Abstract

Background: The aim of our study was to investigate the allelic frequency of the G308A polymorphism in the TNF alpha gene and the influence of G308A this polymorphism on cardiovascular risk factors and adipokine levels in obese patients. Design: A population of 834 obesity patients was analyzed. A nutritional evaluation and a blood analysis were performed. The statistical analysis was performed for the combined G308A and A308A as mutant group and type G308G as wild group. Results: A total of 630 patients (181 males/449 females) (75.5%) had the genotype G308/G308 (wild genotype group) with an average age of 43.5 ± 14.8 years, 188 patients (61 males/127 females) (22.5%) had the genotype G308/A308 (mutant genotype group-heterozygote) and 16 patients (5 males/11 females) (1.9%) with an average age of 44.5 ± 14.2 years had the genotype A308/A308 (mutant genotype-homozygote) with an average age of 44.3 ± 11.4 years, without statistical differences in the mean age or sex distribution. Genotypes G308/A308 and A308/A308 was designed (mutant genotype group) as a dominant model. Allelic frequency of the A substitution - 308 was 13.19%. Anthropometric, adipokines, insulin resistance, lipid levels ad dietary intake were similar in both genotypes. Conclusion: In conclusion, allelic frequency of G308A polymorphism is is in accordance with allelic frequencies observed in other populations. Carries of A308 allele have the same anthropometric and metabolic profile than wild type carriers.

Keywords

Adipokines, Cardiovascular risk factors, G308A TNFalpha polymorphism, Obesity.