

BMI 32,7±5,3 kg/m²; group 2- normal-weight control (n=35, B/G=17/18, 14,08±2,47 yrs (p=0,3), 19,4±2,4 kg/m² (p=0,0001)).

Results: Legs BMD were increased in boys with obesity (0,94±0,11g/cm² vs 1,13±0,17g/cm² (p=0,03)) compared to control group without significant differences in G (1,29±0,12g/cm² vs 1,23±0,02g/cm² (p=0,5)).

Ribs BMD were higher in group 1 children compared to group 2 (B 0,72±0,08 g/cm² vs 0,59±0,06 g/cm² (p=0,02); G 0,71±0,05 g/cm² vs 0,65±0,06 g/cm² (p=0,05)).

There were no significant differences in spine BMD (G 1,09±0,11 g/cm² vs 0,98±0,14 g/cm² (p=0,084), B 1,0±0,11 g/cm² vs 0,87±0,24 g/cm² (p=0,39)); pelvis (G 1,22±0,13 g/cm² vs 0,98±0,14 g/cm² (p=0,12); B 1,19±0,15 g/cm² vs 1,04±0,21 g/cm² (p=0,09)); total (G 1,18±0,09 g/cm² vs 1,11±0,13 g/cm² (p=0,29); B 1,17±0,13 g/cm² vs 1,06±0,14 g/cm² (p=0,21)) in obese children compared to control.

A significant decrease in vitamin D levels were in obese B compared to control (29,48±4,7ng/ml vs 33,41±2,1ng/ml (p=0,05)); G (24,59±5,7 vs 34,41±3,2 ng/ml (p=0,04)).

Conclusions: A significant increase in ribs and legs BMD and decrease in vitamin D levels were found in children with obesity.

P3-P047

Evaluation of Bone Mineral Density and Bone Metabolism Markers in Children Diagnosed as Celiac Disease

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Introduction and aim: Metabolic bone disorders due to calcium and vitamin D deficiency are one of the most frequent extra-intestinal symptoms in Celiac disease. In this study it is aimed to evaluate bone mineral density in patients with Celiac disease during diagnosis and evaluate the factors related to bone mineral metabolism.

Material and Method: The study included 43 children diagnosed as Celiac disease between December 2015 and December 2017. Clinical, anthropometric, pathological and laboratory (calcium, phosphorus, alkaline phosphatase (ALP), parathormon (PTH), 25OHvitamin D levels) properties of patients were detected retrospectively. Lumbal (L1-L4) bone mineral density levels measured via DEXA (Dual Energy X-Ray Absorptiometry) were evaluated and Z scores due to chronological age and height age were calculated.

Results: Mean age of 43 patients (34 girl/9 boys) was 9.9±4.8 (2.5-17.7) years. 46.5% of patients were pubertal during diagnosis. 30.2% (n=13) was 0-6 years old, 30.2% (n=13) was 7-11 years and 39.5% (n=17) was over 11 years. BMD Z score due to chronological age was -0.83±1.1 (-3.6-1.6) and -0.18±1.1 (-3.6-1.8) due to height age. There were no difference in BMD Z scores due to chronological and height ages (p=0.150, p=0.225, respectively). BMD Z scores due to chronological age was >-1 in 51.2% of the patients (n=22),

between -1 and -2 in 34,9% (n=15) and <-2 in 14% (n=6). BMD Z scores due to chronological age <-2 in over 11 age was statistically high (p<0.001). Mean vitamin D level was 13.5±7.7 (4.6-35.1)ng/ml and no relation between BMD Z scores and plasma vitamin D, Ca, P, ALP and PTH levels (p>0.050). There was positive correlation between BMD Z scores due to chronological age and body weight, height and BMI Z scores (p<0.001, p=0.005, p=0.015, respectively).

Conclusion: Higher diagnose ages effects bone mineral density negatively in Celiac disease. Diagnose in early ages decreases bone mineral leak and decreases morbidity in patients with osteopenia and osteoporosis via treatment possibilities.

P3-P048

Comparison of Serum 25-Hydroxy Vitamin D Levels Among Children & Adolescence with Attention Deficit Hyperactivity Disorder and Healthy Iranian People

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Background: Attention Deficit Hyperactivity Disorder (ADHD) is the most prevalent chronic behavioral disorder among children. No definite pathology is yet defined for this disorder and findings are in favor of multifactorial hypothesis.

Aims: This study was performed with the aim of determining the association between vitamin D serum levels and ADHD among 6-14 year-old children referring to Imam Khomeini Hospital Complex during 2014-2015 in Tehran, Iran.

Measurements & methods: This case-control study was performed on 50 healthy and 50 ADHD children. Data was collected in a researcher-made questionnaire. 25-Hydroxy vitamin D levels were measured and documented. Data was analyzed using Chi-square test, independent T-test and Regression by SPSS 19 software.

Results: Mean 25-Hydroxy vitamin D level was 16.57±9.09 ng/ml among ADHD patients and 22.24±12.76 among healthy children. Mean 25-Hydroxy vitamin D level was significantly lower among the case group compared to the control group (p=0.012). Severe Vitamin D deficiency was significantly more prevalent among the case group (p=0.0001). Adequate 25-Hydroxy vitamin D level was significantly more prevalent among the control group (p=0.002)

Conclusion: Hypovitaminosis D is more prevalent among Iranian ADHD children compared to healthy ones. It seems that Hypovitaminosis D is associated with ADHD symptoms as an independent background variable.

Keywords: Vitamin D Deficiency; Attention Deficit Hyperactivity Disorder; Children & adolescence.