Risperidone: efficacy and safety

Umbricht D, Kane J M

Authors' objectives
To review the evidence for the efficacy and effectiveness of risperidone in persons with schizophrenia.

Searching
MEDLINE and PsycLIT were searched from 1988, and references in retrieved articles were searched for additional studies.

Study selection
Study designs of evaluations included in the review
The included studies were double-blind trials comparing risperidone with another antipsychotic or a placebo. The duration of the trials ranged from 4 to 12 weeks.

Specific interventions included in the review
The included studies compared risperidone to either another antipsychotic or a placebo. Risperidone was given in doses ranging from 2 to 20 mg daily. The other antipsychotics studied were haloperidol, perphenazine and clozapine at daily doses ranging from 2 to 20 mg, 16 to 48 mg, and 400 mg, respectively.

Participants included in the review
Patients diagnosed as having acute schizophrenia as defined by the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders (DSM-111-R) or International Classification for Diseases (ICD-9). Male and female patients of both white and Asian origin were included. The mean age ranged from 34 to 39 years across trials, with duration of illness being up to 16 years, and with patients having had up to 9 prior episodes of illness. The mean psychopathology score at study entry ranged from 44 to 55 on the Brief Psychiatric Rating Scale (BPRS) or from 85 to 94 on the Positive and Negative Syndrome Scale (PANSS). In-patients were included.

Outcomes assessed in the review
The main outcomes assessed were the efficacy of treatment and extrapyramidal, autonomic and central nervous system side-effects. The efficacy of treatment was assessed using the following measures: BPRS, documentation system for the Association for Methodology and Documentation in Psychiatry (AMPD), PANSS, Scale for the Assessment of Negative Symptoms (SANS), Clinical Global Impressions (CGI), Nurses Observation Scale for Inpatient Evaluation (NOSIE-30), Schedule for Affective Disorders and Schizophrenia-Current Version (SADS-C). Side-effects were assessed using the following measures: DVP side-effects rating scale, Extrapyramidal Symptom Rating Scale (ESRSA), Udvalg for Kliniske Undersogelser Side Effect Rating Scale (UKU) and the Abnormal Involuntary Movement Scale (AIMS).

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

Assessment of study quality
The authors do not state that they assessed quality.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.
Methods of synthesis
How were the studies combined?
The studies were combined by a narrative review.

How were differences between studies investigated?
The heterogeneity of patients included in the trials was noted, although no statistical tests were presented.

Results of the review
Efficacy and side-effects were assessed using the following comparisons: risperidone versus haloperidol, 7 double-blind trials with 2,067 patients;
risperidone versus perphenazine, 1 double-blind trial with 107 patients; and
risperidone versus clozapine, 1 double-blind trial with 59 patients.

Inconsistent results were obtained from the different outcome measures used to assess efficacy and side-effects. Side-effects of risperidone that were reported, but not assessed as main outcomes, included insomnia, agitation, headache, anxiety, rhinitis, nausea, dizziness, asthenia, weight gain and an increase in prolactin.

Authors' conclusions
Research questions that remain to be answered relate to the effectiveness of risperidine in deficit symptoms and in typical clinical treatment settings, as a maintenance therapy, and for patients with illness refractory to conventional antipsychotics. In addition, the cost-effectiveness of risperidone compared to conventional antipsychotics and clozapine needs to be addressed.

CRD commentary
The literature search was limited to two databases and may not have revealed all relevant studies. Although many details of the included studies are clearly tabulated, no mention is made of the randomisation or otherwise of the studies, there is no assessment of the quality of the included trials and it is unclear whether the results quoted are from an intention-to-treat analysis. This last factor is of importance given the very high drop out rates which, where given, ranged from 9 to 73%. The narration of results illustrates the complexity of the findings, with results varying within trials depending on the scale used to assess effectiveness. A discussion of the differing results obtained on the various outcome measures would have been welcome. The difficulty of assessing risperidone is, as the author states, compounded by the lack of knowledge of the optimal haloperidol dosage to use as a 'gold' standard for comparison.

Bibliographic details

PubMedID
8749887

Indexing Status
Subject indexing assigned by NLM

MeSH
Acute Disease; Antipsychotic Agents /adverse effects /therapeutic use; Double-Blind Method; Humans; Randomized Controlled Trials as Topic; Risperidone /adverse effects /therapeutic use; Schizophrenia /diagnosis /drug therapy; Schizophrenic Psychology; Treatment Outcome

AccessionNumber
11996004140
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.