

overestimated it. The expenditure of DUAM is lower than both DSA and MRA.

Of 421 procedures based on DUAM, immediate clinical improvement was comparable between EvR and BS, with improvement to Rutherford category 3 or less 98% in EvR and 97% in BS ($P=0.71$). 6-year freedom from binary re-stenosis was 72.8% EvR and 65.3% BS ($P=0.7001$, $hr=1.10$, 95% CI = $[-0.69$ to $1.74]$). 6-year Amputation Free Survival was 72.9% EvR and 71.2% BS ($P=0.9765$, $hr=0.95$, 95% CI = $[-0.60$ to $1.51]$).

Comparing procedures performed based on DUAM to those based on MRA, 6-year binary re-stenosis was 69% for DUAM procedures Vs 57% for MRA procedures ($P=0.02$, $hr=0.255$, 95% CI = $[0.09-0.71]$).

Conclusions: DUAM is an outstanding pre-operative imaging tool and epitomizes a minimally invasive modality to road-map EvR for CLI and offers precise consecutive data with hemodynamic outcome and limb salvage superior to EvR based on MRA. We believe that DUAM is economically proficient, primary modality for managing patients with CLI.

Author Disclosures: S. Sultan: Nothing to disclose; W. Tawfik: Nothing to disclose.

PS116.

Our Experience with Laser Angioplasty of 258 Lower Extremities: Statin Use Improves Patency

Jung Kim, Sadaf S. Ahanchi, Jarrod Day, Brian Chen, Babatunde Almaroof, Megan Carroll, Jean Panneton. Eastern Virginia Medical School, Norfolk, VA

Objectives: The literature on atherectomy is difficult to interpret due to a lack of uniform reporting standards. Our objective was to review our experience with laser atherectomy and assess factors affecting patency.

Methods: We conducted a retrospective chart review of all laser atherectomies from January 1st, 2006 to May 31st, 2010. Periprocedural data was obtained from electronic medical records and subgroup analysis of isolated superficial femoral artery (SFA) atherectomy was completed.

Results: Laser atherectomy was performed on 258 limbs in patients with a mean age of 70. The procedural indication was claudication (51%) or critical limb ischemia (49%). Laser atherectomy was performed as a stand-alone procedure in 6%, with percutaneous transluminal angioplasty (PTA) in 73%, or with PTA/stenting in 22%. Arterial location was iliac/common femoral (2%), SFA/popliteal (66%), infrapopliteal (15%), or other (18%). Of 293 treated segments, 62.5% were occlusive and 37.5% were stenotic.

Overall primary patency rates at 1 and 3 years were 48% and 36%. Overall limb salvage rate for CLI limbs (130 limbs) was 93% at 1 year and 88% at 3 years. There was no significant difference between the statin (120 patients)

versus non-statin group (114 patients) for any demographic variables. The 1 and 3 year primary patency rates were significantly different between statin (57%, 45%) versus non-statin group (39%, 26%) (adjusted hazard ratio, 0.54; $p=0.01$).

Subgroup analysis of the isolated SFA interventions showed a significant difference in primary patency in favor of native versus in-stent arteries ($p=0.01$).

Conclusions: Laser atherectomy was mostly used in combination with PTA with acceptable patency and satisfactory limb salvage rate in CLI patients., The use of statins significantly improves primary patency after laser angioplasty.

Author Disclosures: S. S. Ahanchi: Nothing to disclose; B. Almaroof: Nothing to disclose; M. Carroll: Nothing to disclose; B. Chen: Nothing to disclose; J. Day: Nothing to disclose; J. Kim: Nothing to disclose; J. Panneton: Nothing to disclose.

PS118.

Morbidity of Prosthetic Graft Infections

Jeffrey J. Siracuse, Marc L. Schermerhorn, Prathima Nandivada, Kristina A. Giles, Allen D. Hamdan, David R. Campbell, Mark C. Wyers, Elliot L. Chaikof, Frank B. Pomposelli. Surgery, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA

Objectives: Prosthetic graft infection is a major and feared complication of peripheral vascular surgery. We set forth to investigate our institution's experience with these for arterial bypasses involving the femoral artery.

Methods: A retrospective cohort single institution review of prosthetic bypass grafts involving the femoral artery from 2005-2010 looked at patient demographics, BMI, comorbidities, indications, location of bypass, type of prosthetic material, case urgency, previous ipsilateral bypasses or percutaneous interventions, and evaluated mortality, amputations, graft infections.

Results: There were 255 prosthetic grafts identified. The graft infection rate was 4.7% with a median time to presentation of 90 days after bypass. Multivariate analysis shows redo (23% redo vs. 77% primary) bypass as a significant predictor of graft infection (OR 4.1, 95% CI 1.3-12.9, $p<0.05$). Redo bypasses made up 56% of graft infections. Female gender and diabetes trended towards significance as risk factors (OR 3.0, 95% CI .9-10.2, $p=.076$, OR 3.6, 95% CI .96-13.7, $p=.058$). Graft infection was predictive of major lower extremity amputation (HR 11.3, 95% 3.2-40.1, $p<.001$). There was no difference in mortality. Infected grafts were removed 77% of the time. Methicillin-sensitive *S. aureus* (42%) and *S. epidermidis* (33%) were the most common pathogens isolated.

Conclusions: Redo bypasses are at a higher risk for graft infection and that can lead to a higher rate of major extremity amputation. Alternate sources of vein and endo-

vascular interventions should be used when available in high risk patients.

