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The Role Of Vitamin D Deficiency In Obesity

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Vitamin D deficiency, one of the most common vitamin deficiencies, is associated with many chronic diseases including obesity [1]. There are many studies examining the link between vitamin D deficiency and obesity [2,3]. In these studies, it is reported that vitamin D deficiency triggers the serum calcium level and increases serum parathyroid hormone level [2,4,5]. Increased parathyroid hormone activity leads to increased calcium entry into fat cells, leading to lipolysis suppression and increased lipogenesis [2,4]. It is also reported that hyperparathyroidism, which results in vitamin D deficiency, may be associated with body weight gain [5]. Another possible mechanism is that deficiency of vitamin D may increase the risk of obesity and metabolic syndrome by causing insulin resistance [5,6]. It has been reported that the majority of these studies have a positive relationship between vitamin D deficiency and obesity development [2,7]. In a study by Vimala et al. (2013) evaluating the data of 42,024 people, the relationship between vitamin D deficiency and body mass index was assessed. Increased body mass index at the end of the study was associated with deficiency of vitamin D [8]. Another study in which serum vitamin D levels were assessed by participants aged between 20 and 35 with 13 obese and 13 normal body weights revealed that serum vitamin D levels were lower in obese participants than in those with normal body weight ($p < 0.05$) [9]. In studies investigating the D vitamin levels of 58 obese individuals, it was determined that the lack of vitamin D was statistically significant with increasing body mass index without significant effect on parathyroid hormone ($p < 0.05$) [7]. In conclusion, vitamin D deficiency may be one of the risk factors of obesity development with many different mechanisms mentioned. In the treatment of obesity, determination of serum vitamin D levels and elimination of deficiencies can help the treatment plan.

Biography:

Mehmet Arif İÇER was born in Turkey in 1990. He has successfully completed the department of nutrition and dietetics at Erciyes University. He is continuing his graduate education at Gazi University. He worked at various international congresses. He has published a different poster report called "Kidney Stone Formation: Cranberry Fruit", "Can Bitter Melon be Used in the Treatment of Diabetes Mellitus?", "In The Role of Caffeine Intake in Kidney Stone Formation", "the role of vegetable / fruit consumption in kidney stone formation".

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