

**Abstract Type : Poster exhibition****Abstract Submission No.: A-0929****Abstract Topic : Dialysis****Assessment of Anemia in Hemodialysis Patients with Hyperparathyroidism****Amarjargal Eldev-ochir** , Saruultuvshin Adiya

Department of Internal Medicine-Nephrology, UB Hospital, Mongolia

Objectives : Introduction: Anemia is a frequent complication in patients undergoing hemodialysis, contributing to fatigue, decreased quality of life, and increased morbidity. Secondary hyperparathyroidism, characterized by elevated parathyroid hormone (PTH) levels, may impair erythropoiesis through bone marrow fibrosis or altered iron metabolism. However, the independent impact of PTH on anemia in hemodialysis patients remains unclear.

Methods : Methods: In this cross-sectional study, 110 adult hemodialysis patients (mean age 56.6 ± 12.1 years) were recruited. Patients were classified according to serum PTH levels: high PTH (>300 pg/mL, n=71) and normal PTH (≤300 pg/mL, n=39). Anemia was defined as hemoglobin <110 g/L. Dialysis adequacy was evaluated using Kt/V and urea reduction ratio (URR). Additional laboratory data, including serum alkaline phosphatase, were recorded. Statistical analyses were performed using SPSS, including descriptive statistics, independent t-tests, Chi-square tests, and correlation analyses. Statistical significance was defined as $p < 0.05$.

Results : Results: The mean hemoglobin of the cohort was 104.6 g/L. High PTH patients had hemoglobin of 104.9 ± 15.3 g/L compared with 104.0 ± 14.9 g/L in normal PTH patients ($p=0.78$). The prevalence of anemia was 55.6% in the high PTH group and 62.5% in the normal PTH group ($\chi^2=0.26$, $p=0.60$). Alkaline phosphatase levels were significantly elevated in high PTH patients (145 ± 60 vs. 112 ± 45 U/L, $p=0.01$). No significant correlations were observed between PTH and hemoglobin, Kt/V, or URR.

Conclusions : Conclusions: Anemia is common among hemodialysis patients, regardless of PTH levels. Although elevated PTH is associated with higher alkaline phosphatase, it does not correspond to lower hemoglobin or increased anemia prevalence in this cohort. These findings suggest that secondary hyperparathyroidism may not independently drive anemia in hemodialysis patients. Further large-scale studies with multivariate analyses are warranted to clarify the role of PTH in anemia and to guide individualized management strategies.

Screenshot 2026-03-11 at 10.19.53(2).png

Results:

Table 1. Prevalence of Anemia by PTH Group

PTH Group	n	Hb (g/L), mean ± SD	Anemia (% of group)
High PTH (>300 pg/mL)	71	104.9 ± 15.3	55.6%
Normal PTH (≤300 pg/mL)	39	104.0 ± 14.9	62.5%