

Critical Limb Ischaemia (CLI) in Diabetic Patients is Associated with Multi-Districtual Macroangiopathy but not with Micro-Angiopathy

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Introduction: Peripheral vascular disease in diabetic patient is a marker of co-morbidity for cardiovascular diseases, but still little is known about its association with microangiopathy and its short-term prognostic relevance in patients with CLI. **Patients, Materials and Methods:** We retrospectively evaluated 224 diabetic patients [Group 1 - Age 67.8 ± 9.9 yrs, Duration of Diabetes (DD) 20.5 ± 12.7 yrs, HbA1c $8.2 \pm 1.7\%$] with CLI who underwent PTA (211), By-pass (7) or combined revascularization (6) while admitted in our department during 2006 and 2007. All the patients had ischemic ulcerations, eventually complicated by infection (42.8%), gangrene (15.2%), or both (18.7%); 73.6% of them was symptomatic while 49.6% had rest pain. Patients underwent a thorough evaluation of macro- and microangiopathy, by means of EKG, Cardiac echography (CE), Carotid duplex scanning (CDS), Fundoscopy and Albuminuria/Creatininuria as part of staging of chronic complications of diabetes. In case of positivity of EKG or of CE they underwent coronarography and eventually underwent to PTCA or ACBP if indicated. Data were compared with a group of diabetic patients admitted in the same period without CLI (Group 2). **Results:** Group A patients showed a significant ($p < 0.05$) increase of the prevalence of both coronary artery disease (58.9% vs 34.1%) and emodinamic carotid stenosis (41.9% vs 25.6%) compared to Group B ones. Also the prevalence of PTCA (18.3% vs 11.2%) was significantly ($p < 0.05$) in Group A compared to group B. Viceversa retinopathy (37% vs 34.9%) and nephropathy (12.1% vs 14.7%) evaluations did not evidenced significant differences between the two groups. 76.4% of patients underwent successful revascularization (TcPo₂ pre- 21.1 ± 17.1 mmHg, TcPo₂ post- 41.1 ± 15.7 mmHg, $p < 0.01$), while 23.6% did not. No significant differences emerged in any of the parameters between these two sub-sets of Group A. **Conclusions:** CLI is associated with a more pronounced macrovascular impairment both in the coronary and carotid districts, but this is not paralleled by a similar microangiopathic involvement. Cardiovascular co-morbidity is not associated with a worse short-term prognosis for revascularization in CLI.