

Treatment with cinacalcet decreases serum free testosterone concentration in male hemodialysed patients with chronic kidney disease and secondary hyperparathyroidism

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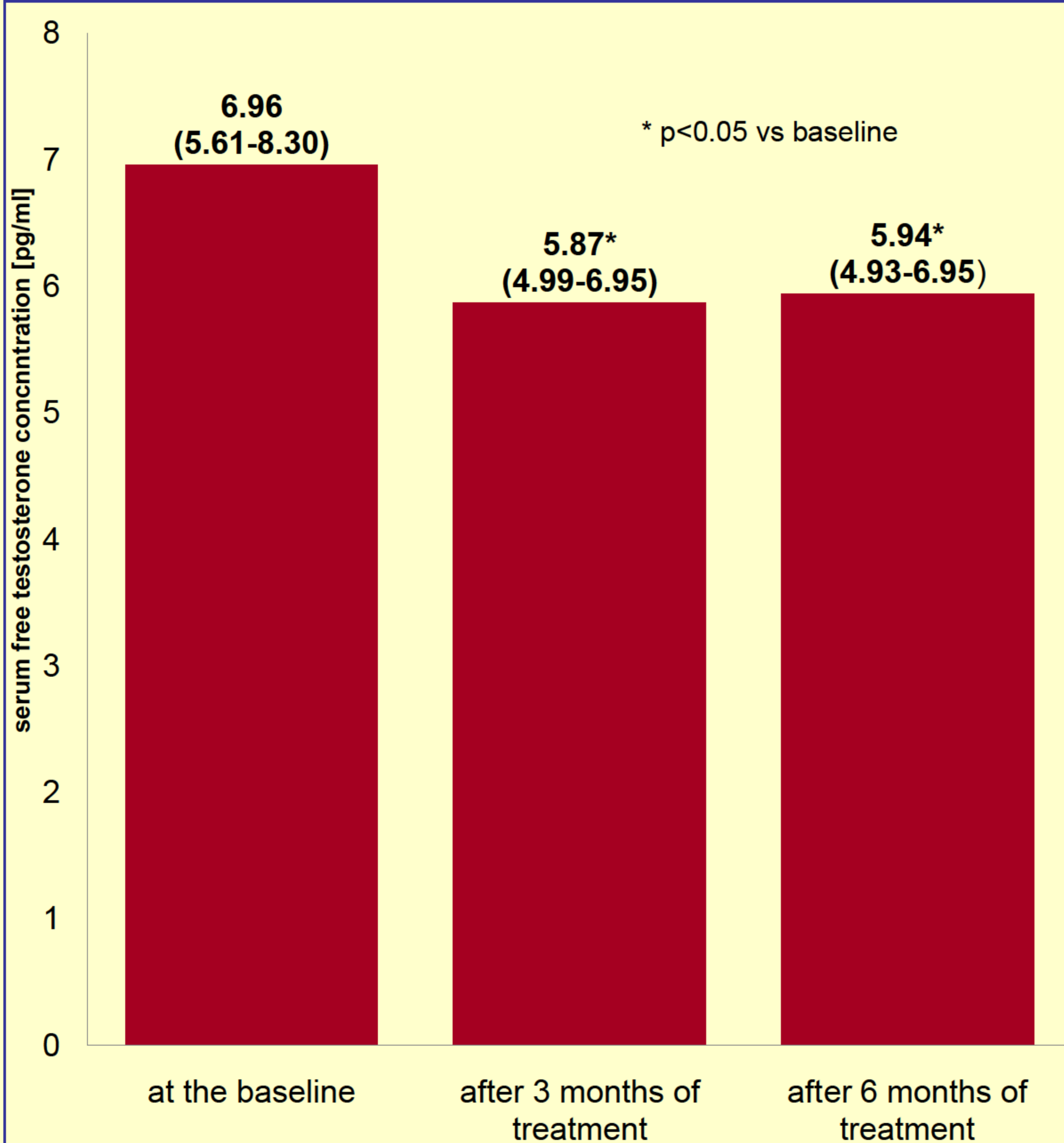
BACKGROUND

Calcium receptor (CaR) is expressed, among others in testis. Cinacalcet binds to the CaR, increases sensitivity of CaR to serum calcium and is widely used in the treatment of secondary hyperparathyroidism (sHPT) in hemodialysed patients with chronic kidney disease (HDP). In most male HDP, serum testosterone concentrations are low. The aim of this study was to assess the influence of six-month treatment with cinacalcet on the serum free testosterone concentration in male HDP with sHPT.

METHODS

In 40 male HDP, 49.8 (45.3-54.2) years old, with sHPT (PTH>300 pg/ml), serum PTH and free testosterone concentrations were assessed before the first dose of cinacalcet and then after 3 and 6 months of treatment. Wilcoxon matched pairs test and Spearman test were performed. Results were shown as means with 95% confidence index.

RESULTS



In the 35 patients who completed the study cinacalcet treatment significantly decreased serum PTH from 1106 (805-1407) at the baseline, to 781 (475-1086) after 3 month of treatment (p=0.002), and to 605 (298-912) pg/ml; p<0.0001 after 6 months of treatment. Such treatment also decreased significantly serum free testosterone concentration from 6.96 (5.61-8.30) to 5.87 (4.99-6.95); p<0.05 and to 5.94 (4.93-6.95) pg/ml; p<0.05, respectively. There were no significant correlations between changes of serum free testosterone concentration and changes of serum PTH, calcium and phosphate concentration and cinacalcet dose, respectively.

CONCLUSION

Treatment with cinacalcet decreases serum free testosterone concentration in male hemodialysed patients with chronic kidney disease and secondary hyperparathyroidism.

