Data are presented to validate the overnight dexamethasone suppression test for the diagnosis of melancholia. Abnormal plasma cortisol concentrations occurred within 24 hours for melancholic patients. The results reported in 1981 suggest that a 1 mg dose does provide a useful single test for endogenous depression.Item mentioned in over 1,225 publications.

Combining Laboratory and Clinical Criteria for Depression

Bernard J. Carroll
Department of Psychiatry
Duke University Medical Center
Durham, NC 27710

June 17, 1989

This work began when I was a psychiatry resident in Melbourne in 1967. I wanted to study in humans the mode of action of the then-new tricyclic antidepressant drugs. A neuroendocrine strategy was conceived in collaboration with F. R. Martin and Brian M. Davies, my mentors in endocrinology and psychiatry. We planned to perform hypothalamic-pituitary function tests in depressed patients before and during tricyclic drug treatment. We soon found that many patients did not suppress plasma cortisol levels normally in response to dexamethasone, even before treatment. For the last 21 years, I have explored the significance and mechanism of that observation.

By 1976 the time course of the escape from dexamethasone suppression was established, and we knew that most nondepressed psychiatric patients had normal suppression when a 2 mg dose of dexamethasone was used. It remained to explore with many colleagues in Ann Arbor the optimal dose for the procedure. The results reported in 1981 suggested that a 1 mg dose improved the sensitivity without lowering the specificity of the psychiatric dexamethasone suppression test (DST).

Many clinicians adopted the DST enthusiastically, some perhaps uncritically, while many research groups appropriately set about questioning the reported high rate of correlation with melancholia. Abnormal DST results are strongly associated with suicide or violent suicide attempts. The clinically relatively rate of specific melancholic patients with abnormal DST results resembles the classical melancholic clinical profile, has a high rate of recurrence and a strong family history, has a poor prognosis if the test does not normalize with drug treatment, and has the highest rate of specific response to antidepressant drugs. Abnormal DST results are strongly associated with suicide or violent suicide attempts. The clinically relatively "bottom line" that seems to be emerging is the suggestion that this group of patients will fail to respond to psychosocial treatment of their depressions, and that drug treatment for them will become a mandate of quality assurance. We await the data.

5. ————. Clinical applications of the dexamethasone suppression test for endogenous depression. Pharmacopsychiatry 15:19-25, 1982. (Cited 55 times.)