Abstract

This bachelor thesis deals with the connection between incorrectly adjusted nutrition, obesity and the values of glycemia and glycated hemoglobin.

 Aim:

The aim of this thesis is to confirm the effect of nutritional education on diet modification, and thus on weight reduction and body composition adjustment in obese individuals with diagnosis of diabetes mellitus and without diagnosis of diabetes mellitus.

Methods:

For the purposes of the research were selected clients of Centrum výživy s.r.o. situated in Prague 2 with overweight or obesity. The total research group consisted of 42 probands, 32 women and 10 men. All of them were older than 18 years have BMI above 24,9 kg/m^2. Initially, all probands were subjected to bioelectrical impedance analysis on a Tanita BC-418 MA to analyse body composition and actual body weight. Subsequently, the waist circumference was measured with 150 cm long tape. Laboratory testing was performed on all probands. During the 60-minute long consultation were discussed probands current eating habits and their current healt situation, physical acitivity and prefered foods were obtained using a questionnaire survey. Based on this informations were made nutrition recommendations for each of the probands, which he has to follow for next 6 moths. Once a month were performer control measurements on Tanita BC-418 MA to verify the effect of dietary adjustments on probands weight and their body consumtion. After six months, selected probands with type 2 diabetes mellitus diagnosis underwent further laboratory tests. This time was measured only glycemia and glycated hemoglobin values. The obtain data evaluated in the formo f descriptive statistics using Microsoft Excel.

Results:

After six months the body weight was reduced by an average of 9,2 kg and the amount of body fat was reduced by 7,4 kg. The value of visceral fat was reduced by an average of 2,1 units. Unfortunately, the change in fasting blood glucose and glycated hemoglobin values could not be assessed due to insufficient data.