

GLYCEMIC CONTROL INCREASED RISKS OF DIABETIC PERIPHERAL NEUROPATHY IN ELDERS WITH TYPE 2 DIABETIC: TAIWAN DIABETES STUDY

全國糖尿病老人的血糖控制與周邊神經病變的風險

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The aim of the study was to explore the association between hemoglobin A1c (HbA1c) and the risk of diabetic neuropathy in elders with type 2 diabetes patients.

We conducted a retrospective cohort study on 14,177 type 2 diabetes elders who participated in the National Diabetes Case Management Program in Taiwan. HbA1c at baseline and diabetic neuropathy events were analyzed with Cox proportional hazards regression models.

The average follow-up was 6.4 years with a total of 3,332 incident cases of diabetic neuropathy, giving a crude incidence rate of 36.88/1,000 person-years (35.67 for men, 37.91 for women). The incidence rates of diabetic neuropathy were 27.69, 31.75, 34.11, 41.69, 41.78, and 51.27 per 1000 person-years in groups of baseline HbA1c <6%, 6-7%, 7-8%, 8-9%, 9-10%, and ≥10%, respectively. After multivariate adjustment, the risk of diabetic neuropathy was elevated among elders with HbA1c levels of 8-9%, 9-10, and ≥10.0% compared with patients with HbA1c levels 6-7% hazard ratio (HR): 1.25, 95% confidence interval (CI): 1.12-1.40; 1.25, 1.10-1.42, and 1.50, 1.38-1.68, respectively. Significant linear trends across different HbA1c levels were observed ($p < 0.001$).

Patients categorized as HbA1c greater than 8.0% exhibited an increased risk of diabetic neuropathy. Future studies should be conducted to determine how to meet the recommended HbA1c targets that could reduce the risk of diabetic neuropathy.