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Clonidine test in bipolar vs unipolar melancholic patients

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Key words: Clonidine test; Bipolar depression; Mania

An increase in growth hormone (GH) response to catecholaminergic challenges has been suggested in bipolar depressed patients (Siever et al., 1982). In this study, we specifically assessed GH response to clonidine, an α2-adrenergic agonist, in 10 bipolar melancholic inpatients matched for gender, age, and, in the case of women, menopausal status, with 10 unipolar melancholic inpatients. There was no statistically significant difference in mean GH peak responses to clonidine between bipolar and unipolar depressives: 5.72 ± 7.60 ng/ml vs 4.85 ± 8.19 ng/ml ($t = 0.25$, $df = 1.18$ $p = 0.80$). These results do not suggest increases in α2-adrenergic receptor sensitivity in bipolar depressed patients but cannot address the apparently more physiological hypothesis that receptor increases precede the 'switch' to mania (Bunney et al., 1977).

References

Bunney, W.E. Jr., Post, R.M., Andersen, A.E. and Kopanda, R.T. (1977). A neuronal receptor sensitivity mechanism in affective illness (a review of evidence). Communications in Psychopharmacology 1, 393.

Siever, L.J., Uhde, T.W., Silberman, F.K., Jimmerson, D.C., Aloi, J.A., Post, R.M. and Murphy, D.L. (1982). Growth hormone response to clonidine as a probe of noradrenergic receptor responsiveness in affective disorder patients and controls. Psychiat. Res. 6, 171.

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Red blood cell folate and suicidal behavior

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Key words: Folate; Depression; Suicidal behavior

Several lines of evidence suggest a relationship between depression and folate deficiency (Reynolds et al., 1984). In fact, through their activity as coenzyme for tryptophane and tyrosine hydroxylase, folic acid derivatives play a crucial role in the synthesis of serotonin and dopamine, both implicated in the biology of affective disorders and particularly in suicidal behavior. On these basis, the aim of the study was to assess the role of folic acid as a biological correlate of suicidal behavior. The study was performed in 18 DSM-III-R major depressive inpatients with a history of suicide attempts, matched for gender, age and, in case of women, menopausal status, with 18 major depressive inpatients without history of suicidal behavior. Red blood cell folate concentrations were significantly lower in the group of depressed suicidal patients than in the control group: 190.1 ± 42.3 ng/ml vs 289.7 ± 87.8 ng/ml ($t = 4.33$, $df = 34$, $p = 0.0002$). The results of the present study suggest a role for folic acid as a biological correlate of suicidal behavior. They also support the possible usefulness of folic acid supplement in the pharmacological prevention of suicidal behavior.

References

Reynolds, E.R., Carney, M.W.P. and Toone, B.K. (1984). Methylation and mood. Lancet i, 196-198.

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Relationship between clonidine test and suicidal behavior

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Key words: Clonidine test; Depression; Suicidal behavior

The current main neurochemical theories of the biological correlates of suicidal behavior involve serotonergic and to a lesser extent dopaminergic systems (Pitchot et al., 1992). Few data are available about the possible implication of the noradrenergic function. In the present study, we assessed the growth hormone (GH) response to clonidine, a specific α2-adrenergic agonist, in 16 DSM-III-R major depressive inpatients with a history of suicide attempts, compared to 16 age- and gender-matched major depressive inpatients without history of suicidal behavior. Mean GH peak responses to clonidine were significantly lower in he group of suicide attempters than in the control group: 2.88 ± 2.76 ng/ml vs 7.63 ± 7.95 ng/ml ($t = 225$, $df = 1.30$, $p < 0.05$). Therefore, these results suggest that a blunted GH response to clonidine could be a biological correlate of suicidal behavior.

References

Pitchot, W., Hansenne, M., Gonzalez Moreno, A. and Ansseau, M. (1992). Suicidal behavior and growth hormone response to apomorphine test. Biol. Psychiatry, in press.

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Growth hormone response to apomorphine test in retarded vs agitated depressed patients

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Key words: Apomorphine; Dopamine; Psychomotor retardation

Several lines of evidence suggest a role for dopamine in the pathophysiology of depression (Willner, 1985). Data from cerebrospinal fluid studies are consistent with the hypothesis of a relationship between impaired dopamine activity and psychomotor retardation. The aim of the present study was to assess the dopamine function at the postsynaptic level, with the apomorphine test (0.5 mg s.c.), in retarded depressed patients. Twelve inpatients meeting RDC for a retarded major depressive disorder were matched for gender, age, and, in the case of women, menopausal status with 12 RDC agitated depressed patients. Mean growth hormone peak responses to apomorphine were significantly lower in the group of retarded