PP36. Outcome Following Loss of Primary Patency After Endovascular Intervention of Superficial Femoral and Popliteal Arteries

Maçan I. Dryski1, Monica O’Brien-Irr, Hasan Dosluoğlu1, Linda Harris2,3
1University at Buffalo, Buffalo, NY; 2Kaleida Health, Buffalo, NY

Objective: To evaluate outcomes following loss of primary patency (LPP) in superficial femoral (SFA) and popliteal (Pop) arteries treated by endovascular intervention (EVI)

Methods: The medical records of all SFA/Pop EVI performed by 2 Vascular Surgeons between 2005-2008 were reviewed to identify LPP defined as occlusion or need for re-intervention documented by duplex or angiography. TASC II, EVI type, Rutherford Score (RS) and Rutherford Improvement Scores (RIS) were recorded. Analysis was completed with SPS 15.

Results: LPP occurred in 38 patients (31%) at 8.6 ± 5.4 months. Twenty-four (63%) of these patients had EVI for critical limb ischemia (Rutherford Class 4-6). Mean follow up (FU) was 20 ± 11 months. Neither TASC II, RS at primary EVI (PEVI) or EVI type had significant impact on RIS at LPP. RIS at LPP was worse than before PEVI in 55%. Re-intervention was performed in 79% of LPP patients. Patients who never showed significant improvement between PEVI and LPP were unlikely to improve at FU (Table 1) despite a trend to undergo multiple re-interventions (55% vs. 13%; p=0.06). Survival and limb salvage at 24 months were 75% and 92%. Healing occurred in 46% of tissue loss patients at 11.9 ± 11.6 months.

Conclusion: EVI of the SFA/Pop arteries are not benign procedures. LPP occurred in nearly 1/3 of patients and 55% of those patients became worse than prior to PEVI. Despite reasonable limb salvage, healing occurred in only 46% and was delayed. Aggressive re-intervention after PLI may not improve outcome in patients who did not demonstrate significant improvement after PEVI.

Table 1

<table>
<thead>
<tr>
<th>Classification: PEVI/LPP</th>
<th>Improved RIS @ FU entire group N(%)</th>
<th>Improved RIS@ FU re-intervened N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement →</td>
<td>19(82%)</td>
<td>15(88%)</td>
</tr>
<tr>
<td>Worsening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unchanged/Worsening</td>
<td>3(20%)</td>
<td>2(15%)</td>
</tr>
<tr>
<td>P Value (Significance)</td>
<td>0.013</td>
<td>0.007</td>
</tr>
</tbody>
</table>

Author Disclosures: M.L. Dryski, None; M. O’Brien-Irr, None; H. Dosluoğlu, None; L. Harris, None.

PP37. Contemporary Results with Endovascular Therapy for Acute Limb Ischemia

Ramyar Gilani, Mohsen Bannazad, James F Bena, Timur P Sarac, Vikram S Kashyap. The Cleveland Clinic Foundation, Cleveland, OH

Objective: Endovascular therapies play an increasing role in the treatment of acute limb ischemia. The purpose of this study was to assess outcomes in patients treated for acute limb ischemia (ALI) with intra-arterial thrombolysis and/or percutaneous mechanical thrombectomy (PMT).

Methods: Consecutive patients (n=76) with ALI of the lower extremities treated via intra-arterial methods between January 1, 2005 and December 31, 2006 were identified and reviewed. Overall estimates of patency, limb salvage, and survival at 1 and 2 years were made using Kaplan-Meier estimation. Hazard ratios from Cox proportional hazards models were used to estimate differences in risk between groups for patency and survival.

Results: Patients with ALI (82 limbs) presenting with native artery or graft thrombosis (76%) underwent thrombolysis and PMT (46%) under local anesthesia (96%) for an average of 1.6 days. Adjunctive procedures were required in 94% of patients to treat the culprit lesion with solely open local anesthesia (96%) for an average of 1.6 days. Adjunctive procedures were required in 94% of patients to treat the culprit lesion with solely open. Subintimal recanalization (VASIR) for TASC C and D SFA atherosclerosis. Suitable vein. This study reviews our results with Viabahn stent graft-assisted subintimal recanalization (VASIR) for TASC C and D SFA atherosclerosis.

Methods: Thirteen males and fourteen females, mean age 73±11 years underwent TASC 28 VASIR for severe (TASC C, D) 24 (28%) to continuous infraoptrical run-off artery) SFA artery disease. Indications were claudication (14/28 limbs), ischemic rest pain (6/28), and tissue loss (8/28). VASIR was chosen instead of bypass due to comorbidities or lack of vein. Patients received aspirin and, if not already taking warfarin, they also received clopidogrel. Patients were examined with ABI and duplex scan at 1 month, then every 3 months after VASIR.

Conclusions: Despite significant early failures, we found VASIR to be durable in those who did not suffer early failure. VASIR is an acceptable alternative to venous bypass in selected patients with severe SFA disease. Warfarin may be valuable to reduce the risk of failure after VASIR.

Author Disclosures: J.R. Schneider, None; M.J. Verta, None; M.J. Alonzo, None; D. Hahn, None; N.H. Patel, None; S. Kim, None.

PP38. Major Limb Amputations Have Decreased in New York State During the Last Decade

Roman Nowygrod1, Natalia N Egorova2, Stephanie Guillerme2, Nicholas Morrissey1, Annette C Gelijns2, James F McKinsey2,3
1Columbia University Medical Center, New York, NY; 2Mount Sinai School of Medicine, New York, NY; 3Columbia University Medical Center, New York, NY

Background: Over the past decade, dramatic shifts in the management of vascular disease have increased safety and reduced mortality. This study examines the impact of these changes on limb salvage success.

Methods: NY State in-patient hospital discharge data from 1998-2007 were queried for patients who underwent either open or endovascular (endo) lower extremity revascularization procedures (LER) or amputation. Patients were selected by cross referencing ICD9 diagnostic and procedural codes. Proportions were analyzed by chi-squared analysis, continuous variables by t test and trends by the Cochran-Armitage test.

Results: Over time the combined rate of LE surgery decreased by 13%, with major shifts occurring in the type of surgery. While the per capita (100,000 population, age >40) volume for endo LER doubled (34.6 to 71.7), the number of major amputations and open LER declined by 38% (44.5 to 30.3) and 40% (104.2 to 62.2), respectively. Interventions for patients with critical ischemia (CI) declined by 17% (88.1 to 73.5), but those for claudication increased by 61% (17.7 to 28.6). Endo LER interventions for both claudication and CI nearly tripled (286%, 271%). Though the total