VITAMIN D STATUS IN INCIDENT PERITONEAL DIALYSIS PATIENTS AND THE EFFECTS OF ORAL SUPPLEMENTATION

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INTRODUCTION

Vitamin D (vit D) deficiency is highly prevalent in uremic patients and normalization not always achieved despite oral vit D supplementation.

METHODS

In a cohort of 37 patients (22 males) aged 64 ± 15 yrs, started on peritoneal dialysis September 2009 through December 2012, we evaluated:

- ✓ vit D status, as serum levels of 25(OH)D3
- ✓ the effects of oral supplementation.

Following chemistries were measured at baseline and after treatment:
25(OH)D3, serum calcium and phosphate, alkaline phosphatase, intact PTH (iPTH).
Pre-albumine, as an index of the nutritional status.
Supplementation was carried out by using either weekly cholecalciferol or daily calcifediol.
Deficiency or insufficiency were defined as 25(OH)D3 lower than 15 ng/mL or between 15 and 30 ng/mL, respectively.

RESULTS

Table 1 reports vitD status both at baseline and after treatment.
It is shown that only few patients were in normal range at baseline. Upon treatment 69% achieved sufficiency, but deficiency (9%) or insufficiency (22%) still occurred.

25OH VitD (ng/mL)	**< 15**	**> 15 < 30**	**> 30**
Baseline (%)	76	10	14
Upon treatment (%)	9	22	69

Table 1 VitD status at baseline and after treatment

No gender differences were seen.
There were significant relationships of vitD with both age (Figure 1) and nutritional status (Figure 2).
The addition of oral vit D yielded a significantly decrease in iPTH (p=0.03) independently of the use of other medications (Figure 3).

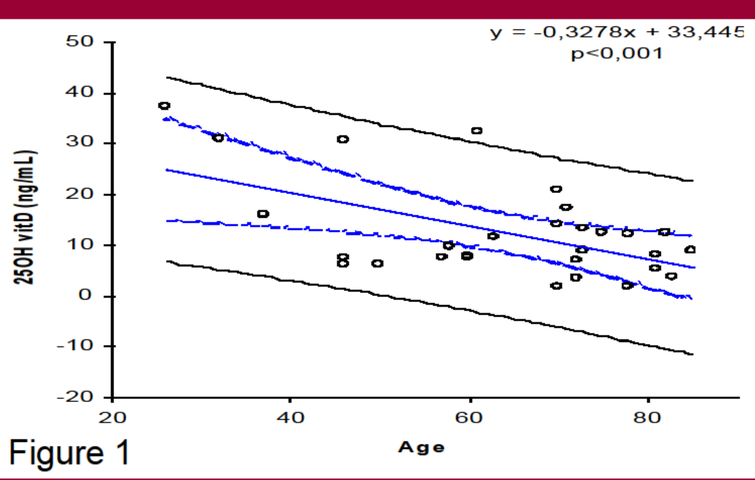

Figure 1

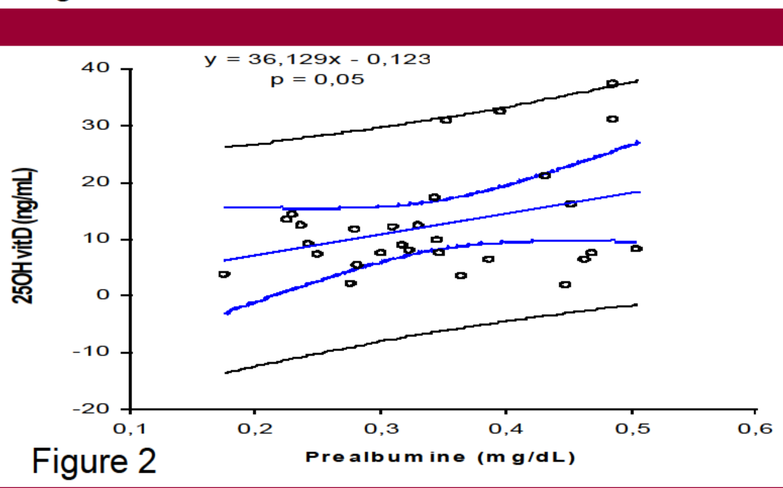

Figure 2

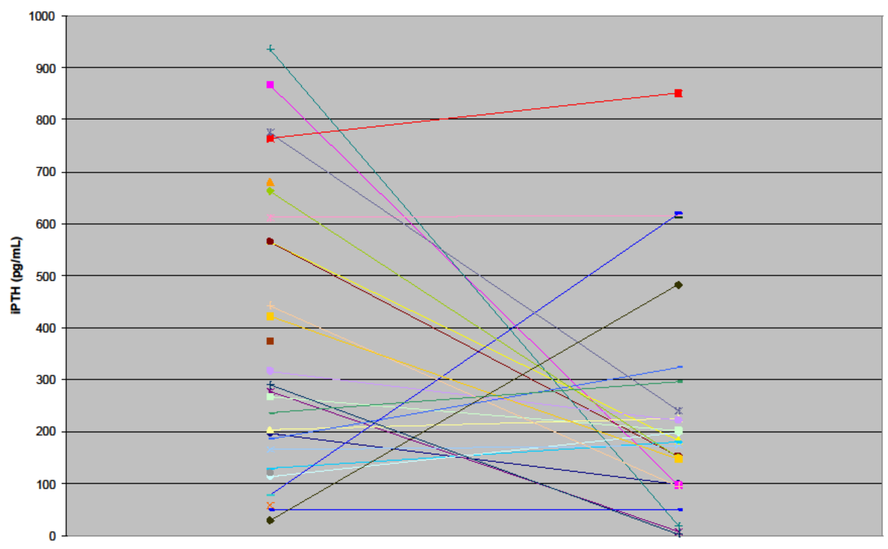

Figure 3 iPTH levels at T0 and T1

CONCLUSIONS

This study, performed in a subset of uremic patients started on peritoneal dialysis, confirms that vit D status is most often altered, more severely in older and malnourished patients.
Oral supplementation allowed normalization in most but not all patients.
25(OH)D3 per se is able to decrease iPTH levels.

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