

한국인에서 만성신질환의 역학: 전국 34개 병원의 국민건강보험 검진자료 분석

건국대학교 의학전문대학원 신장내과¹, 건국대학교 의학전문대학원 소아과², 순천향대학교 의과대학 신장내과³
고려대학교 의과대학 신장내과⁴, 서울대학교 의과대학 신장내과⁵

조영일¹ · 김교순² · 한동철³ · 권영주⁴ · 진호준⁵ · 김진국³ · 서장원¹ · 김성권⁵

Clinical Epidemiology of Chronic Kidney Disease in the Korean National Health Screening Program Data

Young-Il Jo¹, Kyo-Soon Kim², Dong-Cheol Han³, Young-Joo Kwon⁴
Ho-Jun Jin⁵, Jin-Kuk Kim⁵, Jang-Won Seo¹, Suhng-Gwon Kim⁵

Nephrology Konkuk University School of Medicine¹, Pediatrics Konkuk University School of Medicine²
Nephrology Soonchunhyang University College of Medicine³, Nephrology Korea University College of Medicine⁴
Nephrology Seoul National University College of Medicine⁵

Purpose : The prevalence and characteristics of chronic kidney disease (CKD) is not well defined although the population of CKD and end-stage renal disease (ESRD) has been increasing over recent years in Korea.

Object : The purpose of this study was to identify the prevalence of CKD and describe the risk of CKD among general population in Korea.

Methods : We conducted a cohort study of the population who participated in the Korean National Health Screening Program from January 2006 through December 2006. A total of 400,549 were enrolled from 34 hospitals. The data of 86,608 enrollees (mean age 35.3, male 58.4%), in whom GFR (eGFR) calculated using the modified MDRD equation was available, were used to assess the prevalence and the associated factors of CKD. We used the classification system of CKD proposed by K/DOQI guideline.

Results : The prevalence of CKD, based on the definition of CKD in K/DOQI guideline, was 6.7%. Population with eGFR <60 mL/min/1.73m² was 3.2% of subjects. The prevalence of CKD was strongly associated with increasing age. Percentage of patients with CKD (stage ≥3) increased from 1.3% to 13.8% when age increased from <40 to ≥60 years. Similarly, the percentage of subjects with male sex (73.5% vs. 57.9%), hypertension (27.7% vs. 9.5%), anemia (9.5% vs. 2.1%), proteinuria (26.5% vs. 4.5%), diabetes (6.1% vs. 2.3%), and hyperuricemia (41.9% vs. 15.1%) was significantly higher for CKD (≥stage 3) patients than non-CKD patients (p<0.001). In multiple logistic regression analysis, these factors were significantly associated with CKD more than stage 3: age (odds ratio [OR] 1.082, p=0.000), male (OR 1.536, p=0.001), hypertension (OR 1.653, p=0.002), anemia (OR 2.743, p=0.000), proteinuria (OR 2.996, p=0.000), diabetes (OR 2.996, p=0.000), and hyperuricemia (OR 1.698, p=0.000).

Conclusion : CKD was present in 6.7% of 86,608 adults in data of the Korean National Health Screening Program. The increasing age was a reliable predictor of a significant decline of eGFR. Additionally, male sex, hypertension, anemia, proteinuria, diabetes, and hyperuricemia were strongly associated with CKD.