## Mania Induced by Olanzapine

A case of mania induced by the atypical antipsychotic olanzapine in a schizoaffective woman is presented. Only one similar case was found on MEDLINE (London, 1998).

A 60-year-old woman, with a 40-year-history of DSM-IV schizoaffective disorder, had delusions of poverty, hypochondriacal and nihilistic delusions, and hallucinations (voices), with superimposed major depressive episodes. She had never had manic episodes. During the last 3 years delusions and hallucinations had not responded to different antipsychotics, including risperidone (8 mg/day). Then, after the gradual discontinuation of risperidone in a few weeks, olanzapine was started, 10 mg/day. A few days after the start of olanzapine she had hyperactivity, pressured speech, marked irritability, severe insomnia, and violent behaviour. Increasing the dose to 20 mg/day worsened the manic symptomatology during the following weeks (delusions and hallucinations did not change). Adding chlorpromazine 200 mg/day, and lorazepam 4.5 mg/day for a few weeks, did not improve the picture. Then, olanzapine was discontinued, continuing treatment with chlorpromazine and lorazepam. In 48 h mania improved dramatically: sleep became normal, pressured speech and violent behaviour disappeared, hyperactivity and irritability became much less severe. Improvement persisted during the following weeks. She had been taking no other drugs.

The close temporal association between the course of mania and treatment with olanzapine suggests a causal link. As she had never had past manic episodes, and new onset mania is rare in late life, a spontaneous switch is unlikely. Induction of mania by the atypical antipsychotic risperidone has been reported (Lane *et al.*, 1998; Dwight *et al.*, 1994; Barkin and Pais, 1997; Schnierow and Graeber, 1996; Koek and Kessler, 1996; Diaz, 1996). Both risperidone and olanzapine have greater serotonin (5-HT2A) than dopamine (D2) antagonism, but relative affinities for these

and other receptors are different (Tran et al., 1997). Olanzapine, like risperidone, has been reported to have antidepressant effects (Tollefson et al., 1997; Tohen and Zarate, 1998). Risperidone can induce mania by 5-HT2 blockade (McElroy et al., 1996). Olanzapine might have induced mania in this case in a similar way.

Franco Benazzi and Emanuela Rossi

Department of Psychiatry,
Public Hospital "Morgagni",
47100 Forli, Italy

## REFERENCES

Barkin, J. S. and Pais, V. M. (1997). Induction of mania by risperidone resistant to mood stabilizers. *Journal of Clinical Psychopharmacology*, **17**, 57–58.

Diaz, S. F. (1996). Mania associated with risperidone use. *Journal of Clinical Psychiatry*, 57, 41.

Dwight, M. M., Keck, P. E., Stanton, S. P., Strakowski, S. M. and McElroy, S. L. (1994). Antidepressant activity and mania associated with risperidone treatment of schizoaffective disorder. *Lancet*, 344, 554–555.

Koek, R. J. and Kessler, C. C. (1996). Probable induction of mania by risperidone. *Journal of Clinical Psychiatry*, 57, 174–175.

Lane, H. Y., Lin, Y. C. and Chang, W. H. (1998). Mania induced by risperidone: dose related? *Journal of Clinical Psychiatry*, 59, 85–86.

London, J. A. (1998). Mania associated with olanzapine. Journal of the American Academy of Child and Adolescent Psychiatry, 37, 135–136.

McElroy, S. L., Keck, P. E. and Strakowski, S. M. (1996). Mania, psychosis, and antipsychotics. *Journal of Clinical Psychiatry*, 57(suppl. 3), 14–26.

Schnierow, B. J. and Graeber, D. A. (1996). Manic symptoms associated with initiation of risperidone. *American Journal of Psychiatry*, **153**, 1235–1236.

Tohen, M. and Zarate, C. A. (1998). Antipsychotic agents and bipolar disorder. *Journal of Clinical Psychiatry*, **59**(suppl. 1), 38–48.

Tollefson, G. D., Beasley, C. M., Tran, P. V., Street, J. S., Krueger, J. A., Tamura, R. N., Graffeo, K. A.

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and Thieme, M. E. (1997). Olanzapine versus haloperidol in the treatment of schizophrenia and schizoaffective and schizophreniform disorders: results of an international collaborative trial. *American Journal of Psychiatry*, **154**, 457–465.

Tran, P. V., Hamilton, S. H., Kuntz, A. J., Potvin, J. H., Andersen, S. W., Beasley, C. and Tollefson, G. D. (1997). Double-blind comparison of olanzapine versus risperidone in the treatment of schizophrenia and other psychotic disorders. *Journal of Clinical Psychopharmacology*, 17, 407–418.