Sulpiride: an antipsychotic with selective dopaminergic antagonist properties

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Authors' objectives
To review the pharmacology, pharmacokinetics, clinical investigations and adverse effects of sulpiride as a treatment for schizophrenia.

Searching
MEDLINE was searched using 'sulpiride' as a search term. Bibliographies of pertinent journal articles were also reviewed.

Study selection
Study designs of evaluations included in the review
Double-blind randomised controlled trials (RCTs) and for the purpose of adverse reaction assessment studies with open designs.

Specific interventions included in the review
Sulpiride (an antipsychotic drug used to treat the negative symptoms of schizophrenia).

Participants included in the review
Patients with diagnosed schizophrenia were included (n=351).

Outcomes assessed in the review
The target symptoms of schizophrenia (e.g. anhedonia, apathy, blunted affect, poverty of speech) as assessed by a standard rating scale (e.g. Brief Psychiatric Rating Scale (BPRS)) and the adverse effects of sulpiride (extrapyramidal reactions, autonomic effects, tardive dyskinesia).

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

Assessment of study quality
The studies had to have a treatment duration of at least 6 weeks (short-duration trials were those lasting no more than 8 weeks and extended duration trials were those lasting more than 8 weeks), a diagnosis of schizophrenia determined by formal criteria (e.g. American Psychiatric Association DSM-III-R criteria) and an evaluation of target symptoms with a standard rating scale (e.g. BPRS). In the case of adverse effect assessment, trials with a duration of less than 6 weeks and an open design were included. The authors do not state how the papers were assessed for validity, or how many of the authors performed the validity assessment.

Data extraction
The data were selected by one reviewer and reviewed by two reviewers.

Methods of synthesis
How were the studies combined?
A narrative review was undertaken.

How were differences between studies investigated?
The authors do not state how differences between the studies were investigated.
Results of the review
Eight studies in total, 7 of which were RCTs and 1 of which was an open design (and was only included for the purpose of adverse reaction assessment).

The 3 clinical studies included support sulpiride as being equally effective as other antipsychotic drugs in the acute treatment of patients with schizophrenia (e.g. in one trial comparing sulpiride with trifluoperazin, both groups experienced improvements in BPRS scores [sulpiride group had a baseline BPRS score of 43.8 which decreased to 31.5 by the end of the treatment period \( p=0.001 \) and the trifluoperazine group had a baseline BPRS score of 42.7 decreasing to 36.1 \( p=0.01 \) by the end of treatment].

The 3 clinical studies included do not support the effectiveness of sulpiride in the long term treatment of the target symptoms of schizophrenia.

The adverse effects caused by sulpiride do not appear to differ greatly from standard antipsychotics, although tardive dyskinesia does seem to be associated with sulpiride.

Cost information
No

Authors' conclusions
Sulpiride is a safe and effective pharmacotherapeutic treatment for the acute management of schizophrenia. Sulpiride's unique pharmacology may provide it with minor safety advantages even though it does not appear to have any greater effectiveness than standard antipsychotics.

CRD commentary
No information on the dates of the search was included and it is unclear how many relevant studies would have been retrieved using the search term 'sulpiride'.

It is unclear what the authors mean by the term 'open design'.

Bibliographic details

PubMedID
7756714

Indexing Status
Subject indexing assigned by NLM

MeSH
Animals; Autonomic Nervous System Diseases /chemically induced; Basal Ganglia Diseases /chemically induced; Clinical Trials as Topic; Double-Blind Method; Dyskinesia, Drug-Induced /etiology; Humans; Randomized Controlled Trials as Topic; Receptors, Dopamine /chemistry; Schizophrenia /drug therapy; Sulpiride /chemistry /metabolism /pharmacology /therapeutic use; Time Factors

AccessionNumber
11995001169

Date bibliographic record published
Date abstract record published
22/08/1995

Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.