

Risk of non-trauma lower extremity amputation in patients with type 1 diabetes - a population-based cohort study in Sweden

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Objective: To estimate the risk of non-trauma lower extremity amputations (LEAs) in patients with type 1 diabetes mellitus (T1DM). **Research Design and Method:** We identified, in the Swedish Inpatient Register between 1975 and 2004, 31354 patients (15001 women and 16353 men) who had been hospitalized for diabetes before age 31 years. They were followed for non-trauma LEA through cross-linkage in the Inpatient Register until December 31, 2004. Information on censoring was obtained through linkages to the Death and Migration registers. Poisson regression modeling was used to compare the risk of LEAs in different calendar periods of follow-up, simultaneously adjusting for gender and attained age at follow-up. Standardized incidence ratio (SIR) was used to estimate the relative risk with the age-, sex-, and calendar-period-matched Swedish general population as reference. The cumulative probability of LEA was calculated using the Kaplan-Meier method. **Results:** In total, 465 T1DM patients underwent LEAs. The risk had decreased in the most recent calendar period (2000-2004) compared to the period before 2000 (relative risk = 0.6, 95% confidence interval [CI] 0.5-0.8). However, even in the most recent period, these fairly young patients had 86-fold risk of LEAs (SIR =85.8, 95% CI 72.9-100.3) compared with the matching general population. By the age of 65 years, the cumulative probability of a LEA was 11.0% for women, and 20.7% for men. **Conclusion:** Despite of a tendency of decreased risk in recent calendar period, patients with type 1 diabetes are still at very high risk for LEAs.