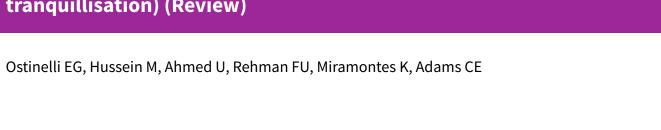


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Risperidone for psychosis-induced aggression or agitation (rapid tranquillisation) (Review)



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[Intervention Review]

Risperidone for psychosis-induced aggression or agitation (rapid tranquillisation)

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ABSTRACT

Background

Aggressive, agitated or violent behaviour due to psychosis constitutes an emergency psychiatric treatment where fast-acting interventions are required. Risperidone is a widely accessible antipsychotic that can be used to manage psychosis-induced aggression or agitation.

Objectives

To examine whether oral risperidone alone is an effective treatment for psychosis-induced aggression or agitation.

Search methods

We searched the Cochrane Schizophrenia Group's Study-Based Register of Trials (up to April 2017); this register is compiled by systematic searches of major resources (including AMED, BIOSIS CINAHL, Embase, MEDLINE, PsycINFO, PubMed, and registries of clinical trials) and their monthly updates, handsearches, grey literature, and conference proceedings. There are no language, date, document type, or publication status limitations for inclusion of records into the register.

Selection criteria

Randomised controlled trials (RCTs) comparing rapid use of risperidone and other drugs, combinations of drugs or placebo for people exhibiting aggression or agitation (or both) thought to be due to psychosis.

Data collection and analysis

We independently inspected all citations from searches, identified relevant abstracts, and independently extracted data from all included studies. For binary data we calculated risk ratio (RR) and for continuous data we calculated mean difference (MD), all with 95% confidence intervals (CI) and used a fixed-effect model. We assessed risk of bias for the included studies and used the GRADE approach to produce a 'Summary of findings' tables.

Main results

The review now contains data from nine trials (total n = 582) reporting on five comparisons. Due to risk of bias, small size of trials, indirectness of outcome measures and a paucity of investigated and reported 'pragmatic' outcomes, evidence was graded as very-low quality. None of the included studies provided useable data on our primary outcome 'tranquillisation or asleep' by 30 minutes, repeated



need for tranquillisation or any economic outcomes. Data were available for our other main outcomes of agitation or aggression, needing restraint, and incidence of adverse effects.

Risperidone versus haloperidol (up to 24 hours follow-up)

For the outcome, specific behaviour - agitation, no clear difference was found between risperidone and haloperidol in terms of efficacy, measured as at least 50% reduction in the Positive and Negative Syndrome Scale - Psychotic Agitation Sub-score (PANSS-PAS) (RR 1.04, 95% CI 0.86 to 1.26; participants = 124; studies = 1; very low-quality evidence) and no effect was observed for need to use restraints (RR 2.00, 95% CI 0.43 to 9.21; participants = 28; studies = 1; very low-quality evidence). Incidence of adverse effects was similar between treatment groups (RR 0.94, 95% CI 0.54 to 1.66; participants = 124; studies = 1; very low-quality evidence).

Risperidone versus olanzapine

One small trial (n = 29) reported useable data for the comparison risperidone versus olanzapine. No effect was observed for agitation measured as PANSS-PAS endpoint score at two hours (MD 2.50, 95% CI -2.46 to 7.46; very low-quality evidence); need to use restraints at four days (RR 1.43, 95% CI 0.39 to 5.28; very-low quality evidence); specific movement disorders measured as Behavioural Activity Rating Scale (BARS) endpoint score at four days (MD 0.20, 95% CI -0.43 to 0.83; very low-quality evidence).

