IS NEUTROPHIL/LYMPHOCYTE RATIO ASSOCIATED WITH GLOMERULAR FILTRATON RATE AND PROTEINURIA IN OLDER ADULTS WITH NON-DIALYSIS CHRONIC KIDNEY DISEASE?

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Objectives: Neutrophil/lymphocyte ratio (NLR) is a marker for chronic inflammation and is associated with cardiovascular diseases. We aimed to evaluate the relationship between NLR with estimated glomerular filtration rate (eGFR) and proteinuria in the elderly patients with chronic kidney disease (CKD).

Methods: Patients aged $\geq$ 65 years with non-dialysis CKD stage $\geq$ 3 and followed in the nephrology outpatient clinic with a diagnosis of CKD and admitted in January and February 2022 were included in this retrospective cohort study. The study group had no acute infection, chronic liver disease, connective tissue disease, inflammatory bowel disease and active malignancy. Demographic and clinical characteristics, medications and laboratory data were retrospectively evaluated from patients' charts. Estimated glomerular filtration rate (eGFR) was calculated using the CKD Epidemiology Collaboration equation. NLR is calculated by dividing the absolute neutrophil count by the absolute lymphocyte count obtained from a complete blood count.

Results: The study included 98 patients. The mean age of the patients was 75.4±6.2 years and 55.1 % of the patients were male. Among participants, 95.9% had hypertension, 44.9% had diabetes mellitus and 35.7% had cardiovascular diseases. The median eGFR and proteinuria were 29.6 (15.9-38.8) mL/min/1.73 m^2 and 0.24 (0.10-0.90) g/g creatinine, respectively. Number of patients with stage 3, 4 and 5 chronic kidney disease was 49 (50%), 28 (28.6%) and 21 (21.4%), respectively. NLR was significantly higher among patients with stage 5 CKD when compared to those with stage 3 CKD. NLR was a significant predictor of eGFR (t: -2.598, p=0.011) not for proteinuria (t=0.523, p=0.602).

Conclusions: NLR may be used as predictor of eGFR in elderly patients with non-dialysis CKD stage $\geq$ 3.