Elevated salivary dehydroepiandrosterone-sulfate (DHEA-S) but normal cortisol levels in medicated depressed patients: preliminary findings

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Major depression is often associated with dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis. In contrast to cortisol, dehydroepiandrosterone-sulfate (DHEA-S) has been less extensively studied in depressed patients. This study examined salivary morning and evening levels of cortisol and DHEA-S in 13 medicated, unipolar, non-psychotic depressed patients and 13 healthy volunteers. Diurnal declines in cortisol and DHEA-S levels were found in both depressed and control groups. In patients compared to controls, DHEA-S was significantly elevated, in conjunction with normal cortisol levels. Based on DHEA-S at 22.00 h only, 77% of the subjects were correctly classified in a discriminant analysis as depressed or control. When simultaneously entered in a multiple regression analysis, DHEA-S (morning and evening) and cortisol (evening only) predicted symptom severity in depressed patients. These preliminary results suggest that DHEA-S may be a more sensitive indicator of depression and the symptom severity than cortisol in medicated but still clinically depressed patients.

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