PS92.
Popliteal Artery Aneurysm Eligibility for Endovascular Repair
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Objectives: Endovascular popliteal aneurysm repair (EPAR) is an accepted option to open surgical repair in select patients. Anatomic restrictions limit suitability of EPAR, and the percentage of patients amenable to EPAR is not well documented. In this study, a cohort of patients undergoing surgical popliteal artery aneurysm repair was reviewed to determine EPAR suitability.

Methods: A retrospective review of all patients who underwent popliteal aneurysm repair from 1995 to 2011 was performed to determine the number of patients appropriate for EPAR. Exclusion criteria for EPAR included single vessel runoff, stent placement which would result in single vessel runoff, occlusion of SFA, thrombosis or rupture of the popliteal artery aneurysm, aneurysm extending to within 2 cm of the tibioperoneal trunk or proximal extension to the mid SFA.

Results: Sixty-one patients (95% male) with 111 popliteal artery aneurysms were identified. Fifty-three percent of patients were symptomatic at presentation. Seventy-six aneurysms were repaired during the study period. Of the 111 aneurysms, 69 had imaging sufficient to evaluate for EPAR. Runoff was a single vessel in (17%), two vessels in (30%), three vessels in (30%), and the popliteal artery was occluded in (19%). In 19 of the 69 aneurysms the imaging was determined adequate to determine eligibility for EPAR. Based on imaging it was determined that 36% of aneurysms would have qualified for stent graft repair. Only 18% of symptomatic patients and 31% of asymptomatic patients were candidates for EPAR.

Conclusion: Anatomic restrictions make EPAR unsuitable in the majority of patients with popliteal aneurysms, particularly in symptomatic patients. Surgical repair remains the procedure of choice in the majority of patients with popliteal aneurysms.

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PS94.
Do Women Have Worse Amputation-Free Survival than Men following Endovascular Procedures for Peripheral Arterial Disease? An Evaluation of the California State-Wide Database
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Objectives: In recent years, use of endovascular procedures for peripheral arterial disease (PAD) has exceeded use of bypass procedures. Previously, it has been demonstrated that female gender negatively affects the outcomes of PAD interventions. This study examined gender disparities in outcomes of endovascular procedures in a contemporary large population based study.

Methods: We used the Patient Discharge Data (PDD) from California’s Office of Statewide Health Planning and Development (OSHPD) to identify all patients >35 years of age who underwent PAD interventions during 2005-2009. Cox proportional hazard regression was used to compare amputation-free survival and logistic regression was used to compare 12-month re-intervention rate adjusting for age, race, insurance status, severity of illness, and co-morbidities. Two-sided Fisher’s exact test was used for comparison of critical limb ischemia between the sexes.

Results: During 2005-2009, 41,407 individuals underwent PAD interventions, 25,635 (61.9%) of whom had endovascular procedures (11,389 women (44.2%) and 14,246 men). Women were more likely than men (34.5% versus 30.1%, \(P < .0001\)) to present with critical limb ischemia. Although 12-month re-intervention rate in women was similar to men (OR 0.961(95% CI 0.91-1.01, \(P = .146\)), amputation-free survival was better among women than men (HR 0.841, 95% CI 0.761-0.93, \(P = .007\)) following endovascular procedures. Sex was not statistically associated with amputation-free survival following open procedures (HR 1.04, 95% CI 0.94-1.151, \(P = .444\)).

Conclusions: Despite presenting more frequently with critical limb ischemia, women had better amputation-free survival than men following endovascular PAD procedures in this contemporary population-based study. Further research is essential to help guide current practices of PAD management and address if these outcomes favor one type of PAD treatment modality in women.

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tions, routine use remains controversial. We evaluated CIM and compared graft patency in patients treated by surgeons who performed routine CIM versus those who performed selective CIM.

