[P1-463] Evaluation of Calcium and Vitamin D Intake and Biochemical Parameters of the Bone Metabolism in Patients with Idiopathic Short Stature.

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The physiological growth is a sensible indicator of the child s health and the result of the interaction of many factors including the nutritional deficiencies (1). The inadequate intake and reduced absorption of calcium (Ca) and vitamin D (VitD) can cause rickets, as well as, short stature (ISS) and deficient growth (2). **Objective:** Evaluate the consumption of Ca and VitD and biochemical factors involved in the bone metabolism in patients with ISS. Establish a correlation between 24h urine excretions, biochemical blood analysis and the intake of this diet elements to determine the best indicators for use in clinical practice. **Methods:** 42 children and adolescents with ISS had been evaluated in a cross-sectional study in the Outpatient Clinic of Short Stature of the Endocrine Division of HCPA, Brasil. In these patients organic, genetic and endocrine causes of ISS was excluded by routine prospective evaluation and submitted to the protocol: clinical examination; biochemical analysis of blood (Ca, phosphorus (P), VitD, creatinine, PTH, serum alkaline phosphatase); 24h urine (Ca, P, creatinine and sodium); and dietary records in which the portions of foods had been mensure and calculated, stipulating the dietary consumption of Ca and VitD. **Results:** From patients evaluated, 95% had VitD and 97% Ca intake below the recomended for they age **(Tab 1)**. Significative correlation was observed between VitD intake (UI/d) and PTH (pg/ml) and Ca excretion in the 24h-u/Kg. Significative correlation was observed between Ca intake (mg/d) and PTH, Ca excretion in the 24h-u/Kg, Ca excretion in the 24h-u (mg/24h), P excretion in the 24h-u (mg/24h) and Ca Excretion Index (CEI)**(Tab 2)**. **Conclusions:** Our data demonstrate high prevalence of low intake of Ca and VitD in patients with ISS causing biochemical and hormonal repercussion. These disturbances can be involved in the growth retardation and the gain of the bone mass of these patients.

Daily average values for the intake of Ca and VitD and the values recommended

Variable	Age (y)	Mean±SD	DRI*
Ca Intake (mg/d)	4-8	561,7±82,1	800
	9-18	585,2±45,9	1.300
VitD (UI/d)	4-18	86±9,6	200

** Dietary Reference Intakes

Correlation between the variables

Intake	Biochemical	r*	p**
VitD Intake (UI/d)	PTH (pg/ml)	-,44	<,01
	Ca 24h-u/Kg	,33	<,05
Ca Intake (mg/d)	PTH (pg/ml)	-,55	<,001
	Ca 24h-u/Kg	,38	<,05
	Ca 24h-u (mg/24h)	,47	<,01
	CEI	,35	<,05
	P 24h-u (mg/24h)	,40	<,01

* Pearson Correlation **Level of significance

(1) Lebl J et al., Cas Lek Cesk 1995; 22;134(6):166-9

(2) Rosenbloom AL &Vilar L; End Clin 2006.