

PVSS11 Endovascular Treatment For Chronic Limb Ischemia As An Alternative To Surgical Bypass

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PURPOSE: To characterize the value of endovascular treatment (EVT) including percutaneous transluminal angioplasty (PTA) and stent placement as an alternative to the open-bypass surgery

METHODS: In a retrospective study, 66 patients with chronic limb ischemia were treated using EVT for below inguinal ligament focal stenotic/occlusive lesions. Pre-intervention symptomatic limb ischemia was stratified according to the clinical categories of chronic limb ischemia. 31 patients had disabling (<one block) claudication, 15 had rest pain, 17 had minor tissue loss, and 3 had major tissue loss +/- gangrene. There were 45 lesions in SFA, 28 lesions in popliteal and 21 lesions in tibioperoneal trunk. Occlusive lesions were treated by subintimal angioplasty. Stenoses were treated by PTA. The median length of the lesions was 12 cm. Stents were placed in 32 patients, 34 patients did not receive stents. The approach was contralateral in 71% (47/66) and ipsilateral in 29% (19/66) of cases. Patients were followed-up with physical exam, ankle brachial index (ABI), and duplex. Post-intervention medical treatment included aspirin and clopidogrel. Long-term patency was correlated with age, co-morbidities, risk factors, and the use of stents in addition to angioplasty.

RESULTS: 94 lesions were treated in 66 patients (36 males and 30 females) with a mean age of 70.2 years (range: 53-92) 65% had coronary disease, 67% were diabetic, 11% had chronic obstructive pulmonary disease, and 14% had renal insufficiency. EVT was technically successful in 65/66 of patients 98%. At completion angiography, residual stenosis (<30 %) was found in 3 cases, 2 in patients with PTA alone and one patient with stent. Median length of follow-up was 7 +/- 2 months. Post-intervention ABI improved from a mean of 0.65 to a mean of 1.01 (p<0.05). Peri-operative complication rate was 5% (hematoma). Overall patency rate was 95% (63 of 66) at 6 months, restenosis more than 50% was appreciated in 4 patients and occlusion occurred in 2 cases. Bypass surgery was avoided in 91% of patients. The rate of patency at 6 months was not affected by the stent placement, as 93% of stented patients were patent 6 months, while 92% of unstented patients were patent at 6 months.

CONCLUSION: Endovascular treatment is a safe, feasible, and effective method with a high short-term patency rate and may be used as an alternative to bypass for chronic limb ischemia.