中文題目：老年糖尿病腎病變患者，其身體功能影響長期死亡:一回溯性長期世代的研究

英文題目：Physical performance on long-term mortality in older patients with diabetic kidney disease: a retrospective longitudinal cohort

作　　者：翁碩駿[1,2,3] 林承賦[2] 徐倩儀[4] 林時逸[2,5*]

服務單位：[1]國立中興大學醫學院, [2]臺中榮民總醫院高齡醫學中心, [3]內科部腎臟科, [4]臺中榮民總醫院醫學研究部生物統計小組, [5]內科部新陳代謝科

**Background**: Functional frailty, a state of pre-disability, is common with individual heterogeneity in older populations, especially those with diabetes mellitus (DM), heart failure (HF), and diabetic kidney disease (DKD). In older patients with DM, chronic kidney disease (CKD) and corresponding survey of physical function has not been elucidated.

**Method:** To explore the impact of frailty and physical performance on older patients with DKD, a retrospective and comparative longitudinal study with comprehensive geriatric assessment (CGA) was conducted in evaluating the long-term mortality between non-CKD and CKD older patients with diabetes from February 2010 to May 2018.

**Results:** Among 921 enrolled older diabetic patients, their mean age was 82.0 ± 6.7 years. After a follow-up years with median 2.92 (interquartile range [IQR] = 1.06-4.43), the mortality rate in univariate analysis of Cox proportional hazard model was higher in those diabetics with CKD (crude hazard ratio [cHR] = 1.92, 95% confidence interval [CI] 1.25-2.95), greater Charlson comorbidity index (cHR = 1.17, 95% CI 1.00-1.37), poor nutrition (cHR = 0.85, 95% CI 0.81-0.90), higher Rockwood frailty index (RFI) (cHR = 5.47, 95% CI 3.66-8.16), longer timed up-and-go (TUG) test score (cHR = 2.23, 95% CI 1.18-4.22), and lower handgrip strength (HGS) (cHR = 2.66, 95% CI 1.28-5.53). In the Kaplan-Meier plots, older patients with DM with CKD have poor survival (67.6%) than that in patients with DM with non-CKD (85.5%). In the subgroup analysis, older patients with DM with CKD & RFI ≥0.346, low HGS (female <10.57/male <20.4 kg), and long TUG (≥21 seconds) had the poorest survival followed by diabetic patients without CKD with high RFI, low HGS, and long TUG, diabetic patients with CKD and low RFI, fair HGS, and fair TUG, and those with no CKD, low RFI, fair HGS, and fair TUG, respectively.

**Conclusions:** The role of physical functionality is more important than CKD or other co-morbidities in older patients with diabetes.