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## RELATIONSHIP BETWEEN PLASMA CORTIZOL LEVELS AND SCORE OF DEPRESSION IN HEROIN ADDICTS OF METHADONE TREATMENT

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**BACKGROUND:** Although endocrine abnormalities are recognized in opiates users and methadone maintenance patients, very little is known about the range of hormones affected, their pathophysiology and their clinical relevance. Various endocrine abnormalities have been reported in these patients with included increased levels thyroxin (T4), Triiodthyronine (T3), insulin and glucose metabolism abnormalities similar for those seen on type 2 diabetes, increased prolactin levels and abnormalities in sexual hormone. Adrenal insufficiency decrease noradrenaline levels and increase plasma cortisol levels. Pathophysiological mechanism postulated does explain these findings included a direct action of heroin or methadone at the hypothalamic or pituitary level. The aim of this study was to determine the relationship between serum cortisol levels and score of depression in methadone maintenance treatment (MMT) patients. The study was cross sectional. In this clinical study were assessed morning serum concentrations of cortisol in 60 patients of MMT in Day hospital on methadone treatment of heroin addicts.

**METHODS:** Serum cortisol levels were determined with chemiluminescent enzyme immunoassay (CLIA) methods of Immulite 2000 analyzers, Beck Depression Inventory (BDI) was used to determine the depressive condition.

**RESULTS:** The correlation between serum cortisol levels and score of BDI depressive symptoms in all patients in MMT was statistically significant ( $p < 0.05$ ).

**CONCLUSIONS:** Higher serum levels of cortisol are in direct dependence with high scores that conditions striking depressing symptomology. The results are of great importance for diagnosing depressive state of the patients, and therefore the application of certain antidepressant therapy.