

Peripheral Angioplasty as the First-choice Revascularization Procedure in Diabetic Patients with Critical Limb Ischemia: Prospective Study of 993 Consecutive Patients Hospitalized and Followed Between 1999 and 2003

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Objective . To evaluate the effectiveness of peripheral angioplasty (PTA) as the first-choice revascularisation procedure in diabetic patients with critical limb ischemia (CLI).

Design . Prospective study.

Methods . PTA was employed as first choice revascularisation in a consecutive series of diabetic patients hospitalized for CLI between January 1999 and December 2003.

Results . PTA was successful performed in 993 patients. Seventeen (1.7%) major amputations were carried out. One death and 33 non-fatal complications were observed. Mean follow-up was 24.5 months. Clinical restenosis was observed in 87 patients. The 5 years primary patency was 88%, 95% CI 86–91%. During follow-up 119 (12.0%) patients died at a rate of 6.7% per year.

Conclusions . PTA as the first choice revascularisation procedure is feasible, safe and effective for limb salvage in a high percentage of diabetic patients. Clinical restenosis was an infrequent event and PTA could successfully be repeated in most cases.

Keywords: Diabetic foot; Critical limb ischemia; Peripheral occlusive disease; Peripheral angioplasty; Clinical restenosis; Limb salvage; Survival.

Successful revascularisation reduces the major amputation rate in diabetic patients presenting with critical limb ischemia (CLI). ¹ The effectiveness of peripheral bypass grafts (BP) ² and percutaneous transluminal angioplasty (PTA) ³ in achieving limb salvage has been established. ^{4,5} Nonetheless in recent publications scepticism is still expressed concerning the feasibility, effectiveness and long-term results of PTA, particularly in the treatment of infrapopliteal disease. ^{6,7} This is probably due to the absence of large-scale trials in

the literature. ⁸ In comparison to BP few reports have evaluated the long-term results of PTA. ^{9,10}

In our protocol for the treatment of diabetic patients with TransAtlantic Inter-Society Consensus (TASC) criteria of CLI, ¹¹ PTA is the first choice revascularisation procedure. PTA has a number of advantages: it does not require general or spinal anaesthesia, mortality is very low, complications are infrequent and a failed PTA attempt does not preclude a subsequent by-pass graft. ¹² The aim of this study was to evaluate the effectiveness and the limits of PTA as the first-choice revascularisation procedure in a consecutive population of diabetic patients with CLI, with or without foot ulcer, hospitalised from January 1999 through December 2003 and followed until June 2004.

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