Correspondence

EDITED BY LOUISE HOWARD

Anorexia nervosa as a phenotype of cognitive impairment in schizophrenia

Sir: We report the case of a 14-year-old girl who first became anorexic and went on to develop a psychosis. Once the psychosis arose, her eating problems immediately disappeared.

The patient had gained weight after the age of 12 years; her height and weight were 146 cm and 59 kg (body mass index 27.7) at 13 years and 8 months of age. She gradually became concerned about her body shape. As she wished to be liked by boys of the same age, she started a diet about two months before her 14th birthday. During the next three months, she had lost 9 kg in weight. Five months after the start of the diet, she began to think that people could live without food and that she would put on weight, even if she ate a little food. Then, her menstrual cycles, which had commenced at the age of 11 years and 9 months, ceased.

She was taken by her mother, to see a paediatrician and was diagnosed as suffering from anorexia nervosa. Despite some therapeutic intervention from the paediatrician, she continued to diet and her weight decreased to 30 kg at 14 years and 6 months of age. Owing to further loss of weight (down to 24.5 kg, a 58% reduction relative to her weight before the diet) in the following 20 days, she was admitted to a local general hospital.

On admission, she still attempted to reduce weight and refused to eat. As a result, she had to be nourished intravenously. On the 14th day of admission, she developed an acute psychosis (persecutory delusions and auditory hallucinations) and, on the same day, the distorted belief that people could live without food, and the wish for further reduction of weight completely vanished and eating behaviour returned to normal.

She was treated with haloperidol for the psychosis. The psychotic symptoms, including marked thought-blocking, gradually lessened but persisted for one month. Even after improvement of the psychotic symptoms, disturbed cognition about eating and behavioural eating problems never returned. However, after the acute psychosis, mild negative features (flattened affect and social withdrawal) were noted.

There are a few reports showing that some individuals concurrently suffer from schizophrenia and anorexia nervosa (i.e. symptoms of two different disorders are superimposed) (Hsu *et al*, 1981; Ferguson & Damluji, 1988; Korkina *et al*, 1992) but no studies have been reported showing completely independent episodes of these two types of disorders (i.e. virtually no overlap of the symptoms of the two disorders) in the same individual. In this case, the time courses of eating problems and psychosis were distinct; she did not have both illnesses at the same time. It is of interest that she had a dramatic shift from a course of anorexia nervosa to a clearly schizophrenic course; it looks as if some neuronal circuits were switched off and others on. It is difficult to claim, therefore, that she suffered from two separate disorders. A more likely scenario is that the same disease process underlies the phenotypic diversities. The distorted idea of eating and body image disturbance can be attributed to the cognitive impairments resulting from the schizophrenic process. In the present case, anorexia nervosa as a clinical picture could be merely an expression of fundamental cognitive impairments that lead eventually to manifestations of psychosis.

Our observation of the dramatic change in phenotypic expressions indicates that a severe form of cognitive impairments (i.e. distorted perceptions of reality) represented by delusions and hallucinations may involve neuronal circuits that are different from those related to less severe cognitive impairments (body image disturbance) that were observed in this case and are often present in individuals with anorexia nervosa.

Ferguson, J. M. & Damluji, N. F. (1988) Anorexia nervosa and schizophrenia. *International Journal of Eating Disorders*, **7**, 343–352.

Hsu, L. K. G., Meltzer, E. S. & Crisp, A. H. (1981) Schizophrenia and anorexia nervosa. *Journal of Nervous and Mental Diseases*, **169**, 273–276.

Korkina, M. V., Tsyvilko, M. A., Marilov, V. V., *et al* (1992) Anorexia nervosa as manifested in Russia. *International Journal of Psychosomatics*, **39**, 35–40.

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De novo jet-lag psychosis

Sir: Oyewumi (1998) reported a case of schizoaffective psychosis that relapsed following jet-lag. We present two cases where typical jet-lag syndrome – fatigue, reduced concentration, and exhaustion with insomnia during local sleep time (Waterhouse *et al*, 1997) – culminated in acute *de novo* psychosis.

Case 1: Mr L., a 30-year-old man with no previous psychiatric history, was hospitalised two days after an eastward transatlantic flight with time zone change (−8 hours) evoking jet-lag disturbances – insomnia, fatigue and exhaustion – culminating in acute psychosis: elevated affect, hallucinatory behaviour, loose associations, and grandiose delusions. His Brief Psychiatric Rating Scale (BPRS) score reached 28 points.

It was decided to treat him with zuclopenthixol (10 mg/day) combined with oxazepam (20 mg/day) and melatonin (3 mg/day). The latter was added to ease the jet-lag symptoms. Within five days, the patient calmed down, his psychotic manifestations resolved, and his BPRS

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