

Oxytocin Level among Patients with Opioid Use Disorder and Its Correlation with Personality Traits and Perceived Childhood Trauma

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Abstract

Background: Personality traits and perceived childhood maltreatment are of the predictors of substance use disorder development. Many studies have discussed oxytocin effect on personality traits and its relation with childhood trauma and how both affect the addictive process. The main aim was to compare oxytocin level between patients with opioid use disorder and controls and the potential association of oxytocin level with the basic dimensions of personality traits and perceived childhood adverse experiences in patients' group. Forty male patients with Opioid Use Disorder and 40 healthy controls matched in age, gender was assessed and compared as regarding serum oxytocin level by ELISA, personality traits using Temperament and character inventory- revised (TCI- R) scale, and childhood adverse events using childhood trauma questionnaire.

Results: A significant difference between the patient group and the control group as regarding the serum oxytocin level was found. Negative correlation with p-value <0.05 between oxytocin level and each Novelty seeking, and Harm avoidance, in addition to a positive correlation between oxytocin level and each of reward dependence, self-directedness, and cooperativeness items of (TCR-R) , among cases were found. Cases didn't show statistically significant difference in oxytocin level between different Childhood Trauma Questionnaire (CTQ) items.

Conclusions: The interaction between serum oxytocin levels, personality traits, childhood trauma has to be considered in management with heroin dependent patients as it plays a crucial role.