

Calcium and vitamin D metabolism among patients with excess of weight of a docent clinic in Salvador Bahia Brazil.

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Topic: Calcium and vitamin D metabolism

INTRODUCTION

Hypovitaminosis D is a biochemical change with high prevalence among the population, especially in obese patients. Its function more known relates to bones metabolism, although recently, many functions have been described.

OBJECTIVES

Describe the prevalence of vitamin D deficiency and evaluate calcium, phosphorus and parathormone metabolism between women with excess of weight followed in an obesity clinic of reference in Salvador-BA.

METHODS

A descriptive cross-sectional study, which included women over 18 years old with body mass index (BMI) equal or superior of 25 kg/m². Anthropometric measurements were obtained: weight, height, BMI, waist circumference, hip circumference; presence of hypertension and / or metabolic syndrome were obtained by analysing the charts of patients in the study. The criteria for diagnosing hypovitaminosis D was established according to The Brazilian Society of Endocrinology and Metabology - levels ≤ 20ng/dL means deficiency, 21-29ng/dL are considered insufficiency and levels between 30ng/dL and 100ng/dL are normal(1).

RESULTS

Table 1. Anthropometric profile of the patients in study. Bahia, 2015.

	Average
Age (years)	43.1±11.6
IMC (kg/m ²)	37.1±6.5
Abdominal circumference (cm)	109.3±13.1
Waist / hip ratio	0.86±0.09

Source: ADAB

REFERENCES

1. Maeda SS, Borba VZC, Camargo MBR, Silva DMW, Borges JLC, Bandeira F, et al. Recomendações da Sociedade Brasileira de Endocrinologia e Metabologia (SBEM) para o diagnóstico e tratamento da hipovitaminose D. Arq Bras Endocrinol Metabol [Internet]. 2014 Jul [cited 2014 Oct 1];58(5):411–33. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0004-27302014000500411&lng=pt&nrm=iso&tlng=en

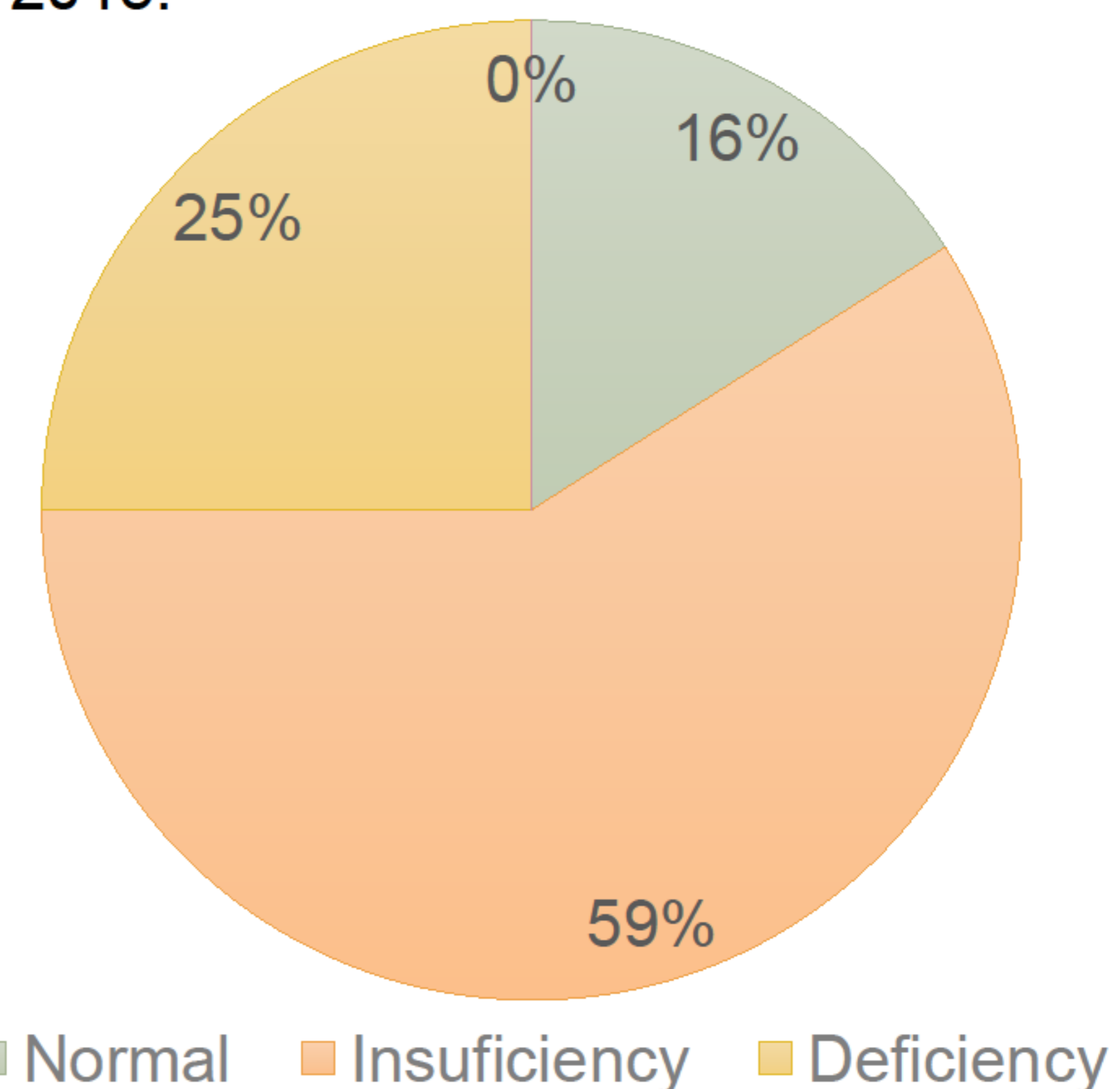
The prevalence of obesity was 89.3%; 59% of the population were hypertensive and 20% diabetics. The mean of the level of vitamin D was 23.5±6ng/dL.

Table 2: Profile of the level os the variables related to bone metabolismo in the group of overweight and obese patients. Bahia, 2015.

Variable	Overweight	Obesity	P value
Vitamin D (ng/dL)	26.89±7.47	23.13±5.70	0.100
PTH (mg/dL)	41.69[26.4-37.4]	63.32[26.4-37.4]	0.030
Calcium (mg/dL)	10.13±0.8	9.45±0.70	0.052
Phosphorus (mg/dL)	3.88±0.36	3.86±0.51	0.840

Source: ADAB

Graph 1: Profile of vitamin D level between the patients in study. Bahia, 2015.



Source: ADAB

It was observed an inverse correlation between BMI and the levels of vitamin D (p=0.04).

CONCLUSIONS

The prevalence of hypovitaminosis among patients with excess of weight is higher than in the general population. There is an inverse correlation between the levels of vitamin D and BMI.

