Correspondence

EDITED BY TOM FAHY

Marked improvement in tardive dyskinesia following treatment with olanzapine in an elderly subject

Sir: Clozapine has been reported to improve tardive dyskinesia in some patients (Lieberman *et al*, 1991). We are unaware of any previous published reports of improvements in tardive dyskinesia with olanzapine.

A 69-year-old man had a six-year history of paranoid delusions and third-person auditory hallucinations. He had a previous history of heavy drinking, although chronic psychosis with both positive and negative symptoms continued despite having ceased alcohol five years previously. He had been treated with different antipsychotics including trifluoperazine 5 mg b.d. for three years, sulpiride 200 mg nocte for one year and risperidone 1 mg b.d. for three months. His psychotic ideas had persisted and over the previous two years he had developed marked tardive dyskinesia characterised by prominent orofacial grimacing movements involving the tongue.

Routine investigations were unremarkable, except a computed tomographic scan which showed mild cerebral atrophy with a small lacunar infarct in the left frontal region. He scored 19/30 on the Mini-Mental State Examination (Folstein *et al*, 1975). He fulfilled DSM–IV criteria (American Psychiatric Association, 1994) for paranoid schizophrenia. He was started on olanzapine 5 mg per day. There was a marked improvement in delusional ideas and auditory hallucinations, although delusions were still apparent on careful questioning. Three weeks after starting olanzapine his orofacial dyskinesia had noticeably improved. Six months later it could not be observed on clinical examination and, according to his family, had entirely ceased.

Clozapine has been reported to improve tardive dyskinesia in as many as 43% of patients (Lieberman *et al*, 1991). It has significant action at 5-HT_{2A}, 5-HT_{2D} and 5-HT_6 receptors and also has reduced striatal blockade of D_2/D_3 receptors compared with traditional antipsychotics (Tollefson *et al*, 1997). Olanzapine also has greater 5-HT_2 than D_2 activity, is similar to clozapine in molecular structure (Anonymous, 1997) and causes fewer extrapyramidal side-effects than traditional antipsychotics (Pilowsky *et al*, 1997). These similarities make both drugs less likely to cause tardive dyskinesia. If our report is confirmed by others, it has important implications for the treatment of those who have, or who are at risk of developing, tardive dyskinesia. This requires further investigation in larger open-case series and in double-blind studies.

American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders* (4th edn) (DSM–IV). Washington, DC: APA.

Anonymous (1997) A novel atypical neuroleptic agent. *Lancet*, **349**, 1264.

Folstein, M. F., Folstein, S. E. & McHugh, P. R. (1975) 'Mini-Mental State': a practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, **12**, 189–198.

Lieberman, J. A., Saltz, B. L., Johns, C. A., *et al* (1991) The effects of clozapine on tardive dyskinesia. *British Journal of Psychiatry*, **158**, 503–510.

Pilowsky, L. S., Acton, P. D., Costa, D. C., *et al* (1997) Limbic selectivity of clozapine. *Lancet*, **350**, 490–491.

Tollefson, G. D., Beasley, C. M., Graffeo, K. A., *et al* (1997) Olanzapine versus haloperidol in the treatment of schizophrenia and schizophreniform disorders: results of an international collaborative trial. *American Journal of Psychiatry*, **154**, 457–465.

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Increased prolactin responses to d-fenfluramine in obsessive–compulsive disorder

Sir: I wish to comment on the recent report by Fineberg *et al* (1997) which indicated an increased prolactin responsivity to d-fenfluramine challenge in non-depressed, obsessive–compulsive disorder (OCD) patients compared with normal controls. They further concluded that the increased serotonin (5-HT) neurotransmission in OCD patients may represent an adaptive process to the illness.

There may, however, be other reasons for an increased prolactin response in OCD. Anxiety disorder has been related to an activation of the central 5-HT system (Chaouloff, 1993). Hence, it might be possible that the observed increases in prolactin responses in people with OCD may be due to the presence of co-existing anxiety disorder of anxiety symptoms. Unfortunately, the study failed to exclude subjects with OCD with anxiety disorder and no attempt was made to rate anxiety symptoms in these patients. Another important issue is that a heightened stress response to the challenge test situation might have caused an increase in prolactin responses in people with OCD. In support of this argument, recent evidence suggests that prolactin may be a stress hormone (Armario *et al*, 1996). Hence, it is not possible to rule out the role of stress in the observed inter-group differences in prolactin responses, in the absence of a comparative evaluation of stress responses related to the test situation.

Further, if one assumes that increased 5-HT neurotransmission in OCD is due to an adaptive process to the illness, then this could be substantiated by examining whether prolactin responses are positively correlated with severity and with the duration of OCD. No comments were made regarding these data and we would be interested to know whether the authors examined the data further.

Armario, A., Marti, O., Molina, T., *et al* (1996) Acute stress markers in humans: response of plasma glucose, cortisol and prolactin to two examinations differing in the anxiety they provoke. *Psychoneuroendocrinology*, **21**, 17–24.

Chaouloff, F. (1993) Physiopharmacological interactions between stress hormones and central serotonergic systems. *Brain Research Reviews*, **18**, 1–32.

Fineberg, N. A., Roberts, A., Montgomery, S. A., *et al* (1997) Brain 5-HT function in obsessive–compulsive disorder. Prolactin responses to d-fenfluramine. *British Journal of Psychiatry*, **171**, 280–282.

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