

RELATIVE HAZARDS OF NON-TRAUMATIC LOWER EXTREMITY AMPUTATION AND PERIPHERAL REVASCULARIZATION PROCEDURES AMONG THE DIABETIC POPULATION IN TAIWAN

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AIMS: Using the National Health Insurance claim data, we assessed the age- and sex-specific relative hazards of nontraumatic lower extremity amputation (LEA) and peripheral revascularization procedures (PRP) of the diabetic population in Taiwan.

METHODS: A total of 500,868 diabetic patients and 500,248 age-and sex-matched controls identified from the ambulatory care claim data of 1997 and the registry for beneficiaries, respectively, were linked to the inpatient claims to identify hospitalizations of nontraumatic LEA and PRP between January 1997 and December 2002. We evaluated age- and sex-specific relative hazards of LEA and PRP in relation to diabetes with Cox proportional hazard regression model adjusted by demographics, geographic area and urbanization status.

RESULTS: Compared with controls, the overall hazard ratios (HR) of LEA were 9.22 in diabetic men and 11.67 in diabetic women. The HRs of PRP in the diabetic cohort, however, were lower (3.56 in diabetic men and 3.92 in diabetic women). In both LEA and PRP, the HRs increased with decreasing age. The highest HR of LEA was observed in diabetic women between 45 to 54 years (HR 27.92; 95% confidence interval [CI] 16.71-46.66), and that of PRP was in diabetic men between 35 to 44 years (HR 15.68; 95% CI 3.80-65.24).

CONCLUSIONS: In Taiwan, there was increased hazard of LEA in our diabetic population especially in the younger age group. We need a multidisciplinary diabetic foot care system as well as availability of revascularization procedures to reduce LEA in high-risk diabetic patients.

Keyword: Diabetes mellitus, Lower extremity amputation, Peripheral revascularization procedures