

# LEPTIN CONCENTRATION IN ALCOHOL DEPENDENT MALE PATIENTS

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**ABSTRACT** – Leptin (LPT) is an adipocyte-secreted hormone, which regulates fat mass by decreasing appetite and food intake and increasing energy expenditure. Thus, an increase of serum leptin level could be an indicator of malnutrition. Probably, leptin stimulates immunocompetitive cells and increases their secretion activity of some proinflammatory cytokines.

The leptin secretion depends on many different factors, among other things alcohol. One of the probable reasons of postalcoholic hyperleptinemia is induction of necrotic factor, TNF-alpha, which increases both circulating leptin level and gene expression in the adipose tissue.

The aim of this study was to investigate whether a lack of appetite and caloric deficit in alcohol-dependent men are caused by an increased leptin level or by some other reason.

Sixty males with diagnosis of alcohol dependence were examined. The control group consisted of fourteen males without alcohol dependence, drinking alcohol occasionally. The investigated parameters were determined in the blood serum by means of immunoenzymatic assay.

As in general population, in alcohol dependent males, the leptin levels were positively correlated with BMI (body mass index).

There was no significant difference in the leptin level and LPT/BMI index between the alcoholic and control group. On the other hand, the compared groups differed in TNF-alpha level.

The level of TNF-alpha in the subgroup of patients with hyperleptinemia was higher than in the subgroup with normal leptin level. There was no inverse dependence. These results suggest that leptin induces TNF-alpha secretion.

**Key words:** alcohol dependence, leptin, necrotic factor TNF-alpha.