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MORTALITY IN A COHORT OF DIABETIC PATIENTS AFTER LOWER-EXTREMITY AMPUTATION: A 6.5-YEAR FOLLOW-UP STUDY IN TAIWAN

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BACKGROUND/AIMS: To determine the mortality, causes of death and associated risk factors in Taiwanese diabetic patients after lower-extremity amputation (LEA).

METHODS: A total of 358 patients (191 men and 167 women, aged 66.6±10.3 years) were followed up after undergoing LEA. Possible risk factors included age, sex, smoking, body mass index (BMI), hypertension, systolic (SBP) and diastolic blood pressure (DBP), and LEA level. Mortality was ascertained from the National Death Registry.

RESULTS: With a follow-up of 1239.17 patient-years, 214 patients died. Crude mortality rate was 172.7 per 1,000 patient-years and median survival time 4.1 years. The underlying cause of death according to the ICD9 was recorded as diabetes mellitus in 57.9%, which is not attributed to disease of arteries, arterioles and capillaries. After adjustment for age and sex, smoking, SBP as continuous variable, SBP≥140 mmHg, BMI<18.5 kg/m^2 (underweight), DBP as continuous variable and DBP≥80 mmHg were assessed to be good predictors of mortality, but hypertension, BMI as continuous variable and LEA level were not ($p>0.1$). In the model including age (≥65 vs <65 years), sex (women vs men), smoking (yes vs no), BMI (<18.5 vs ≥18.5 kg/m^2), and SBP (≥140 vs <140 mmHg), respective mortality rate ratios were 1.892 ($p<0.0001$), 1.454 ($0.05<p<0.1$), 1.462 ($0.05<p<0.1$), 1.648 ($p<0.05$) and 1.338 ($0.05<p<0.1$).

DISCUSSION/CONCLUSIONS: Mortality after LEA in Taiwanese diabetic patients is high. The most common cause of death was recorded as diabetes mellitus. After adjustment, female gender, old age, high SBP, being underweight and smoking are predictive for mortality, while LEA level is not.

Key words: lower-extremity amputation, mortality, diabetes mellitus