

Factors related to outcome of foot ulcers in diabetic neuropathic patientsC. Manes¹, T. Exiara¹, T. Katsaros², D. Petridis³, S. Georga⁴, N. Kefalogiannis⁵, N. Karatzas⁴¹Diabetes Center, Teaching Hospital "PAPAGEORGIOU", Thessaloniki, Greece,²Diabetic Foot Clinic, Public General Hospital of Athens "G.GENNIMATAS", Athens, Greece, ³Dept. of Food Technology, Alexandrian Technological and Educational Institute, Thessaloniki, Greece ⁴Dept. of Nuclear Medicine, Teaching Hospital "PAPAGEORGIOU", Thessaloniki, Greece, ⁵Diabetes Unit, "Venizelion" Hospital, Heraklion, Crete, Greece.

Background and aims: Numerous approaches to increase healing rates in diabetic foot ulcers have been investigated. This study was performed to determine the risk factors related to wound healing in neuropathic diabetic patients and to identify other factors modifiable and related to short-term outcome of diabetic foot ulcerations. **Patients and methods:** 53 (fifty three) consecutive diabetic patients presenting to the clinic with mainly neuropathic foot ulcers were included. Males were 27 (twenty seven) and most of them were type 2. Mean age (yrs) was 66,36±13,2 and mean duration of diabetes (yrs) 16,9±7,2. They were followed and treated according to standardized protocol until the wound healing was achieved or an amputation was performed. Severity of neuropathy, presence of peripheral vascular disease (PVD -ABI<0,9) and osteomyelitis (bone scans or probe to bone test) were recorded. The glycaemic control during the treatment period was recorded too. **Results:** 1) 7 patients (12%) were healed after an amputation. In a model of binary logistic regression analysis the presence of PVD and osteomyelitis were found to be independent risk factors for amputation (p<0,05). Age, sex, duration of diabetes and severity of neuropathy did not relate to amputation. 2) The odds ratio for amputation was 10,6 and 42,2 regarding the presence of PVD and osteomyelitis respectively. 3) Using the same way of analysis regarding the factors affecting primary healing only the HbA1c levels during the treatment period was found to be associated with a decreased risk of amputation (p<0,05). Odds ratio for amputation was 0,52 for patients with mean HbA1c 7,5±1,41 (vs 8.9%). **Conclusion:** The present study confirms that PVD and osteomyelitis are risk factors for amputations. Furthermore suggests the beneficial affect of glycaemic control during the treatment period in wound healing. Further research into modifiable factors that increase healing rates in diabetic ulcers is warranted.