

Mid-term Angiographic and Clinical Outcomes following Infrapopliteal Artery Intervention in Patients with Critical Limb Ischemia

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Background: Endovascular therapy (EVT) in infrapopliteal arteries has been proven to lead to limb salvage with low morbidity and mortality in patients (pts) with critical limb ischemia (CLI). Because of the high prevalence of recurrence and technical difficulties, the EVT in infrapopliteal arteries are still challenging. **Methods:** A total 187 consecutive CLI pts were treated by EVT from September 2004 to September 2010. Out of 187pts, a total 97pts (115 limbs, 182 lesions) underwent infrapopliteal intervention with balloon angioplasty alone and/or provisional stenting. **Results:** The baseline clinical characteristics showed that the mean age was 67.0 ± 9.7 years old and diabetes was in 85.6%. Ipsilateral lesion was in 70.1% but bilateral diseases were found in 35.1%. Seventy seven % of pts had wounds. Out of 97 pts with infrapopliteal lesions, 92 pts underwent tibial and 25 pts peroneal percutaneous transluminal angioplasty (PTA). Concomitant iliac PTA was performed in 8pts (8.2%), 49 femoral (50.5%) and 7 popliteal (7.2%). A total 35 pts (35/97, 18.3%) had CTO lesions and mean lesion length was 86.62mm. Overall procedural success was achieved in 94 pts (94/97, 96.9%). Non-critical periprocedural complications were developed including 54 dissections (55.67%), 4 abrupt closure (4.1%), 7 no reflow (7.2%), 4 acute thrombosis (4.1%) and 14 perforation (9.7%). At 6 months, primary patent was 84.1%, secondary patency 86.6%, repeat PTA 10.5%, wound debridement 8.4% and major amputation 4.2% were occurred. **Conclusion:** Infrapopliteal intervention with balloon angioplasty alone and/or provisional stenting in a series of Asian CLI pts showed excellent mid-term patency and higher rate of limb salvage.