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**AUTOANTIBODIES REACTING WITH VASOPRESSIN AND OXYTOCIN IN RELATION TO CORTISOL SECRETION IN MAJOR DEPRESSION**

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**Introduction:** Abnormal vasopressin (VP) and oxytocin(OT) signaling may contribute to the altered activity of the hypothalamo-pituitary-adrenal(HPA) axis in major depression; the underlying mechanisms remain uncertain.

**Objective:** This study characterized plasma levels and affinities of OT-and VP-reactive autoantibodies(autoAbs) with relation to disease severity and plasma cortisol response to physical exercise in patients with mild and moderate depression and healthy controls.

**Methods:** Physical exercise was used to elicit plasma cortisol response in 23 male depressive and 20 healthy subjects. All subjects were evaluated by the MADRS. Plasma levels VP-and OT-reactive IgG, IgA and IgM autoAbs were measured by ELISA, before and after the exercise, and affinity was measured by plasmon resonance.

**Results:** Plasma levels of OT-and VP-reactive total IgG autoAbs were lower in patients with moderate depression vs. controls and patients with mild depression. Both OT- and VP- free IgG autoAbs levels were negatively correlated with MADRS scores. Affinity values displayed 100 fold variability in both groups. Patients with moderate depression displayed blunted response of cortisol secretion to physical exercise. Baseline levels of VP total IgG and IgM autoAbs correlated negatively and of VP free IgG autoAbs correlated positively with plasma cortisol after physical exercise.

**Conclusion:** These data show that changes of levels but not affinity of OT- and VP- reactive autoantibodies can be associated with the altered mood in subjects with moderate depression and that levels of VP-reactive autoAbs are associated with cortisol secretion.