

Percutaneous Peripheral Interventions In Diabetic Patients With Critical Limb Ischemia

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Background The object of this study was to assess on long-term clinical outcome the results of percutaneous peripheral interventions in diabetic patients with critical limb ischemia (CLI) in terms of occurrence of major amputation and mortality. **Methods:** From January 2004 to December 2006, all diabetic patients undergoing peripheral angiography and percutaneous revascularization for the presence of CLI were enrolled in this registry and followed prospectively. Limb salvage, mortality and repeat revascularization were reported long terms. **Results:** 140 diabetic patients (mean age 72.2±9.6) with 156 ischemic limbs and represent the study population. Hypertension was present in 119(85%) patients, hypercholesterolemia in 45(32%), smoking habit in 20(14%), chronic renal failure in 32(23%). Ischemic heart disease was present in 44(30%) patients, carotid disease in 40(28%) and both in 20(14%). According to Texas diabetic ulcers classification, 98(70%) of patients had type CIII lesion, 14(10%) CII, 4(3%) CI, 10(7%) DIII, 11(8%) DI and 3(2%) DII. 180 lesions (70 tibial arteries, 100 femoro-popliteal arteries and 10 iliac arteries) were dilated with stent implantation in 120(60%) of them. Procedure was successful in 168(93%) with restoration of direct flow in at least one tibial artery. Ankle-Brachial Index was 0.32±0.11 before procedure and increased to 0.77±0.23 (p<0.001). One patient died suddenly during Hospital. Mean follow-up length was 17±11 months. Of the 156 limbs, major amputation was necessary in 9(6%) of whom 4 had an unsuccessful procedure. Amputation was fatal in 4(44%) cases. Complete foot lesion healing was obtained in 129(82%) and partial healing in 18(12%). Death occurred in 23 patients (16%) and it was related to cardiac event in 9(6%), cerebrovascular event in 4(3%), acute renal failure in 4(3%) and cancer in 6(4%). Repeat revascularization occurred in 32(23%) of patients in the target limb and in 15(11%) in the controlateral limb. **Conclusion:** Peripheral angioplasty with stent implantation is a efficacious procedure for limb salvage in diabetic patients with CLI. The high mortality is probably related to the systemic atherosclerosis process with involvement of coronary and cerebral circulation that lead to heart and cerebral fatal ischemic events.