Abstract

Introduction: Leptin, hormone secreted by the fat tissue, changes the signaling of dopamine in the nucleus accumbens, which directly affects the sensitivity of reward and modulation of abstinence. Aims: To evaluate the level of serum leptin and its relation to nutritional status among alcoholic abstainers and non-abstinent. Methods: Patients of both sexes, over 18 years old and who used alcohol as their primary drug were included in the study. Abstaining patients were separated according to the time without the use of the drug as A2 (1-3 month abstainers) and A3 (4 month and over abstainers). Waist circumference (WC), body fat percentage (%BF) and weight and height were measured to calculate Body Mass Index (BMI). Blood samples were collected for leptin measurement. Results: Mean levels of leptin, leptin/BMI, leptin/%BF were higher in all women categories. Abstaining women (A2) also showed higher leptin, leptin/BMI and leptin/%BF than non-abstinent (p = 0.039; p = 0.023; p = 0.023). Statistical differences were also shown among abstaining women A2 and A3 as well a significant positive association between leptin levels and BMI and leptin and WC in active female drinkers (leptin × BMI: r = 0.91; p < 0.01; leptin × WC: r = 0.87; p = 0.001). However, a significant association was not shown among these results in abstaining women (leptin × BMI: r = 0.28; p = 0.37/ leptin X WC: r = -0.32, p = 0.92). Conclusion: Our results suggest that leptin levels seem to increase only in abstaining women. This result can be related to the length of abstinence.

Keywords

Leptin, Dependency, Body mass index, Craving.