Psychosis, epileptiform abnormalities and clozapine

SIR: The atypical antipsychotic clozapine was re-introduced for the treatment of resistant schizophrenia in January 1990. Approximately 20% of schizophrenic patients are resistant to typical antipsychotic medication (Davis *et al*, 1980) and of those who do respond initially, approximately 20–30% are liable to relapse despite maintenance therapy (Kane & Lieberman, 1987). A small but significant number of resistant cases have been suggested as having an organic cause, although the role of the organic factors remains unclear (Kolokowska *et al*, 1985). One such factor to be considered is cryptic epileptiform conditions. In routine clinical practice clozapine is often immediately substituted or dove-tailed into pre-existing medication. In the patient with an organic schizophreniform psychosis this may not only mitigate against a response to clozapine, but may actually worsen the condition. The following case illustrates this.

Case report. A 20-year-old single man was referred for tertiary opinion with a 2.5 year history of (resistant) schizophreniform symptoms. Initial presentation in November 1988 followed a two-day history of psychotic symptoms, believing he was Jesus Christ, and becoming increasingly socially withdrawn. The only past history of note was a two-month history of increasing cannabis use.

Symptoms failed to subside and he was started on neuroleptics. Over the subsequent 2.5 years, the course of illness was characterised by episodic delusions of being Jesus Christ with increasing psychotic features and agitation. These lasted between 4 and 10 days with a 2–4 day period of resolution. Therapeutic interventions included various typical neuroleptics (oral and depot), lithium, antidepressants, and electroconvulsive therapy, with no effect. Clozapine, up to 1100 mg, failed to ameliorate his symptoms. An electroencephalogram (EEG) recorded near the beginning of the illness revealed frequent short bursts of high voltage activity, generalised in character, and excess slow activity in the left hemisphere – reported as abnormal with epileptiform equivalents. The computerised-tomography scan was normal. At the time of referral, the EEG while on clozapine and benzodiazepines continued to show non-specific severe diffuse slowing of background rhythms. He was slowly withdrawn from all medication. Subsequent EEG on no medication showed a significant improvement with mild diffuse slowing and occasional general slowing and nonspecific slow waves.

He was subsequently started on carbamazepine, increasing to 400 mg b.d. At this time his behaviour was characterised by longer periods of resolution and shorter less severe paroxysmal relapses. Unfortunately his compliance became erratic with eventual refusal. However, unmedicated he felt much improved and while maintaining some of his beliefs, he did not feel these excluded him from a normal lifestyle. He was therefore referred back for rehabilitation and community placement.

This patient probably has an ictal psychosis. This in itself is of interest as these are relatively unusual compared with inter-ictal psychoses. Generalised seizures (Haller & Birder, 1990) and epileptiform EEG abnormalities (Schmauss *et al*, 1989) have been reported on clozapine. His psychosis was apparently exacerbated by the proconvulsant action of clozapine, and his clinical and EEG improvement following withdrawal of clozapine illustrate this fact. Thus we propose that before assigning a diagnosis of treatment-resistant schizophrenia, all antipsychotics should be stopped and patients investigated for an alternative explanation for drug-resistant symptoms. Clozapine should also be used cautiously where epileptiform mechanisms may be operating in the context of a psychotic illness.

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Catatonia and creatinine phosphokinase

SIR: I would like to report the recurrent association between catatonia and raised creatinine phosphokinase (CPK) in a schizophrenic patient.

The recent resurgence of interest in catatonia is mainly due to the fact that catatonic symptoms are often part of the neuroleptic malignant syndrome (NMS). This has raised the question whether catatonia could be a risk factor in developing NMS (White & Robins, 1991). The difficulty of differentiating the two conditions clinically underlines the need for laboratory tests. High white blood count, raised CPK, and recently low serum iron have all been associated with NMS (Rosebush & Mazurek, 1991).