(B=6.800, \(p=0.02\)) tend to have more rapid eGFR declined rate within one year, while hypertension patients (B=-14.229, \(p<0.001\)) tend to have slowly eGFR declined rate within one year. Kaplan-Meier survival curve showed elderly CKD patients with DM had poor survival rate than elderly CKD patients without DM after regular dialysis. (Log Rank, \(p=0.03\))

**Conclusions:** Compare to elderly CKD patients without DM, elderly CKD patients with DM tend to have poor survival rate after regular dialysis, but the deterioration rate of renal function maybe not differ before dialysis.

**Risks of Heart Failure and All-Cause Mortality for Oral Anti-Diabetic Monotherapy and Two Oral-Diabetic Combination in Elders with Type 2 Diabetes in Taiwan**

糖尿病老人使用单一或複方血糖藥致心衰竭與死亡的風險

**Background:** Little studies have evaluated the risks of heart failure and all-cause mortality for oral anti-diabetic medication in elders with type 2 diabetes, especially in Chinese. This study determined if the risks of heart failure and all-cause mortality were different according to various oral anti-diabetic medications in Chinese elders who participated in the National Diabetes Case Management Program (NDCMP) in 2001-2004.

**Methods:** A nationwide, observational, retrospective, cohort of 5,256 patients with type 2 diabetes aged 65 years or older (mean age, 72.3 ± 5.0 years) who participated in NDCMP from 2001-2004 and who underwent follow-up for up to 2010. The individual's end point of heart failure and mortality was identified from inpatient or outpatient claim datasets of National Health Insurance Database according to ICD-9 diagnosis codes. We identified outpatient prescriptions within one-year of their enrollment to define their anti-diabetic drug use. An elder was defined as a user of an anti-diabetic drug if his/her number of prescription days for this specific anti-diabetic drug is greater than 90 days. The use of oral anti-diabetic medication was classified into 9 categories: no medication,
metformin monotherapy, sulfonylurea monotherapy, oral anti-diabetic drug (OAD) monotherapy other than metformin or sulfonylurea (OAD-other), metformin plus sulfonylurea, metformin plus other OAD, sulfonylurea plus other OAD, two OAD-other combination.

Results: A total of 6,694 heart failure events and 1,015 deaths were observed during the study period. Compared with no any anti-diabetes medication, the significant adjusted hazard ratios of heart failure were 1.26 (95% confidence interval [CI], 1.05-1.50) for OAD-other, and of all-cause mortality was 2.09 (1.12-3.89) for two OAD-other combination. In addition, the adjusted hazard ratio of all-cause mortality for two OAD-other combination compared with metformin was 2.07 (1.14-3.75).

Conclusion: Compared with no medication or prescription of metformin, prescription of two OAD-other combination was associated with an increased risk of mortality in Chinese elders with type 2 diabetes.

RISK OF STROKE FOR ORAL ANTI-DIABETIC MONOTHERAPY IN ELDERS WITH TYPE 2 DIABETES IN TAIWAN: TAIWAN DIABETES STUDY

台奫第三型糖尿病老人服用單一糖尿病藥導致中風的危險性

Li TC, Lin CC, Lin CS, Lin WY, Hu SL, Yang SY, Chen WH

Background: Previous studies suggested the use of metformin was associated with decreased risk of cardiovascular events. However, little studies have evaluated this risk in elders with type 2 diabetes, especially in Chinese. This study determined if the risk of stroke is decreased by metformin compared with other oral treatments for type 2 diabetes in Chinese elders who participated in the National Diabetes Case Management Program (NDCMP) in 2001-2004.

Methods: A nationwide, observational, retrospective, cohort of 5,256 patients with type 2 diabetes aged 65 years or older (mean age, 72.6 ± 5.2 years) who participated in NDCMP from 2001-2004 and who underwent follow-up for up to 2010. The individual's end point of stroke was identified from inpatient or outpatient claim datasets of National Health Insurance Database according to ICD-9 diagnosis codes. We identified outpatient prescriptions within one-year of their enrollment to define their anti-diabetic drug use. An elder was defined as a user of an anti-diabetic drug if his/her number of prescription days for this specific anti-diabetic drug is greater than 90 days. The use of oral anti-diabetic monotherapy was classified into 4 categories: no medication, metformin monotherapy, sulfonylurea monotherapy, oral anti-diabetic drug (OAD) monotherapy other than metformin or sulfonylurea (OAD-other).

Results: A total of 1,027 stroke events were observed during the study.