

## پنجمین **کنگرد**





## کنگره پیشمگیری و درمان چاقی ایران با تمرکز بر کودکان و نوجوانان و تکیه بر ورزش و تغذیه به عنوان عوامل پیشگیری تهران، مرکز همایشهای بیمارستان میلاد، سالن غرضی

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# پوستر همایش:



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با تمرکز بر کودکان و نوجوانان و تکیه بر ورزش و تغذیه به عنوان عوامل پیشگیری تهر ان، مرکز همایشنهای بیمارستان میلاد، سالن غرضنی

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# Effect of Serum Calcium and Phosphorus Concentration on Obesity (Case study: Mashhad Population)

Zahra Jafari Giv', Majid Ghayour Mobarhan', Farshid Hamidi'

#### **Abstract:**

**Introduction:** Serum calcium and phosphorus are essential biochemical markers in understanding the pathophysiology of bone health that are affected by several factors. The prevalence of obesity is increasing in many countries and is associated with serious complications. Obese people due to consumption of food with high calories and low nutritional value may be at risk of nutritional deficiencies, so the purpose of this study is to understand the effect of obesity on serum calcium and phosphorus.

**Methods:** Serum samples from  $\mathfrak{I} \cdot V$  healthy individuals aged from  $\mathfrak{I} \in \mathfrak{I}$  years living in Mashhad ( $\mathfrak{I} \in \mathfrak{I}$  men and  $\mathfrak{I} \in \mathfrak{I}$  women) were collected and calcium and phosphorus were measured. Body mass index (BMI) was calculated as body weight (kg) divided by squared height in meters (m\tau). In order to investigation of association between obesity and serum calcium and phosphorus, the samples were classified into two groups including  $\mathfrak{I} \in \mathfrak{I}$  normal people and  $\mathfrak{I} \in \mathfrak{I}$  obese people (BMI higher than  $\mathfrak{I} \cdot V$ ). Data were calculated using SPSS V. $\mathfrak{I} \cdot V$  software.

**Results:** The mean  $\pm$  SD of BMI was significantly higher in women than men. There was significant association between BMI and serum calcium among groups (P<···°) that show the lower amount of serum calcium in obese people. But no significant association was found between serum phosphate levels and obesity.

Conclusion: With regarding to studies that show a high-calcium diet produces weight loss, it seems that lower amount of serum calcium might be one of the causes of obesity in this study; therefore an interaction between calcium level and obesity may be important.

#### **Keywords:**

Obesity; BMI; Calcium; Phosphorus; Mashhad

<sup>\</sup>Student of Veterinary Medicine, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad, Mashhad, Iran

YBiochemistry of Nutrition Research Center, School of Medicine, Mashhad University of Medical Sciences, Mashhad Iran

<sup>&</sup>quot;Section of Physiology, Department of Basic Sciences, Faculty of Veterinary Medicine, Ferdowsi University of Mashhad, Mashhad, Iran: farshidhamidi@um.ac.ir