

Evaluation of the Relationship between oral Cinacalcet in Inflammation (CRP) and Anemia in Hemodialysis Patients with Secondary Hyperparathyroidism

Abstract

Background: Cinacalcet is one of the newest calcium mimetic drugs in the treatment of patients with parathyroid cancer, secondary hyperparathyroidism in adults with chronic kidney disease. Due to the possible association between the effect of Cinacalcet on CRP (C Reactive Protein) and the pathophysiology of anemia in ESRD (End Stage Renal Disease) patients, we evaluate the results of oral Cinacalcet on CRP and anemia in hemodialysis patients with secondary hyperparathyroidism.

Aim: To determine the results of oral Cinacalcet therapy on CRP and anemia in hemodialysis patients with secondary hyperparathyroidism

Methods and material: In this study, all hemodialysis patients over 18 years old who underwent hemodialysis for at least 6 months that despite maximal phosphorus-reducing and rocaltrol treatment still had serum phosphorus greater than 5.5 mg / dl , serum calcium greater than 8 mg / dl , serum PTH were above 600 pg / dl ,and with secondary hyperparathyroidism diagnosis treated with Cinacalcet,were entered in study. The dose of receiving Eprex wasn't changed at the beginning and end of the study. The number of patients was 40. All records of these patients were reviewed , the levels of hemoglobin ,Ca , P (every month), PTH, ferritin, TIBC, iron, CRP (every three months) before the start of treatment , according to the routine dialysis ward were repeated and were recorded in the files.In the demographic information checklist , Age, sex, underlying disease, duration of dialysis , duration of use and dose of cinacalcet were entered. The results of these experiments were reviewed and analyzed before and after treatment with cinacalcet.

Results: The findings of the current study reveal that the treatment with oral cinacalcet induced a significant increase in serum hemoglobin($P<0.05$).Although the treatment reduced the level of serum CRP,this reduction wasn't statistically significant.

Conclusion: Treatment with Cinacalcet in hemodialysis patients with secondary hyperparathyroidism, at least in this study, increased serum hemoglobin and decreased the level of serum CRP. It could be a hypothesis for large analytical studies.

Keywords: Cinacalcet , Inflammation , Anemia , Hemodialysis , Secondary Hyperparathyroidism