



Abstract Type : Oral presentation

Abstract Submission No.: A-0516

Abstract Topic : Non-dialysis CKD

Roxadustat impact on anemia correction in Chronic kidney disease

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Objectives : This study evaluates the effects of Roxadustat on hematological parameters, kidney function, and electrolyte balance in CKD patients over six months, comparing those receiving treatment with a control group.

Methods : This prospective, observational cohort study included 67 participants, divided into a treatment group (n=27) with hemoglobin (Hb) levels below 10 g/dL receiving Roxadustat and a control group (n=40) with Hb levels above 10 g/dL receiving standard CKD management. Data were collected at baseline, 3rd month, and 6th month, assessing changes in hematological parameters, kidney functions, and electrolytes. Repeated-measures ANOVA was used to analyze effects, with $p < 0.05$ considered significant. Data was analyzed with statistical software SPSS, version 25.

Results : Roxadustat significantly increased hemoglobin levels ($p = 0.001$) and RBC count ($p = 0.009$), indicating effective anemia management. However, serum creatinine levels significantly increased in the treatment group ($p < 0.001$) compared to the control group, suggesting possible renal function decline. No significant drug effect was observed in other parameters ($p > 0.05$).

Conclusions : Roxadustat effectively improves anemia in CKD patients but its impact on renal function remains uncertain, as creatinine levels showed to increase significantly in the treatment group compared to control group. Further long-term studies are needed to clarify its safety and efficacy, particularly regarding its effect on kidney function and overall patient outcomes.