

Cortisol levels in atypical depression and chronic fatigue syndrome using hair and saliva specimens



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Background: Several diagnostic criteria for major depressive episode (MDE) overlap with CFS definition. However, it is unknown the weight of this association in atypical depression, a subtype of MDE that has frequently been linked with CFS, since both disorders exhibit low cortisol levels. However, this result has been only found in specimens designed for measuring acute cortisol levels. In this study, we measure cortisol levels in subjects with CFS and atypical MDE without psychiatric comorbidity, using both hair and saliva specimens, to gain a measure of both short and long term cortisol levels in these two conditions.

Methods: Psychiatric questionnaires in addition to hair (HCC), representing the cortisol concentration of the previous three months and six time-points of saliva specimens across the day for taking four saliva measures were assessed in an age and gender matched group of 34 controls, 15 subjects with atypical depressive episode (A-MDE) and 17 with CFS.

Results: CFS (92.22 nmol/l, s.d = 33.19 nmol/l) and A-MDE (mean = 89.05 nmol/l, s.d = 22.58 nmol/l) subjects showed lower cortisol total daily output in saliva (AUCg) in comparison to healthy controls (mean = 125.53 nmol/l, s.d = 40.64 nmol/l). CFS and A-MDE did not differ from one another in any cortisol measures, including HCC. CFS subjects reported fewer daily stressors in comparison to A-MDE subjects. There was no difference in overlapping symptoms between CFS and A-MDE subjects.

Conclusions: Low levels of cortisol using short-term measures (AUCg) may be transitory, since cortisol levels were normal when a long-term measure; hair was studied. This may be explained by hyperreactive cortisol secretion. It is suggested that A-MDE and CFS are part of the group of somatic symptom disorders, since it was found the same pattern of cortisol secretion in both disorders, in addition to the same frequency of overlapping clinical features.

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Cortisol levels in major depressive episode using fingernail specimens



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Background: Hypercortisolemia may be a biomarker in major depressive episode (MDE), but not all studies have obtained this finding. Previous conflicting results may be partly explained by the use of different specimens that only assess acute cortisol levels. Recently, fingernails have been proposed as a specimen for measuring chronic cortisol levels over a period of several weeks. However, cortisol levels using fingernails have not yet been reported in MDE.

Methods: We assessed clinical features and subtypes of depression in addition to fingernail cortisol levels in a group of 26 subjects with DSM-5 MDE and an age and gender matched group of 45 controls.

Results: MDE subjects (mean = 201.2, SD = 277.2 pg/mg) showed significantly higher cortisol levels measured in fingernails compared to control subjects (mean = 101.5 pg/mg, SD = 90.5), $p = 0.03$. MDE subjects with non-atypical features exhibited higher cortisol levels than controls ($p = 0.03$).

Conclusions: Results showed elevated cortisol in MDE using an aggregate measure of cortisol over several weeks. MDE subjects are therefore shown to have subclinical chronic hypercortisolism, which we hypothesis might have a mediating role in the frequent association between some common medical comorbidities such as hypertension and diabetes in subjects with MDE. Elevated chronic cortisol may be confined to the subgroup of patients with non-atypical features.

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Cortisol levels in unipolar and bipolar depression using hair and saliva specimens



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Introduction: Early discrimination between unipolar and bipolar depression is a significant diagnostic challenge. One of the