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Outcome of 410 foot amputations in patients with diabetes

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Background: Patients with diabetes have an increased risk for foot ulcers and amputation. Foot amputations are performed on many diabetic patients but little is known about the outcome. The aim of this study was to analyse the outcome of minor amputations through or distal to the metatarsals in patients with diabetes. **Patients and Methods:** All diabetic patients in a defined population undergoing toe, ray, partial forefoot or transmetatarsal amputation between 1982 and 2006 were investigated according to a standardised protocol and were followed until final outcome (healing or death). Four hundred and ten amputations in 309 patients with an average age of 73 (32-93) years were investigated. **Results:** Sixty-four percent healed at a level below the ankle joint and 80% healed at the primary level or at a more proximal level. Thirty-seven percent underwent one or more reamputations and 19% died before healing was achieved. Median healing time for those who healed below the ankle was 26 (2-250) weeks. Patients with risk factors such as smoking, immunosuppression, cerebrovascular lesion and nephropathy healed at a level below the ankle joint in more than 60% of cases. Fifty-three percent of patients who underwent vascular intervention prior to amputation healed below the ankle. In patients who had not had vascular intervention 69% healed below the ankle. Toe and ray amputations (first ray and ray II-V) healed below the ankle in 73%, 59% and 66%, respectively. Partial forefoot (including and excluding the first ray) and transmetatarsal amputations healed below the ankle in 47%, 48% and 53%, respectively. **Conclusion:** In this population based study, 64% of foot amputations healed at a level distal to the ankle joint at the price of long healing times. Toe and ray amputations had a higher healing rate than partial forefoot and transmetatarsal amputations. Vascular intervention prior to amputation was associated with lower healing rate. Further studies are needed to assess quality of life in these patients.