Schizophrenic psychosis associated with benzhexol (artane) therapy

Sirs: We wish to report the first case of a schizophrenic illness associated with the therapeutic use of high dose benzhexol.

The patient, a 30 year old female, was diagnosed with spasmodic torticollis at the age of 17. For several years she was treated with various agents, including amantadine, clonazepam, trifluoperazine, haloperidol and baclofen, but without success. At the age of 23 she was admitted to a psychiatric hospital, with an obsessive-compulsive disorder (OCD), which persisted for several years. This was originally associated with depression and dysmorphophobic beliefs concerning her appearance, but only the OCD persisted. She was again admitted at the age of 26 with depression associated with dysmorphophobic concerns.

Three years later she was referred to a specialist neurology clinic for a second opinion concerning her movement disorder. Spasmodic torticollis was again diagnosed, and benzhexol therapy started. Over a three month period the dose was increased to 45 mg daily, and there was a complete resolution of the torticollis.

Four months after starting the benzhexol, she developed a paranoid psychosis, associated with delusions of persecution, delusions of reference and delusions of having AIDS, in addition to her previous dysmorphophobic fears. She was admitted to a psychiatric hospital, where she was irritable and abusive but there was no evidence of a confusional state. She was treated with chlorpromazine and her benzhexol therapy was reduced to 15 mg daily.

Over the next two months her condition deteriorated. She developed thought broadcasting and third person auditory hallucinations, including voices instructing her on her behaviour. She became convinced that the hospital was a concentration camp, and that her husband had been turned into a Nazi officer who had murdered her family. She was also convinced that the members of her family who visited her in hospital were impostors. She accused the nurses of pouring alcohol down her throat. There were also features suggestive of a mood disorder, with irritability, aggression and elation. At no stage was there any alteration in consciousness.

She was treated with increased doses of chlorpromazine, thioridazine and lithium, and made a gradual recovery, leaving the hospital after 4 months. When she was seen in outpatients, still taking benzhexol 15 mg, she was improving. However, six months later confusion over dosages resulted in the prescription of benzhexol being increased to 15 tds. Within one month she had deteriorated. The principal complaint was of thought broadcasting, but Capgras’s syndrome was again present. All treatment was stopped, but there was no change in her condition over the eight week period before neuroleptic therapy was again instituted. She still complains of thought broadcasting six months after stopping benzhexol. Her torticollis has not returned. There is no family history of neurological or psychiatric illness, and there is no history of alcohol or illicit drug abuse.

Benzhexol toxicity is well known. The principal features are those of a toxic confusional state, in which visual hallucinations and disorientation of time and memory are prominent. As benzhexol has euphoriant properties it is a frequent drug of abuse, and it is in this context that most psychiatric side-effects are reported. A recent series included three cases in which a brief psychosis occurred after overdosage of between 25 mg and 50 mg. It is not clear, however, if this was associated with clouding of consciousness. There are fewer reports of psychiatric side-effects occurring after the therapeutic use of benzhexol, although an early case is of particular interest. Bolin described a 32 year old female who was prescribed a regular dose of 30 mg benzhexol for spasmodic torticollis (with therapeutic benefit), who developed a toxic confusional state. Rechallenge with a lower dose (8 mg) led to a reappearance of irritability and ill-defined ideas of reference.

In our current case there is little doubt about the diagnosis of a schizophrenic psychosis, made by the persistence of several first rank symptoms without a disorder of consciousness. The important question is whether this was precipitated by benzhexol. It is possible that the psychosis was unrelated to therapy, since dysmorphophobia may precede schizophrenia. However, the principal psychiatric disorder before either the development of a psychosis or the introduction of benzhexol, was that of an obsessive-compulsive disorder (OCD). Marks concluded that there is no association between OCD and schizophrenia, although there may be an association with basal ganglia disorders.

There are substantial grounds for suggesting a link between the psychosis and benzhexol therapy. After 12 years of torticollis and six years of OCD, the psychosis developed within three months of starting high-dose benzhexol therapy. When a high dose therapy was inadvertently restarted her psychosis returned. Although the development of first-rank symptoms has not been recorded previously, other features of her illness, in particular the development of elation, are in keeping with previous reports of psychosis resulting from benzhexol therapy. It is unlikely that benzhexol is the sole cause of the psychosis, instead it may have precipitated a schizophrenic episode in a predisposed patient.

High dose anticholinergic therapy is being increasingly used in the treatment of several movement disorders. Clinicians should be aware of the possibility of a schizophrenic illness.

References