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## **Elevated salivary dehydroepiandrosterone-sulfate but normal cortisol levels in medicated depressed patients: Preliminary findings.**

J. Assies, I. Visser, N. A. Nicolson, T. A. Eggelte, E. M. Wekking, J. Huywer, et al. *Psychiatry Research* 128 (2004): 117-122.

Studies of the dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis that is observed during major depression have largely focused on cortisol. Since cortisol and dehydroepiandrosterone-sulfate (DHEAS) are both regulated by adrenocorticotrophic hormone (ACTH) it would seem logical that depression might similarly affect regulation of DHEAS. A limited number of studies on DHEAS in depressed patients have shown no clear pattern of change, however. This study further examines the question by looking at cortisol and DHEAS levels in depressed patients who were under medication.

Thirteen depressed patients, all of whom were taking antidepressants, were recruited from a treatment program in Amsterdam, along with thirteen healthy control subjects. Saliva samples were collected from all subjects at 08:00 and 22:00 on the same day. Cortisol and DHEAS levels in the samples were determined by commercial ELISA kits designed for saliva use.

Diurnal declines in cortisol and DHEAS levels from morning to evening were observed in both the depressed and control groups. Compared to the control group, depressed patients had significantly higher DHEAS levels, but normal cortisol levels. Based on the evening levels of DHEAS alone, 77% of the subjects could be correctly classified as belonging to the depressed or control groups. From these preliminary findings the authors suggest that DHEAS may be a more sensitive indicator of depression and symptom severity than cortisol for patients who are medicated but still clinically depressed.