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**Serum Ferritin Levels in Anaemic Chronic Kidney Disease Patients Attending Medical and Nephrology Clinics,
Teaching Hospital Jaffna**

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Background: Anaemia is a frequent consequence in the patients with chronic kidney disease (CKD). Serum ferritin is an indicator of iron stores and plays a crucial role in managing anaemia among CKD patients.

Objectives: This study aims to evaluate the association between serum ferritin level and gender, age, CKD duration & CKD stages in the patients attending Nephrology and Medical Clinic, Teaching Hospital Jaffna.

Methods: This was a descriptive cross-sectional study using convenient sampling technique. Among 137 CKD patients, 66 were identified as anaemic (WHO criteria) and were included in the analysis. Serum ferritin concentration was measured by immunoassay. Other required details were entered in a data entry sheet.

Results: Of the anaemic patients, 33 males (50%) and 25 females (37.9%) had normal serum ferritin levels, while 5 females (7.6%) had low ferritin levels. The mean serum ferritin levels were 89.98 (± 21.37) $\mu\text{g/L}$ in females and 135.64 (± 15.38) $\mu\text{g/L}$ in males. The mean serum ferritin levels increased with age, from 44.74 (± 8.39) $\mu\text{g/L}$ in patients ≤ 30 years to 36.01 (± 21.31) $\mu\text{g/L}$ in those ≥ 61 years. Males had higher mean ferritin levels than females in most age groups, except 51–60 years. The ages of the females had a significant influence on serum ferritin levels ($p = 0.028$). Males with 1–10 years of CKD had higher mean ferritin level than females. Serum ferritin levels significantly varied across CKD stages, with mean levels of 30.05 ± 30.36 $\mu\text{g/L}$ in stage 1, and 185.58 ± 141.13 $\mu\text{g/L}$ in stage 4 ($p = 0.001$).

Conclusion: Serum ferritin levels showed significant associations with age and CKD stages, but not with gender or CKD duration. These findings need to be interpreted with other inflammatory markers or additional iron studies in anemia management. Based on the demographic and CKD stage variations in serum ferritin levels, this study highlights the importance of implementing individualised anaemia management among the CKD population in Jaffna.