THE KOREAN SOCIETY OF NEPHROLOGY
APCN & KSN 2024
June 13(Thu) - 16(Sun), 2024 Coex, Seoul, Korea
Promoting Sustainable Kidney Health: The Asia-Pacific and Beyond

Abstract Submission No.: A-0166

CORRELATION BETWEEN ESTIMATED GLOMERULAR FILTRATION RATE (eGFR) AND LEFT ATRIAL FUNCTION IN PATIENT WITH PRADIALYTIC CHRONIC KIDNEY DISEASE

Dian Pritasari Jeger[1], I Gede Raka Widiana[2], Yenny Kandarini[2]
[1]Department of Internal Medicine, Indonesian Society of Internal Medicine, Indonesia
[2]Department of Internal Medicine - Nephrology, Indonesian Society of Internal Medicine, Indonesia

Objectives : Chronic kidney disease (CKD) is defined by decrease in renal function shown by eGFR less than 60 mL/min/1,73 m^2, or present of markers of kidney damage, or both, at least 3 months, regardless of the underlying cause. One of CKD complication is cardiovascular disease (CVD). Left atrial abnormalities, including structural and functional abnormalities, and left atrial volume increment, are independent prognostic factors of end-stage CKD. Echocardiographic parameters related to left atrial function and well-validated use are Left Atrial Volume Index(LAVI), Left Atrial Ejection/Emptying Fraction (LAEF), and Left Atrial Pressure (LAP).
Methods : This was an analytical cross-sectional study. Subjects were recruited with consecutive sampling technique in Prof. Dr. I.G.N.G Ngoerah General Hospital, Denpasar during the period 2019-2020. The eGFR value was calculated by entering the serum creatinine value into the CKD-EPI formula. Evaluation of left atrial function using Philips Epiq 5Cechocardiography. LAVI, LAEF, and LAP values were measured by two observers blindly and independently.
Results : There were 40 subjects with pradialytic CKD of 28 men (70%) and 12 women (30%). The mean creatinine value was 4 ± 1 mg/dL and the eGFR value was 18 ± 11 mL/min/1.73 m^2. While the mean value of echocardiographic parametersobtained LAVI 23 ± 10 mL/m^2, LAEF 53 ± 15%, and LAP 13 ± 5 mmHg. In this study, there was a correlation between eGFR and LAVI (r= -0,452; R^2=20,4%; p= 0,003), no correlation between eGFR and LAEF (r= 0,266; R^2=7,1%; p=0,097), and there was a correlation between eGFR and LAP in pradialytic CKD patient (r= -0,511; R^2=26,1%; p=0,001).
Conclusions : There was a correlation between eGFR and LAVI in pradialytic CKD patient. There was also a correlation between eGFR and LAP in pradialytic CKD patient. Age and LVMI also affect LAVI in pradialytic CKD patients.

Figure 1.jpg

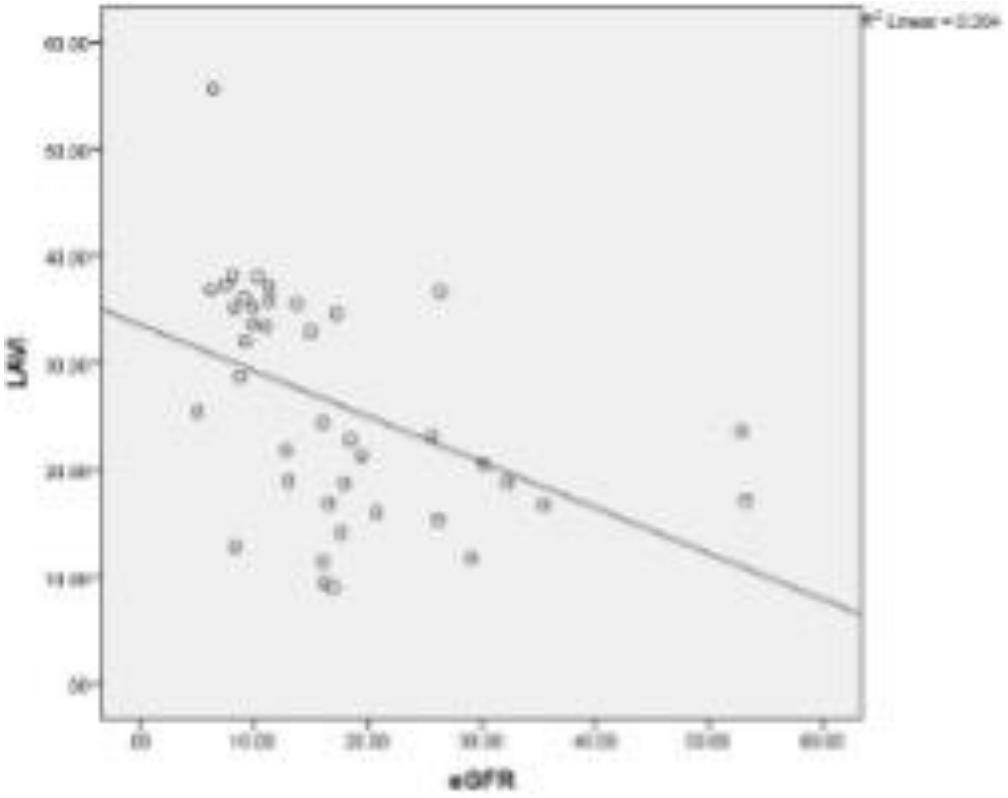

Figure 1.jpg