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Document type

Article • Gold Open Access • Green Open Access

Source type

Journal

ISSN

18579655

DOI

10.3889/oamjms.2022.9282

Publisher

Scientific Foundation SPIROSKI

Original language

English

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Sex Differences in Neuropeptide Y Serum, But Not in Fat Intake and Body Mass Index

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Abstract

BACKGROUND: One's appetite has a role in controlling food intake and maintaining energy balance, but its effect on body metabolism related to obesity is still questionable. **AIM:** The purpose of this study was to determine the levels of neuropeptide Y in healthy people and to see differences in gender and anthropometric parameters. The hypothesis of this study was that there would be differences in neuropeptide Y levels in groups with gender and anthropometric parameter differences. **METHODS:** This study was a cross-sectional study involving 62 study subjects, male and female, who did not have chronic diseases or metabolic disorders. This research was conducted from April to September 2020. The parameters examined in this study were neuropeptide Y levels and anthropometric parameters. The statistical analysis performed was the Mann–Whitney test to see the differences between groups. **RESULTS:** The mean age of the research subjects was 40.48 ± 10.85 years, with the same ethnic distribution. The distribution of men and women was more women than men. Based on anthropometric examination, it was found that obesity nutritional status was more common in the female group than in the male group; however, serum neuropeptide Y levels were found to be significantly different between male and female groups (male group was higher) which were $\text{mean} \pm \text{standard deviation}$: 348.37 ± 330.09 ng/L, $p = 0.036$. **CONCLUSIONS:** The study found significant differences in serum neuropeptide Y levels in male and female groups, with neuropeptide Y levels being higher in men than in women. © 2022 Dina Keumala Sari, M. Ichwan, Dewi Masyithah, Ridha Dharmajaya, and Alfi Khatib.


Author keywords

Appetite; Gender; Neuropeptide; Obesity; Orexigenic

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This project was funded, in part, by the Lembaga Penelitian Universitas Sumatera Utara according to TALENTA Universitas Sumatera Utara, year 2020, no. 4142/UN5.1.R/PPM/2020, Date: April 27, 2020.


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