

These data provide further supporting evidence to the hypothesis of an abnormality of the 5HT system, in aggressive behaviour, and suggest that such an abnormality, as reflected by platelet markers, is more severe in suicide attempters.

## References

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## Suicidal behavior and growth hormone response to apomorphine test

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Several cerebrospinal fluid (CSF) studies have provided support towards an implication of the dopaminergic system as a determinant of suicidal behavior. Indeed, low CSF levels of the dopamine metabolite homovanillic acid (HVA) have been demonstrated in depressed patients with a history of suicide attempts (Roy et al, *Am. J. Psychiatry* 1986, 143, 1539).

In this study, we assessed the dopamine receptor sensitivity in relationship to suicidal behavior by measuring growth hormone (GH) response to apomorphine 0.5 mg sc in 15 DSM-III-R major depressive inpatients with history of suicide attempts, compared to age- and sex-matched major depressive inpatients without history of suicide.

Patients with a history of suicidal behavior exhibited a significantly lower mean GH peak response to apomorphine than patients who never attempted suicide: 6.4 ng/ml (SD = 4.9) vs 17.3 ng/ml (SD = 10.00),  $t = 14.0$ ,  $df = 1.28$ ,  $p < 0.001$ . In contrast, there was no significant difference in mean GH response between nonviolent (5.8 ng/ml  $\pm$  1.7 SD) and violent (7.0 ng/ml  $\pm$  6.7 SD) attempters ( $t = 0.21$ ,  $df = 1.13$ ,  $p = 0.65$ ).

Therefore, these results suggest that a blunted GH response to apomorphine could be considered as a biological risk factor of suicidal behavior.

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## Serotonin and dopamine systems in obsessive compulsive disorders

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Platelet  $^3\text{H}$ -imipramine ( $^3\text{H}$ -IMI) binding sites, linked allosterically to the serotonin uptake mechanism, are highly related to similar sites present in the brain, and are widely used as peripheral markers of the presynaptic 5HT neurons. Sulphotransferase (PST) is an enzyme involved in the catabolism of dopamine (DA), with similar kinetic characteristics in the brain and in platelets, which may serve as an index of the DA system. Both the 5HT and the DA systems appear to be involved in the pathophysiology of obsessive compulsive disorders (OCD).

Our study aimed to measure platelet  $^3\text{H}$ -IMI binding and 5HT uptake, as well as the 2 forms of platelet PST (TL and TS) in 20 drug-free OC patients, as compared with healthy controls.