

عنوان مقاله:

Evaluation of Vitamin D Deficiency and Its Relationship with Body Mass Index in Children ۱ To ۱۶ Years

محل انتشار:

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خلاصه مقاله:

Introduction: Body weight gain in children and teenagers is one of the major challenges that cause undesirable health outcomes. Simultaneously with the prevalence of overweight and obesity, children and adolescents are diagnosed with ۲۵-hydroxyvitamin D (۲۵(OH)D) deficiency in different sides of the world. The present study aimed to assess ۲۵(OH)D status among Iranian volunteers aged ۱-۱۶ years and find the correlation between ۲۵(OH)D status and body mass index (BMI) subjects. Material and Methods: The total volunteers included ۸۰۷ Iranian children aged ۱ to ۱۶ referred to the general and endocrinology clinics in Babol city, Mazandaran Province. A trained physician determined anthropometric characteristics. Serum levels of calcium (Ca), phosphate (P), creatinine (Cr), urea, thyroxine (T₄), thyroid-stimulating hormone (TSH), and ۲۵(OH)D were assessed in all children. Results: ۲۵.۲۷% of the children were ۲۵(OH)D deficient, and ۵۹.۱% were insufficient. There was no significant difference in serum ۲۵(OH)D level between girls and boys ($P=۰.۱۳$). A significant negative correlation was found in serum ۲۵(OH)D level with weight ($P=۰.۰۰۰$, $r=-۰.۱۲$), BMI ($P=۰.۰۰۰$, $r=-۰.۱۳$), and age ($P=۰.۰۰۰$, $r=-۰.۱۳$). Conclusion: These data displayed that ۲۵(OH)D insufficiency is highly prevalent among children in the north of Iran. Serum ۲۵(OH)D levels are affected by age and BMI value. Improving vitamin D deficiency helps to maintain the health of children and adolescents during this critical period.

کلمات کلیدی:

Body Mass Index, Children, Obesity, Vitamin D

