

Outcomes in Diabetic Patients with Critical Limb Ischemia: Role for Statin Therapy?

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Introduction: Diabetic patients are frequently complicated by peripheral vascular disease, and in some cases by critical limb ischemia (CLI) and high risk of lower limb amputation. PTA (Percutaneous Transluminal Angioplasty) is our preferred treatment for diabetic subjects with CLI. Several evidences show that statin therapy reduces cardiovascular events and mortality in patients with diabetes. Aim: To detect whether chronic treatment with statins is able to influence the outcomes of a group of diabetic patients with CLI treated by PTA. Materials and Methods: We included 378 diabetic patients (M / F 236/142) with CLI treated by PTA between October 2002 and February 2009 . After PTA our protocol includes a life lasting treatment with statins. However at the follow-up revealed that some patients were taking regularly statins (ST+), while some others had stopped this therapy some time after PTA (ST-). In the group treated with statins was then identified a subgroup in which the treatment was aggressive (at least atorvastatin 40 mg or rosuvastatin 20 mg) (ST ++). Results: at the follow-up (17.5 ± 14.2 months) we recorded the following outcomes: healing (A), major amputation(B), death (C) and survival with both legs without healing of the lesions (D), (p = 0.0032):

Total (n 478): 61.3% (A), 14.2% (B), 16.1% (C), 8.2% (D);

ST-(n 261): 58.8% (A), 18.4% (B), 18% (C), 4.6% (D);

ST + (n 185): 61.1% (A), 12.5% (B), 14.8% (C), 11.4% (D);

ST ++ (n 32): 68.7% (A), 0% (B), 6.2% (C), 25% (D)

We also recorded the LDL (mg / dl) at follow-up among the 3 groups (p = 0.3): 103 ± 31 (ST-), 97.2 ± 31.7 (ST +) and 97.1 ± 26.3 (ST ++). Conclusions : Our study has shown that statin therapy significantly increased the number of healed , and reduced the number of deaths and major amputations, more in patients treated with aggressive statins. The levels of LDL showed no significant difference between groups. The use of statins in diabetic patients treated with PTA implies a benefit regardless of the values of LDL cholesterol achieved with treatment.