
Abstract
Baseline cortisol levels at 8.00 a.m. and the cortisol responses at 90 and 120 min after oral administration of 200 mg 5-hydroxytryptophan (5-HTP) (L-isomer, non-enteric-coated) were assessed in 65 depressed inpatients. Patients were categorized according to DSM-III as major (296.22; 296.32; 296.23; 296.33; 296.24; 296.34) and minor (300.40; 309.00; 296.82) depressives. We observed a significant rise of plasma cortisol in patients with major depression at 90 (P = 0.0001) and 120 (P = 0.002) min, but not in patients with minor depression. Patients with major depression showed significantly higher cortisol responses than those with minor depression (P = 0.016). This significant rise of plasma cortisol after 5-HTP could be attributed to sex-linked differences: we observed significant (P = 0.0065) rises in cortisol responses in women with major depression compared to depressed men and women with minor depression. These differences could not be attributed to age, concomitant benzodiazepine use or pre/postmenopausal status. Baseline cortisol correlated negatively with the cortisol response to 5-HTP. The increased cortisol responses in women with major depression remained significant even after the effects of baseline cortisol were partialled out. This rise in cortisol response can be explained by an increased responsiveness of the hypothalamic-pituitary-adrenal axis to 5-HTP.