COMPARATIVE STUDY BETWEEN THE IMPACT OF DIFFERENT TREATMENTS OF SECONDARY HYPERPARATHYROIDISM (PARACALCITOL,ALFACALCIDOL,CINACALCET IN COMBINATION WITH LOW-DOSE ALFACALCIDOL, CINACALCET IN COMBINATION WITH PARACALCITOL) ON FGF-23, TESTOTERONE, PTH, CA AND P IN DIALYSIS PATIENTS

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Objectives

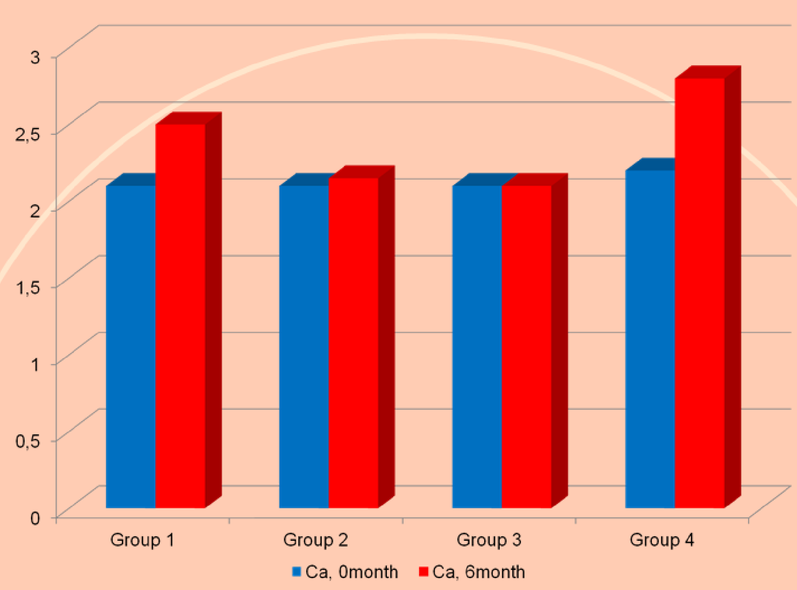
It is known that FGF 23, PTH, P and Ca directly correlate with mortality, but testosterone inversely. Application of vitamin D analogs increase Ca,P, FGF 23 and testosterone, on the contrary cinacalcet can reduce FGF23, Ca , P and testosterone. Both medicines decrease PTH.

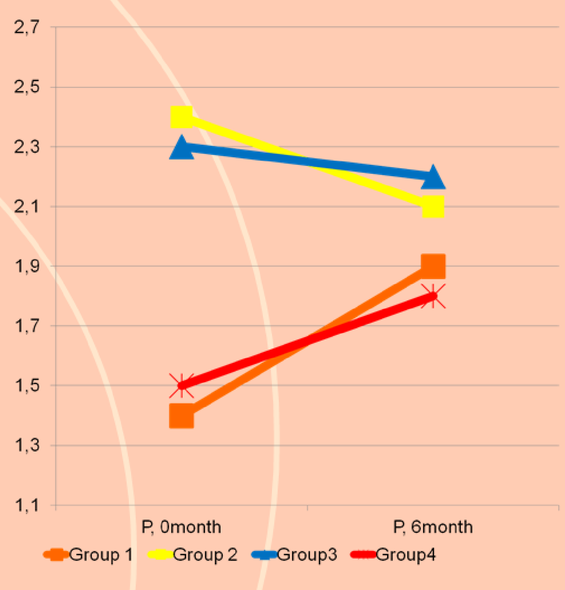
Methods

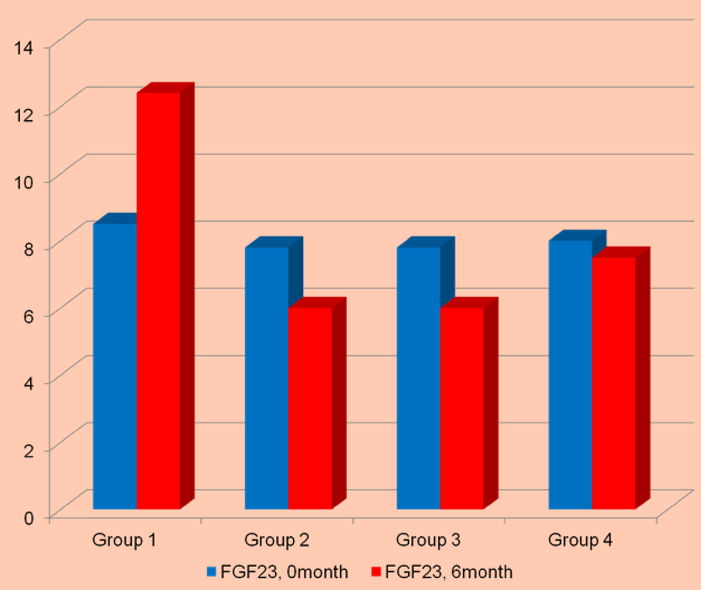
We analysed 75 hemodialysis patients. The enrolled subjects were with iPTH >300 pg/ml. In groups which were treated vitamin D analogs serum P was less then 1,8 mmol/l. We selected 4 groups of dialysis patients with secondary hyperparathyroidism who were treated for up to 6 months: Group 1: 20 patients were treated alfacalcidol in the stable dose of 0.5μg/day; Group 2: 20 patients were treated with cinacalcet in the stable dose of 30.0 mg/day and alfacalcidol in the dose of 0.25 μg/day; Group 3: patients (n=20) were treated with cinacalcet in the stable dose of 30 mg and paricalcitol in the stable dose of 2 μg/day; and Group 4: patients (n=15) were treated paricalcitol in the stable dose of 15μg a week . Groups were matched for age, gender, time on dialysis. The control group consisted of 15 healthy subjects.

Results

Initial PTH was not significantly different in patients (657,3±284,5; 678,9±276,2; 647,4±271,2 and 582,7±284,9 pg/ml, respectively). After 6 months PTH significantly decreased (p‹0,01) in all groups, but more considerably in 3 group (-62,4%). In 1 group (-8%), in 2 group (-15,9%.), in 4 group (- 39%). Ca and P significantly increased in groups which were treated with alfacalcidol or paricalcitol, without cinacalcet. P decreased in 2 group (cinacalcet + alfacalcidol), but did not change in 3 group (cinacalcet + paricalcitol) . FGF 23 significantly decreased only in groups which were treated with cinacalcet. FGF 23 even increased in 1 group,and did not change in 4 group . Testosterone did not significantly change in all groups. PTH, Ca, P, testosterone were normal values and FGF 23 was minimal amount (4,2±2,0 pg|ml)in control group. Parameters of patients were shown in table 1, (note * - p<0,01 between 0 and 6 months).







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Conclusions

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H) Clinical Nephrology, CKD. H4) Bone disease in CKD 1-5.
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