

IS VITAMIN D IMPORTANT PLAYER IN HEPATOSTEATOSIS IN CHILDHOOD OBESITY ?

Elif Ozsu, Feyza Nur Topçu, Derya Acar Tepe
Samsun Obstetrics and Children Hospital, SAMSUN, TURKEY

Introduction

- Childhood obesity is one of the most serious public health problem.
- Obesity-related complications such as hepatic steatosis or type 2 diabetes can now be monitored even during early childhood.
- There are little data regarding the relation between vitamin D and Pediatric Nonalcoholic fatty liver disease
- The aim of the study was to examine the relationship between vitamin D levels and obesity with hepatosteatosi s in children

Objectives

Methods

A total of 128 children with obesity were included in this study.

Hepatosteatosi s (HS) was diagnosed using ultrasonography.

Hepatosteatosi s was graded.

25 hydroxyvitamin D, calcium, phosphate, alkaline phosphatase, parathormone, serum lipid level, glucose and insulin level were measured.

Data were analyzed using 2 categories; obesity with HS and obesity without HS.

Table 1: Mean serum levels of 25 OH D vit, pth uric acid, TG, LDL and ALT levels in two Groups

	Group1(without HS n 78)	Group2(with HS n 50)	p
AGE (years)	11,7 ±3	12,5 ±2,8	>0,05
BMI	28± 4,6	31 ±5,6	<0,05
TRIGLISERID(mg/dl)	103± 41	135± 78	<0,05
LDL(mg/dl)	100± 28	102± 30	>0,05
URIC ACID (mg/dl)	4,9± 1	5,4± 1,3	<0,05
25 OH VIT-D	12± 5,6	11± 5,7	>0,05
AST(iu/ml)	20 ±5,9	23± 9,3	>0,05
ALT(iu/ml)	18± 9	28± 20	<0,05
PTH (pg/ml)	46± 33	42 ±15	>0,05
HOMAIR	3,7± 2,9	4,8 ±2,9	>0,05

Results

A total of 128 children were studied. In our study group 42 % was male and the mean age 12,1±3,1 (range 4-18 years)

Hepatosteatosi s was identified in 39% (n: 50) There was a high prevalence (122/128 95%) of vitamin D deficiency or insufficiency; however, there were no significant associations between vitamin D level and HS. Uric acide, ALT, trigliseride level were significantly different in two groupes(Table 1)

Conclusions

There is a high prevalence of vitamin D deficiency and insufficiency in children with HS however, no association was found between vitamin D deficiency and HS.

