

# **SERUM 25(OH) VITAMIN D, CALCIUM AND PHOSPHORUS LEVELS IN CHRONIC KIDNEY DISEASE**

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## **Abstract**

Chronic kidney is associated with poor outcomes and becomes growing health problem. In CKD, there is progressive reduction of GFR and patients with CKD are at high risk for progression to the CKD-MBD, which leads to bone fracture and vascular calcification, which is a cause of significant morbidity. To improve the management of CKD and controlling abnormal bone mineral metabolism and its complications, early diagnostic tests for CKD-MBD are needed in CKD patients. This study aimed to find out the bone mineral biochemical parameters (Vitamin D, calcium and phosphorous) levels in different stages of CKD patients. A Laboratory based cross-sectional descriptive study was done at Renal Medical unit and pathology department of (MGH) and Department of Medical Research (Pyin Oo Lwin Branch) from April 2018 to today. After getting informed consents from the participants and explaining the purpose, risks and benefits of the research, a total of 117 (sample size-120) patients were collected in the study. After that, about 3ml of blood sample was collected by single venipuncture using sterile syringe and needle. The samples were transported to chemical pathology department of MGH and department of Medical Research (Pyin Oo Lwin). The blood was allowed to clot and centrifuged at 3000 rpm for 15 minutes to separate serum. The serum sample was analyzed for vitamin D by mini VIDAS. The serum calcium and phosphorus levels were determined by Pentra 400 auto analyzer. eGFR was calculated by using creatinine based CKD-EPI formula. Then association of stages of CKD and biochemical parameters were studied.