SERUM 25-HYDROXYVITAMIN D LEVELS AND RISK OF INCIDENT HEART FAILURE IN PATIENTS WITH NEWLY DIAGNOSED HYPERTENSION

B. Boyuk\textsuperscript{1}, A. Basmakci\textsuperscript{1}, E. Yucel\textsuperscript{1}, S. Guzel\textsuperscript{2}, V. Kucukyalcin\textsuperscript{2}, I. Ekozuglu\textsuperscript{1}

\textsuperscript{1}Department of Internal Medicine, Gaziosmanpaşa Taksim Education and Research Hospital, Turkey
\textsuperscript{2}Department of Biochemistry, Namik Kemal University, Turkey

Both vitamin D deficiency and hypertension widely affect the general population. The studies about the interaction between these two conditions is intriguing. This study aims to determine the association between levels of 25-hydroxyvitamin D (25\textsuperscript{(OH)}D) in the sera of newly diagnosed hypertension patients and risk of incident heart failure. We recruited 50 newly diagnosed hypertension patients and 20 healthy controls and assessed them for left ventricular diastolic dysfunction by echocardiography. Patient blood was tested for 25\textsuperscript{(OH)}D concentrations. Patient group is divided into two subgroups: Group 1 subjects had lower serum 25\textsuperscript{(OH)}D (ng/ml) levels of patient group were significantly lower than the control group (15.63 ±5.71; p=0.004). E/A, and diastolic diameter were significantly different (p<0.05) between the Group 1 and Group 2. EF, diastolic diameter, systolic diameter, systolic arterial pressure, and gender had significant effects on the multivariate model (p<0.05). Study results support the theory that vitamin D deficiency plays a role in the development of heart failure. Our study found a relationship between 25\textsuperscript{(OH)}D vitamin levels and left ventricular diastolic dysfunction in newly diagnosed hypertension patients.