

FACTORS INFLUENCING PARATHYROID HORMONE LEVELS AND ANEMIA IN ESRD.

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Elevated ParaThyroid Hormone (PTH) and anemia is a common occurrence in patients with End Stage Renal Disease (ESRD). Our aim is to study the factors contributing to elevated PTH levels and anemia in these patients.

Data from total 65 patients undergoing Hemo-Dialysis (HD) (41) and Peritoneal Dialysis (PD) (24) collected over 3 to 6 months was retrospectively analyzed. Average of all the variables were compared and studied.

The mean age of patients was 59.9 ± 20 . Between HD and PD patients, there is no statistical difference between mean hemoglobin (Hb) (34.93 ± 5.1) (34.5 ± 3.2), PTH (446 ± 658) (327 ± 257), albumin (3.67 ± 0.2) (3.65 ± 0.28), serum calcium (8.8 ± 0.42), (8.9 ± 0.35), serum phosphorus (5.7 ± 0.88) (5.5 ± 1.01), calcium phosphorus product (CPP) (50.2 ± 8.8) (48.3 ± 9.4), average ESA requirement (1231 ± 1703) (696 ± 725) respectively. ESA requirement is high in patients with elevated PTH levels in PD patients ($p=0.018$). PTH levels are elevated in patients with elevated Blood urea Nitrogen ($p=0.011$). High calcium phosphorus product is associated with high albumin (0.03), less anemia (0.049) and low ESA requirement (0.0213).

Elevated BUN may influence PTH levels in ESRD. Patients with consistently elevated PTH levels need more dialysis to lower PTH. Patients with elevated PTH have corresponding anemia due to interference with ESA responsiveness. Patients with better nutrition and CPP seem to have better anemia control.