

RESEARCH ARTICLE

Prevalence, risk factors and predicted risk of cardiac events in chronic kidney disease of uncertain aetiology in Sri Lanka: A tubular interstitial nephropathy

Thilini W. Hettiarachchi^{1*}, Buddhi N. T. W. Fernando², Thilini Sudeshika³, Zeid Badurdeen¹, Shuchi Anand⁴, Ajith Kularatne⁵, Sulochana Wijetunge⁶, Hemalika T. K. Abeyesundara⁷, Nishantha Nanayakkara⁸

1 Centre for Education, Research and Training on Kidney Diseases (CERTKiD), Faculty of Medicine, University of Peradeniya, Galaha, Sri Lanka, **2** Department of Medical Laboratory Science, Faculty of Allied Health Sciences, University of Ruhuna, Matara, Sri Lanka, **3** Department of Pharmacy, Faculty of Allied Health Sciences, University of Peradeniya, Galaha, Sri Lanka, **4** Division of Nephrology, Stanford University School of Medicine, Stanford, California, United States of America, **5** Cardiology Unit, Teaching Hospital, Kandy, Sri Lanka, **6** Department of Pathology, Faculty of Medicine, University of Peradeniya, Galaha, Sri Lanka, **7** Department of Statistics and Computer Science, Faculty of Science, University of Peradeniya, Galaha, Sri Lanka, **8** Transplant and Dialysis Unit, Teaching Hospital, Kandy, Sri Lanka

* hatwasana@gmail.com



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Abstract

Cardiovascular disease (CVD) is the leading cause of morbidity and mortality in patients with ‘traditional’ chronic kidney disease (CKD). However, chronic kidney disease of uncertain aetiology (CKDu), a tubular interstitial nephropathy is typically minimally proteinuric without high rates of associated hypertension or vascular disease and it is unknown if the rates of CVD are similar. This study aimed to identify the prevalence and the risk of CVD in patients with CKDu. This cross-sectional study included patients with confirmed CKDu who were attending two renal clinics in CKDu endemic-area. A detailed medical history, blood pressure, electrocardiogram (resting and six minutes vigorous walking), echocardiograms, appropriate laboratory parameters and medical record reviews were used to collect data at baseline. The WHO/Pan American Health Organization, cardiovascular risk calculator was employed to determine the future risk of CVD. The clinics had recorded 132 number of patients with CKDu, of these 119 consented to participation in the study. The mean age was 52 (\pm 9.5) years and mean eGFR was 51.1 (\pm 27.61); a majority (81.5% (n = 97)) were males. Thirty-four patients (28.6%) had evidence of ischaemic heart disease (IHD). Troponin-I (p = 0.02), Age >50 years (p = 0.01) and hyperuricemia (p = 0.01) were significantly associated with IHD in CKDu. Left ventricular hypertrophy was reported in 20.2% (n = 24). According to the risk calculator, 97% of the enrolled patients were at low risk (<10%) for experiencing a cardiovascular event within the next 10 years. Patients with CKDu have low prevalence and risk for CVD, implying that a majority are likely to survive to reach end-stage kidney disease. Our findings highlight the need for developing strategies to minimize the progression of CKDu to end-stage renal disease.