What brings the future to patients after amputation?

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Introduction. Patients with a diabetic foot ulcer (DFU) have an increased risk for limb loss. Amputation is related with increased morbidity and mortality, leading to reduced quality of life. The aim of present study was to evaluate the outcome of diabetic patients after any amputation confined to the lower limb, and to compare the outcome with patients undergoing an amputation for peripheral arterial disease (PAD). Materials and Methods. This is a retrospective study, including all patients that underwent a minor (preserving the ankle) or major amputation at the Antwerp University Hospital in the period 1/1/2005 -31/12/2010; follow up (FU) extended until 31/12/2012. Indications for amputation were DFU and PAD (both acute and chronic limb ischemia); patients having an amputation for other purposes, were excluded. Statistics used were X^2 and logistic regression, uni- and multivariate analysis and Log Rank Kaplan Meier analysis. Results. In this time period, 208 patients underwent one (n=136) or more (n=72) amputations, for a total of 332 procedures. 148 patients were male; mean age was 71 years (34-99). DFUs were the most frequent reason for amputation (244/332), compared to acute (n=32) and chronic limb ischemia (n=56). There were 275 minor (toe: 193; ray: 53; forefoot: 29) versus 57 major amputations (below-knee: 39; above-knee: 18). After a mean follow up of 34 months, 60 patients had died (40 in the group of DFU; not significant compared to PAD); 32 patients were lost to FU (FU < 12 months); and wound healing was not achieved in 91 cases (71 in the group of DFU), leading to a second higher amputation in 74 of them. After logistic regression following factors were withheld as significant for primary healing after amputation: obesity (p=0.007), multiple toe amputations (p=0.001) and Lisfranc amputation (p=0.024). Neuropathy, renal insufficiency, smoking, and hypertension did not influence wound healing. Comparing the group of DFU versus those with PAD, those with PAD had a worse chance of wound healing (p=0.014). Conclusion. Amputation is related to a decreased life expectancy; however, mortality rates of patients having an amputation for DFU or for PAD were comparable. On the other hand, the latter group of patients had a worse wound healing rate.