Methods: We reviewed the Vascular Study Group of New England database (2003-2010) and assessed the use of CIM (angiography and/or duplex) among patients undergoing LEB. Surgeon-specific CIM strategy was categorized as selective (<80% of LEB) versus routine (≥80% of LEB). Exclusion criteria were acute limb ischemia, bilateral procedures, and surgeon volume <10 cases/study period. Primary graft patency at discharge and 1-year were analyzed based on CIM utilization and surgeon-specific CIM strategy. Multivariable analyses were performed using Poisson regression.

Results: Among 2032 LEB procedures performed by 48 surgeons, CIM was used in 1368 cases (67.3%). Dialysis (OR 1.7, 95% CI 1.2-2.5; P = .01), elective LEB (OR 3.99, 95% CI 1.2-13.1; P = .02), and a great saphenous vein conduit (OR 2.0, 95% CI 1.6-2.5; P < .0001), and tibial/ pedal target (OR 1.8, 95% CI 1.4-2.3; P < .0001) were associated with CIM use. In multivariate models CIM was not associated with improved graft patency at discharge (OR 1.1, 95% CI: 0.7-1.7, P = .64) or 1-year (OR 1.0, 95% CI:0.8-1.4, P = .88). Sixteen surgeons (33%) were routine and 32 (67%) were selective CIM users. Discharge and 1-year graft patency was 96% versus 94% (P = .21) and 68% versus 72% (P = .09) in patients of routine versus selective CIM users. In multivariable analysis, routine or selective CIM strategy was not associated with improved discharge (OR 0.8, 95% CI:0.6-1.1; P = .3) or 1-year (OR 1.1; 95% CI: 0.9-1.2; P = .56) graft patency.

Conclusions: In our observational cohort, surgeon-specific strategy of selective CIM after LEB has comparable outcomes with routine CIM. Use of selective rather than routine CIM may lead to decreased health care resource utilization.

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PS98.

Risk Factors for Premenopausal PAD: A Review of Manitoba Vascular Laboratory Databases from 1993-2010

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Objectives: Despite similar risk factors, women have lower prevalence of PAD in the premenopausal period compared with age-matched men. The prevalence of PAD increases from 3-4% up to 29% in women after menopause. By the 7th to 8th decades, the prevalence is comparable in men and women. Little is known about the factors that protect women from PAD prior to the onset of menopause. The purpose of the study was to retrospectively review the ABI and risk factor data in premenopausal (<53 years of age) women referred for ABI testing in the province of Manitoba between 1993 and 2010.

Methods: In Manitoba, a province of 1.1 million, virtually all ABI tests are performed at two hospitals by trained technicians. Both sites also collect risk factor data. ABI was considered to be abnormal if less than 0.9. Risk factors included were smoking, coronary arterial disease, obesity, diabetes, hypertension, hypercholesteremia, cerebrovascular disease, and chronic renal failure.

Results: Between 1993 and 2010, 928 women under the age of 53 underwent ABI testing (4.2% of all women in the database). Of these, 260 had abnormal ABI (2.6%). Eighty-five percent were between the ages of 41-52 and 27.9% had critically low ABI. The most prevalent risk for premenopausal PAD in this population was current or former smoking (85%). In most cases multiple coexisting risk factors such as hypertension (57%), diabetes (55%), and hyperlipidemia (55%) were present; however, no risk factor other than smoking was present in 9.1% of women. In premenopausal non-smokers, PAD did not develop unless 3 or more risk factors were present.

Conclusions: The development of premenopausal PAD is unusual and does not develop without multiple combined risk factors. Current and former smoking was most associated with the development of premature PAD. ABI testing in premenopausal women without multiple combined risk factors, including smoking, is unlikely to be of value.

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PS100.

Prosthetic Graft versus Vein as Conduit for Extra-Anatomic Bypass: Short-term Outcomes from a National Database

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Objectives: To compare 30-day mortality and graft failure after use of prosthetic graft (PG) versus vein graft (VG) as conduit for extra-anatomic arterial bypass (EAB).

Methods: Patients who underwent axillary-femoral artery bypass (AFB) and femoral-femoral artery bypass (FFB) grafts were identified from the 2007-09 National Surgical