

## **CORRELATION BETWEEN SERUM LEVELS OF PARATHYROID HORMONE AND ECHOCARDIOGRAPHIC PARAMETERS IN TERMINAL CHRONIC KIDNEY DISEASE PATIENTS**

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**Introduction:** Cardiovascular complications are a leading cause of death in patients in Stage 5 of chronic kidney disease. Secondary hyperparathyroidism which occurs in Stage 5 of chronic kidney disease leads to an increase in serum parathyroid hormone which as a result contributes to further damaging of the myocardium.

**Aims:** To determine the correlation between serum parathyroid hormone levels and left ventricular myocardial hypertrophy Stage 5 chronic kidney disease patients. Investigate the connection between serum parathyroid hormone levels and other echocardiographic findings (systolic/diastolic insufficiency, heart valve insufficiency) in end stage chronic kidney disease patients.

**Materials and methods:** A retrospective study which included 53 patients aged 18 to 61 years was conducted. It involved patients who were included in the kidney transplant waiting list and are currently undergoing hemodialysis or peritoneal dialysis.

**Results:** Patients in Stage 5 of chronic kidney disease with low serum parathyroid hormone levels develop a left ventricular myocardial hypertrophy in over 50 and 61,9 of the cases, and a damage of the mitral heart valve (33 of the patients). Patients with moderate and high serum parathyroid hormone levels have a diastolic dysfunction in 56,25 of the cases, as well as a damage of the mitral heart valve in 50 of the cases, and damage of the aortic valve in 33,3 of the cases.

**Conclusion:** It has been found that there is a positive correlation between serum parathyroid hormone levels and left ventricular myocardial hypertrophy in Stage 5 chronic kidney disease patients. There was however, no significant correlation between parathyroid hormone levels and diastolic dysfunction, as well as heart valve insufficiency in our patients.

**Keywords:** chronic kidney disease, parathyroid hormone, heart insufficiency, myocardial hypertrophy