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### PLASMA CORTISOL LEVELS AND PHYSICAL AGGRESSION IN DEPRESSED PATIENTS

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An analysis of the biological mechanisms underlying both aggression and major depression (MD) shows the implication of common features. There is a well known link between MD and hyperactivity of the hypothalamic-pituitary-adrenal (HPA) axis. Moreover, the HPA axis dysfunction has been identified as a promising predictor of suicidal behaviours in mood disorders.

The aim of the study was to examine the relationship between aggressive behaviour and plasma cortisol levels during a Major Depression Episode (MDE).

83 patients (M/F = 43/40; mean age  $47,70 \pm 14,52$ ) with a Mood Disorder during a MDE have been recruited at the Day Clinic of Psychiatry of the Catholic University in Rome.

A blood sample for the determination of plasma cortisol levels was collected before antidepressant treatment. Aggression Questionnaire (AQ) was used to evaluate aggression traits such as Verbal Aggression (VA), Physical Aggression (PA), Anger (A), Hostility (H) and total Aggression score (AQtot). No significant correlation between plasma cortisol levels and VA, A, H or AQtot was found. A positive correlation between PA scores and plasma cortisol levels was reported ( $r = 0.39$ ;  $p = 0.007$ ).

Physical Aggression underline a risk for subsequent inner-directed violence, including suicidal thoughts and behaviours and it is also associated to a serotonergic system dysfunction. An abnormal interaction between the HPA mechanisms and serotonergic systems has also been suggested in suicidal behaviours.

Our results confirm the importance of further research with more sensitive markers to monitor HPA axis activity (e.g. Dexamethasone/CRH test), serotonergic activity and psychopathological features in depressed patients.