

**Abstract Submission No. : 2227**

### **Aspects of anemia in Sri Lankan CKDu cohort**

**SWMPWCIB Weerakoon**, HPN Santhushya Hewapathirana, HG Naduni Erandika, MGIH Bandara, HMDK Herath, Nishantha Nanayakkara  
Department of Centre For Research, National Hospital, Kandy, Sri Lanka

#### **Objectives:**

Patients with chronic kidney disease (CKD) often have anaemia, which contributes to poor outcomes. However, research on the expression patterns of anaemia in chronic kidney disease of undetermined aetiology (CKDu) is limited. This research aimed to determine the prevalence of anaemia in CKDu patients, categorize anaemia in CKDu, and describe anaemia in different phases of CKDu.

#### **Methods:**

In this cross-sectional study, we randomly selected 137 patients with previously diagnosed CKDu visiting a renal clinic in a CKD/u endemic region – Wilgamuwa, Sri Lanka from April 2021 to the second week of May 2021. The following variables were investigated concerning anaemia in CKDu: eGFR, haemoglobin (Hb), and mean corpuscular volume (MCV). IBM SPSS Statistics for Windows Version 26 (IBM Corp., Armonk, N.Y., USA) was used for statistical analyses.

**Results:** Study sample consisted of CKDu stage 2-5 patients, with a male preponderance (78.1%), age from 30 to 70 years, with a mean of 57.0 (SD= 7.9) years. Overall, 56.9% ( $p = 0.124$ ) of patients had anaemia, with males having a higher prevalence than females ( $p < 0.001$ ). The stage-wise prevalences were stage 2- 6.4%, stage 3a- 9.0%, stage 3b- 26.9%, stage 4- 47.4% and stage 5 having 10.3% ( $p = 0.001$ ). The CKDu stage was found to be a significant independent predictor of anaemia [ $\chi^2 (4, N = 137) = 18.766, p = .001$ ]. The median MCV was 91.1 (IQR= 5.55), ranging from 61.40 fL to 102.20 fL. Though there was an increase in median MCV with increasing CKDu severity, it did not differ significantly amongst CKDu stages. ( $p = 0.65$ ).

**Conclusions:** This study demonstrated that disease severity is associated with anaemia in CKDu. A larger sample with identical proportions of patients in respective CKDu stages could describe the changes in the morphological categories of anemia within CKDu phases.