

A study to compare the prevalence of anaemia in Chronic Kidney Disease of uncertain etiology (CKD-u) patients in Girandurukotte and Wilgamuwa with Chronic Kidney Disease (CKD) patients in Kandy

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Abstract

Chronic Kidney Disease (CKD) is a Public Health problem in worldwide. The severity of anaemia is directly related to severity of Chronic Renal Insufficiency. Chronic Kidney Disease of uncertain etiology (CKD-u) has become a serious public health crisis in Sri Lanka. CKD-u is slowly progressive, irreversible and asymptomatic until late stages and it is not attributable to hypertension, diabetes or other known etiologies. The goal of the study is to compare the prevalence of anaemia in CKD-u patients and CKD patients. Subjects were selected from Girandurukotte and Wilgamuwa which are highly prevalent areas for CKD-u. CKD patients were selected around Kandy as non-endemic area for CKD-u. Biopsy proven, non dialysis 119 CKD-u patients were selected for the study. For non-endemic control group, 119 age and sex matched, CKD patients were selected. Detailed history was obtained at the first visit of patients using a questionnaire. Blood samples for Full blood count and serum creatinine were taken.

Prevalence of anaemia in CKD-u and CKD patients are 72.3% (86/119) and 77.3% (92/119) respectively. When comparing anaemia in both groups, there is no significant association between CKD-u patients in endemic area and CKD patients in non endemic area ($p=0.37$). In CKD patients, chi square test shows, a significant association between stage of renal disease and the percentage of anaemic patients (p value = 0.002). However, in CKD-u, according to Chi square test, there is no significant association between the stage of renal disease and the percentage of anaemic patients ($p=0.695$). When compare the haemoglobin in stage 5 in both groups, percentage of anaemia in CKD-u and CKD were 83.3% and 100% respectively.

Anaemia in CKD is more prevalent than CKD-u. In CKD, percentage of anaemic patients steadily increases with the progression of the disease while such association is not seen in CKD-u patients.

Key Words: Chronic Kidney Disease, Chronic Kidney Disease of uncertain etiology, Anaemia