vs 59.1% for NPEI (P = NS).

Conclusions: Overall operative mortality, patency rates and limb salvage for autologous vein LEB in CLI patients continue to be excellent in the endovascular era and are not necessarily affected by a prior failed ipsilateral endovascular procedure. Long-term survival remains poor in CLI patients requiring LEB.

Endovascular Therapy Is Effective Treatment for Focal Stenoses in Failing Infrapopliteal Grafts
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Objectives: To evaluate the efficacy of endovascular therapy in failing infrapopliteal bypass grafts.

Methods: This is a retrospective review of endovascular procedures to preserve graft patency. Data were derived from a registry of catheter-based procedures for peripheral artery disease and review of records and angiographic images. Of 1554 arteriograms performed from 2006 to 2012, there were 44 interventions in 35 patients for failing bypass vein grafts to infrapopliteal target vessels. The first intervention for each patient was used in this analysis. Duplex ultrasound scanning (DUS) was routinely used within 30 days and at 3-6 month intervals for graft surveillance.

Results: Interventions were performed for recurrent symptoms of critical limb ischemia in 43% and for stenoses identified by DUS in 57%. Procedural techniques included cutting balloon angioplasty (74%), rotational balloon angioplasty (14%), stent placement (9%), and laser atherectomy (3%). Procedural success was achieved in 34 of 35 cases (97%). There were no procedure-related complications.
amputations, or deaths within 30 days. Residual stenosis was detected by DUS in seven patients; one had early endovascular reintervention and one had early surgical graft revision. Median follow-up time was 531 days. Kaplan-Meier analysis showed limb salvage rates of 93% at both 12 and 24 months; continued graft patency rates without need for reintervention were 29% and 24%. Receiver operating characteristic analysis identified that a lesion length of 1.5 cm maximized sensitivity and specificity in predicting restenosis (C statistic: 0.81); the restenosis rate for patients with lesions >1.5 cm was 100% at one year, and for lesions ≤1.5 cm was 43% at one year and 54% at two years (P < 0.001 by log rank test).

Conclusions: In this single-center experience with endovascular therapies to treat failing infrapopliteal bypass grafts, 93% of limbs were preserved, but over 70% of patients developed graft restenosis within 12 months. In particular, stenoses longer than 1.5 cm did very poorly with endovascular treatment. These data suggest that interventions to restore or prolong graft patency are effective in preventing limb loss and that close follow up with vascular laboratory surveillance is essential.

Midterm Outcomes of Neuroischemic and Ischemic Wounds Treated by a Multidisciplinary Limb Salvage Service
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Objectives: Multidisciplinary limb salvage teams have been shown to decrease the frequency of major amputations by increasing the rate of revascularization procedures and minor amputations. The outcomes of wound healing, recurrence and ambulatory status in multidisciplinary amputation prevention clinics are assumed to be improved but are not routinely reported. This study investigates the midterm outcomes of ischemic and neuroischemic wounds treated at our multidisciplinary limb salvage clinic.

Methods: A retrospective review of patients treated at a single institution multi-disciplinary limb salvage clinic over 12 consecutive months. Only patients with ischemic or neuroischemic wounds were included in the analysis. Patient demographics, wound characteristics, procedural details, clinical outcomes and ambulatory status were reviewed. Clinical endpoints under study included time to wound healing, reulceration rate and ambulatory status.

Results: Over the study period there were 141 new patients and 901 clinic visits. 80 patients were treated for neuroischemic or ischemic wounds. In 64% of patients (51/80) wounds were present for >6 weeks before referral. Previous vascular surgical history was present in 34% (27/80) and 23% (18/80) had a previous minor amputation. 40% of wounds (32/80) were limited to the toes or the forefoot whereas 21% (18/80) involved the rearfoot or ankle. A total of 62 vascular interventions were performed with an equal distribution of endovascular and open revascularizations. 56% of wounds (45/80) were fully healed over the observation period. The average time to fully healed was 16 weeks. Reafoot or ankle wounds were predictive of failure to heal (OR, 0.32; 95% CI, 0.10-0.99; P < .05). 16% of patients (13/80) developed a new wound on the ipsilateral leg during follow up. On initial evaluation 56% (45/80) of patients were fully ambulatory without assistance. After treatment, 13% of patients (10/80) had a net deterioration in their ambulatory status.

Conclusions: Multidisciplinary limb salvage teams effectively heal wounds and maintain ambulatory status in patients with ischemic and neuroischemic wounds. Patient risk factors, such as rearfoot or ankle wounds, can adversely effect on the outcome. Even with high quality care, 16% of patients can be expected to have a recurrence.