OBJECTIVES

We aimed to find if there is any relationship between vitamin D levels and clinical, laboratory parameters and osteoporosis, in primary hyperparathyroidism (PHPT).

METHODS

128 patients with PHPT and 30 patients as a control group were analyzed. Patients with PHPT were grouped due to vitamin D levels and levels low than 20 μg/ml accepted as deficiency.

RESULTS

Patients with 25-OH vitamin D <20 μg/L were younger (p=0.043). Also they were more obese; Body mass index (BMI) ≥30 (p=0.18) and more hypertensive (p=0.032). Metabolic syndrome (MS) incidence was higher in the patients with 25-OH vitamin D levels < 20 μg/L. Also, fasting blood glucose, cholesterol levels, triglyceride (TG), glomerular filtration rate (GFR), TSH, free T4, parathormone (PTH), Calcium, 24 hour urinary calcium and neutrophil / lymphocyte ratio were similar. There was no significant difference in the incidence of nephrolithiasis, osteoporosis and parathyroid adenoma size between the groups. Thyroid nodule incidence was 6 times higher in the PHPT. And MS incidence was higher (%32.8) in PHPT (p=0.042). 25-OH vitamin D was found to be associated with age, BMI, thyroid volume and triglyceride level in regression analyses. T scores were better in the obese group and in patients with MS.

CONCLUSIONS

25-OH vitamin D levels may be an indicator of hypertension and metabolic syndrome in PHPT. It also may be used as a treatment target in the severe disease. Bone mineral density may not reflect severity in patients with metabolic syndrome.

REFERENCES