Author Disclosures: **D. R. Campbell:** Nothing to disclose; **E. L. Chaikof:** Nothing to disclose; **K. A. Giles:** Nothing to disclose; **A. D. Hamdan:** Endologix, Consulting fees or other remuneration (payment); **P. Nandivada:** Nothing to disclose; **F. B. Pomposelli:** Nothing to disclose; **M. L. Schermerhorn:** Boston Scientific, Consulting fees or other remuneration (payment) Endologix, Consulting fees or other remuneration (payment) Medtronic, Consulting fees or other remuneration (payment); **J. J. Siracuse:** Nothing to disclose; **M. C. Wyers:** Endologix, Consulting fees or other remuneration (payment).

PS120.

Are Outcomes of Tibial Artery Atherectomy or Stenting Superior to Tibial Angioplasty Alone Over Time in the US Medicare Population?

Todd R. Vogel¹, Viktor Y. Dombrovskiy¹, Paul B. Haser¹, Jeffrey L. Carson², Alan M. Graham¹. ¹Department of Surgery, UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ; ²Department of Medicine, UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ

Objectives: Catheter-based revascularization for the tibioperoneal vessels is increasingly performed for limb salvage. Few data are available evaluating longitudinal outcomes after tibioperoneal angioplasty alone compared to adjunctive tibial procedures including stenting and atherectomy.

Methods: Patients undergoing percutaneous tibioperoneal interventions with a diagnosis of ulceration were identified using The Centers for Medicare & Medicaid Services inpatient claims (2005-2007). Patients were grouped: tibioperoneal angioplasty only (TA); tibioperoneal angioplasty plus stent placement (TA+S); and tibioperoneal angioplasty plus atherectomy (TA+A). Complications and longitudinal amputation rates were evaluated.

Results: 2,080 patients, with a mean age of 77.9±8.3 years (57.7% male; 79.1% White, 13.3% Black) underwent tibioperoneal angioplasty for the indication of ulceration. Procedures included: TA (56.3%), TA+S (16.2%); TA+A (27.5%). Overall initial hospital complications were not significantly different among groups. Rates of amputation are presented (See Table). Adjusted for age, gender, race, procedure, and comorbidities, predictors of 30- and 90-day, and 1-year amputation were male gender and diabetes. Mean total hospital charges were: TA (\$50,300), TA+S (\$65,680; P<0.0001); TA+A (\$54,808; P=0.057).

Conclusions: Patients undergoing tibioperoneal angioplasty with concomitant stenting or atherectomy during their initial intervention for ulceration incurred greater hospital charges and demonstrated no improvement on amputation rates over time compared to tibial angioplasty alone. Future trials of adjunctive tibioperoneal intervention

are essential to temper cost as they fail to improve long term limb salvage.

Rates of Any Amputation Over Time

Procedure	30-day Amputation Rate	90-day Amputation Rate	1 Year Amputation Rate
Tibial Angioplasty (TA) Alone	10.85%	18.79%	28.27%
TA + Stent	9.52%	15.18%	24.70%
TA + Atherectomy	9.08%	18.15%	28.10%
P-Values	All Differences NS	All Differences NS	All Differences NS
NS=Non-Significant			

Author Disclosures: **J. L. Carson:** Nothing to disclose; **V. Y. Dombrovskiy:** Nothing to disclose; **A. M. Graham:** Nothing to disclose; **P. B. Haser:** Nothing to disclose; **T. R. Vogel:** American Heart Association, Research Grants.

C3f: Poster Session - Peripheral Arterial Disease (2)

PS122.

Prosthetic Conduit is Equivalent to Alternative Vein Sources for Below-Knee Popliteal Bypass Targets in the Absence of Single Segment Greater Saphenous Vein

James T. McPhee, Neal R. Barshes, Louis L. Nguyen, Charles K. Ozaki, Michael Belkin. Vascular & Endovascular Surgery, Brigham & Women's Hospital, Boston, MA

Objectives: Single segment greater saphenous vein (SSGSV) is the conduit of choice for femoral to below-knee popliteal bypass (F-BKP). The purpose of this study was to determine the optimal conduit in patients with inadequate SSGSV.

Methods: This is a retrospective review of a prospectively maintained vascular registry. Patients underwent F-BKP bypass with either alternative vein (AV) [arm vein/spliced GSV/composite vein] or prosthetic conduit (PC) for any indication.

Results: From 01/95-06/10, 85 patients had unusable SSGSV for F-BKP reconstruction. 33 patients had AV conduit (18.2% arm vein; 81.8% composite) and 52 patients had PC (80.8% PTFE, 13.5% Dacron, 1.9% composite and 3.8% cryovein). The AV and PC groups had similar mean age (68 vs. 72.1, p=.08), DM (57.6% vs. 57.7%, p=.6), smoking (15.2% vs. 30.8%, p=.08), CAD (57.6% vs. 67.3%, p=.2), and CLI (93.9% vs. 86.5%, p=.2). Most were primary bypass attempts for both AV and PC (90.9% vs. 84.6% p=0.3). The CFA was the primary inflow for both (87.9% vs. 90.4%, p=.5). AV and PC groups had similar 30 day mortality (3.0% vs. 1.9%, p=.6) and major morbidity (6.1% vs. 7.7%, p=.6). PC patients were more likely to be placed on Coumadin (p=.001). By five-year life table analysis, there was no significant difference in terms of primary, assisted primary, secondary patency or limb salvage rates at mean follow up of 1087 and 665 days (Table). Of the 9 failed AV grafts, 7 had new bypass grafts created,