

Study of the Prevalence and Severity of Disordered Mineral Metabolism in Patients with Chronic Kidney Disease Stage-5 on Hemodialysis

Rana Fathima, Cheeti Upendar Rao

Dr. Cheeti Upendar Rao, Assistant Professor, Department of General Medicine, Prathima Institute of Medical Sciences, Naganoor, Karimnagar. Email: uppirao.ch@gmail.com

Abstract

Background: Chronic kidney disease mineral and bone disorder is a systemic disorder that involves bony abnormalities and vascular calcification. The kidney plays an important role in calcium and phosphorus regulation and hence renal dysfunction is necessarily associated with abnormalities in mineral homeostasis which have a wide range of effects not only on the bone but also on extra-skeletal sites. **Methods:** This prospective study was done in the Department of Nephrology, Prathima Institute of Medical Sciences, Naganoor, Karimnagar. CKD Stage-5 adult patients on regular maintenance hemodialysis. Newly diagnosed CKD Stage 5 and prevalent CKD Stage 5 on Dialysis adult patients of 18 years and above were included. **Results:** Calcium level distribution among the observation found that there was 70% of observations had calcium levels < 8.5 mg/dl while 30% of the observation had calcium levels > 8.5 mg/dl. Phosphorous level distribution among the observation showed that there was 100% observation had Phosphorous level < 5.5 and no observation were found phosphorous level >5.5 mg/dl. It was observed that ALP level, 50% of the observation had the ALP level <120 (IU/L) as well as > 120(IU/L). **Conclusion:** The mean calcium levels were lower than KDIGO targets. However, mean PTH levels were higher than targets. The majority of the study population was found to be vitamin D deficient. A unique finding in the present study was serum phosphorus levels were within normal limits, which has been observed in other groups of populations studied in India.