

## **Distribution and determinants of chronic kidney disease among patients treated in Teaching Hospital Jaffna**

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**Background and Objective:** Chronic kidney disease (CKD) is a major public health problem in Sri Lanka. CKD has increased in the Jaffna district over the past five years. This study describes the aetiologies of CKD and the presence of known risk factors among patients who were treated in Teaching Hospital Jaffna in 2020.

**Methods:** This was a descriptive cross-sectional study among patients who were treated for CKD in the Teaching Hospital Jaffna in 2020. A checklist was used to derive clinical data from BHTs; details concerning the patient's residence, including the surrounding environment within a 1 km radius, were obtained from a geographic information system (GIS). Data were analysed in SPSS software. Percentages and frequencies were used to summarise the data.

**Results:** In total, 304 patients were treated for CKD at Teaching Hospital Jaffna in 2020. Most patients were between 40-60 years (75%), males (68.4%) and of Tamil ethnicity (91.8%). With respect to aetiology, 42.8% of CKD were related to diabetic nephropathy, 3.3% were CKD of unknown origin (CKDu) and 53.9% were CKD due to other causes. Patients between 40 to 60 years of age (n=120) were predominantly affected by CKD. Most with renal failure who were not on dialysis (n=62) had diabetic nephropathy, while those who had dialysis or renal transplant (n=100) had nephropathy that was not due to diabetes or CKDu. While assessing the possible risk factors by using GIS, we found that the majority had no paddy field or vegetable garden and no major water reservoirs within 1km of their residence.

**Conclusions:** CKD is comparatively high among patients between 40 to 60 years of age. Males were predominantly affected by CKD irrespective of aetiology, which may be due to behavioural and occupational factors. Aetiological factors should be identified and eliminated to increase the life expectancy and quality of life of CKD patients.

**Keywords:** CKD, Risk factors, Hypertension, Diabetic nephropathy