Review: pimozide had effects on global functioning and mental state similar to typical antipsychotic drugs for schizophrenia

Sultana A, McMonagle T. ***Pimozide for schizophrenia or related psychoses.*** *Cochrane Database Syst Rev 2000;**3**:latest version 26 Sep 2000.*

QUESTION: Is pimozide effective for improving symptoms in patients with schizophrenia or delusional disorder?

Data sources

Studies were identified by searching electronic databases, the *Cochrane Library* (to April 1999), references of relevant studies, and high yield journals and by contacting authors and manufacturers of pimozide.

Study selection

Studies were selected if they were randomised controlled trials that compared pimozide with placebo, no treatment, or another drug in people with schizophrenia or delusional disorder. Exclusion criteria included schizoaffective disorder, dementing illnesses, depression, and substance abuse.

Data extraction

Reviewers assessed the quality of study methods using the criteria in the Cochrane Collaboration Handbook and the Jadad scale. Data were extracted on methods, patients, drug regimens, and outcomes.

Main results

34 studies met the selection criteria. Most of the 1278 patients (mean age approximately 43 y) had schizophrenia, and none had delusional disorder. The mean dose of pimozide (16 studies) was 7.5 mg/day (range 1–70 mg/d in 26 studies). Fewer patients in the pimozide group than in the placebo group had clinical relapses at 6 months to 1 year (3 studies, 103 patients; table). At 3–12 months, fewer patients in the pimozide group than in the placebo group withdrew for any reason (table). 29 studies compared pimozide with oral neuroleptic drugs; 5 studies involved a long acting depot preparation (fluphenazine decanoate), and no studies involved atypical antipsychotic drugs. Pimozide and oral neuroleptic drugs had similar results for global state, mental state, or leaving the study early, and there were no consistent differences in adverse events, including deaths.

Conclusions

Pimozide led to results for global and mental states similar to typical neuroleptic drugs in patients with schizophrenia. No data from randomised controlled trials exist for the use of pimozide in delusional disorder.

*Pimozide (pim) v placebo for schizophrenia or related psychoses**

Outcomes	No of studies	Weighted event rates		RRR (95% CI)	NNT (CI)
		Pim	Placebo		
Clinical diagnosis of relapse at 6–12 months	3	34%	67%	41% (22 to 56)	4 (2 to 13)
Withdrawal for any reason at 3–12 months	3	42%	67%	35% (2 to 57)	5 (3 to 82)

*Abbreviations defined in glossary. Weighted event rates calculated from data in article.

COMMENTARY

Pimozide is a high potency antipsychotic medication which has been used in many countries since the 1970s for the treatment of schizophrenia and other psychoses. In the US, it was licensed in the past decade as an "orphan drug" for the treatment of Tourette's syndrome.

Sultana and McMonagle have identified randomised controlled trials of pimozide for the treatment of schizophrenia. Not surprisingly, pimozide was found to be more effective than placebo for preventing relapse and was similar to other typical antipsychotic drugs in efficacy and side effect profile.

Several unanswered questions remain. It has been claimed that pimozide is more effective than other typical antipsychotic drugs for treating negative symptoms of schizophrenia.[1] None of the studies included in the review specifically reported on negative symptoms as an outcome, so the review was unable to support or refute this claim. In addition, the efficacy of pimozide relative to the newer atypical antipsychotic drugs is unknown because no trial comparing pimozide with an atypical antipsychotic drug was identified.

The safety of pimozide has been questioned after case reports of arrhythmias, prolongation of the QTc (QT corrected for heart rate) interval, and sudden death.[2] This review found no differences in deaths or cardiac symptoms between pimozide and other antipsychotic drugs. Few useful ECG data were reported, so recommendations regarding ECG monitoring could not be derived.

Lastly, none of the clinical trials involved patients with delusional disorder. Although pimozide is frequently recommended as the first line drug in the treatment of delusional disorder,[3] this is based largely on case reports.[4] Clinical trials comparing pimozide with other antipsychotics in the treatment of delusional disorder are clearly warranted.

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1 Opler LA, Feinberg SS. The role of pimozide in clinical psychiatry: a review. *J Clin Psychiatry* 1991;**52**:221–33.
2 Royal College of Psychiatrists' Psychopharmacology Sub-Group. *The association between antipsychotic drugs and sudden death.* Council Report CR 57. London: Royal College of Psychiatrists, 1997.
3 Csernansky JG. Delusional disorder. In: Dunner DL, editor. *Current psychiatric therapy.* 2nd edition. Philadelphia, PA: WB Saunders, 1997.
4 Munro A, Mok H. An overview of treatment in paranoia/delusional disorder. *Can J Psychiatry* 1995;**40**:616–22.

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