244748 Factors Associated with Adverse Progression of Chronic Kidney Disease: A Longitudinal Study with 14-year Data in Taiwan

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Objective: The high incidence and prevalence rate of chronic kidney disease (CKD) severely threaten the people's health in Taiwan. If the disease becomes renal failure, the patients have to receive kidney transplant or dialysis treatment. This study analyzed the factors associated with the adverse progression of estimated glomerular filtration rate (eGFR) of CKD patients to provide references for future policy. Methods: This study collected 4464 CKD patients's 14-year annual health examination data in 1997-2010 in the nationwide health examination organizations. The multiple regression analysis was conducted to examine the factors associated with changes in the average kidney function eGFR value. Results: The factors influencing the worse progression of eGFR of CKD patients included gender, age, hypertension, hepatitis, lower hemoglobin or blood calcareous, higher fasting plasma glucose (FPG), BUN, or triglyceride. The males' eGFR annual descending rate was 0.25% less than females; the eGFR annual descending rate for patients aged 55~64 and ≥ 65 was 0.28% and 0.65% higher than those aged ≤ 35. Patients with hypertension or hepatitis had higher annual descending rate 0.22% and 0.27%, respectively. If hemoglobin or blood calcareous was higher, then eGFR descending rate was lower; however, when FPG, BUN, or triglyceride was higher, the eGFR annual descending rate was higher. Conclusion: All factors influencing the eGFR worse progression of CKD were included in the free adult health examinations in Taiwan except for the blood calcareous. We should provide kidney health education to CKD patients to avoid worsening the renal function.

Learning Areas:
Administer health education strategies, interventions and programs
Basic medical science applied in public health
Chronic disease management and prevention
Clinical medicine applied in public health
Public health or related education
Public health or related public policy

Learning Objectives:
To identify the risk factors associated with adverse progression of the estimated glomerular filtration rate (eGFR) of chronic kidney disease in the long term.

Keywords: Chronic Diseases, Health Risks

Presenting author's disclosure statement:

Qualified on the content I am responsible for because: I am a professor and researcher in a university.
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