

Risk stratification and long term follow-up of a large coorte of diabetic patients followed by Italian outpatient podiatric clinics - APORPIDIA PROJECT

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Introduction: All diabetic patients need to know their risk for foot lesion. We report the results of a large prospective study that included all the diabetic patients attending 30 outpatients podiatric clinics, distributed all over Italy, in a period of 24 months. They were evaluated and classified for their risk of foot ulceration and followed at least for 12 months thereafter recording hard outcomes as new foot ulcerations, major amputations and death. **Materials and methods:** The risk evaluation has been performed using a questionnaire on history of foot diseases and evaluating the presence of Peripheral Neuropathy (PN) (VPT monofilaments, DNI), Peripheral Vascular Disease (PVD) (Ankle Brachial Index ABI and foot pulses) and Foot Deformities (FD). Patients were classified in a specific risk class according to a modified Texas Classification Risk. **Results:** 4073 diabetic patients were recruited. Mean age 68.6 ± 14 yrs, 49% males, mean duration of disease 20 ± 11.4 yrs. They were distributed in the risk classes as follow Class 0 (PN-PVD-)(n=963)24%; Class 1a(PN+ PVD-) (n=506) 12%; Class 1b (PN \pm PVD+ ABI <0.9 >0.5) (n=315) 8%; Class 2a (PN+ FD+ PVD- (n=1371) 34%; Class 2b PN \pm PVD+ (ABI<0.5) (n=337) (8%); Class 3 previous foot ulceration and or amputation or presence of charcot foot (n=561) 14%. There was a strict correlation between the instrumental and clinical evaluation of PN as well as PVD in fact ankle jerks (absent, present with reinforcement and present were able to separate VPT values significantly different respectively 18.8 ± 0.49 , 25.2 ± 0.82 , 28.04 ± 0.7 $8p < 0001$) and peripheral pulses (present, reduced and absent) were able to separate different ABI values respectively 1 ± 0.06 , 0.96 ± 0.01 , 0.81 ± 0.02 ($p < 0.001$). 2955 patients (75%) were followed for a mean period 38 ± 18 months 1003 patients (25%) were lost and therefore not included in the follow -up. 225 patients had a new foot ulceration (7.3%); 68 patients (2,2%) had a major amputation, 26 patients (0.88%) died. The following % indicate the appearance of new ulcers in the different risk classes: Class 0 = 3.5; 1a = 7; 1b = 9; 2a = 6.6; 2b 6.6; 3 = 13.38 ($\times 2$ 0.001). On a multivariate analysis only age and the risk foot ulceration class were able to predict ulceration ($p < 001$). The latter was able to predict also major amputation ($p < 0.01$) **Conclusions:** These data show a good correlation between the clinical and instrumental evaluation of these chronic complications. Therefore it is important to define the risk class of each patient to customize the therapeutic approach according to the risk class in the prevention of foot ulceration and amputation in diabetic patients.