Risperidone versus quetiapine

One trial reported (n = 40) useable data for the comparison risperidone versus quetiapine. Aggression was measured using the Modified Overt Aggression Scale (MOAS) endpoint score at two weeks. A clear difference, favouring quetiapine was observed (MD 1.80, 95% CI 0.20 to 3.40; very-low quality evidence). No evidence of a difference between treatment groups could be observed for incidence of akathisia after 24 hours (RR 1.67, 95% CI 0.46 to 6.06; very low-quality evidence). Two participants allocated to risperidone and one allocated to quetiapine experienced myocardial ischaemia during the trial.

Risperidone versus risperidone + oxcarbazepine

One trial (n = 68) measured agitation using the Positive and Negative Syndrome Scale - Excited Component. (PANSS-EC) endpoint score and found a clear difference, favouring the combination treatment at one week (MD 2.70, 95% CI 0.42 to 4.98; very low-quality evidence), but no effect was observed for global state using Clinical Global Impression - Improvement (CGI-I) endpoint score at one week (MD -0.20, 95% CI -0.61 to 0.21; very-low quality evidence). Incidence of extrapyramidal symptoms after 24 hours was similar between treatment groups (RR 1.59, 95% CI 0.49 to 5.14; very-low quality evidence).

Risperidone versus risperidone + valproic acid

Two trials compared risperidone with a combination of risperidone plus valproic acid. No clear differences between the treatment groups were observed for aggression (MOAS endpoint score at three days: MD 1.07, 95% CI -0.20 to 2.34; participants = 54; studies = 1; very low-quality evidence) or incidence of akathisia after 24 hours: RR 0.75, 95% CI 0.28 to 2.03; participants = 122; studies = 2; very low-quality evidence).

Authors' conclusions

Overall, results for the main outcomes show no real effect for risperidone. The only data available for use in this review are from nine undersampled trials and the evidence available is of very low quality. This casts uncertainty on the role of risperidone in rapid tranquillisation for people with psychosis-induced aggression. High-quality pragmatic RCTs are feasible and are needed before clear recommendations can be drawn on the use of risperidone for psychosis-induced aggression or agitation.

PLAIN LANGUAGE SUMMARY

Risperidone as a means of calming people who are aggressive or agitated due to psychosis

Background

People with psychosis may experience hearing voices (hallucinations) or abnormal thoughts (delusions), which can make the person frightened, distressed, and agitated. Experiencing such emotions can sometimes lead to aggressive behaviour. This poses a challenge and dilemma for staff. Mental health professionals have to diagnose and deliver the best available treatment to prevent the risk of harm to both the patient and/or others, the faster the better. Risperidone is a medication taken by mouth, widely used for treating people manage the symptoms of psychosis. As well as being an antipsychotic (preventing psychosis), it also could calm people down or help them to sleep.

Aim of the review

This review looks at whether the antipsychotic, risperidone, could be a fast, effective treatment for people who are agitated or aggressive as a result of having psychosis.

Searches



The Information Specialist of Cochrane Schizophrenia ran searches of their specialised register for randomised trials that looked at the effects of giving risperidone alone compared with giving either placebo (dummy treatment) or other treatments to people who are aggressive or agitated as a results of having psychosis. The latest date of searching was April 2017.

Results

Nine studies, with 582 participants, are included in the review but the information provided is poor in quality and tended to provide information only partially relevant to the main aim of this review, particularly a lack of information regarding immediate (i.e. under one hour after treatment) calming effects and the need for repeated tranquillisation. Economic data were also not reported. In the trials, risperidone was compared to other antipsychotics, which included haloperidol, olanzapine and quetiapine. The review found risperidone was no better or worse than haloperidol for calming aggression within 24 hours, and that two weeks after treatment, people receiving risperidone had higher (worse) scores on scales measuring levels of aggression than those receiving quetiapine. Both these results, however, were graded as very low-quality evidence. One small study found a combination of antipsychotics (risperidone plus oxcarbazepine) was better than risperidone alone at reducing levels of agitation but these data were collected after one week and again, this evidence was rated as very low quality. No clear differences in the incidence of side effects such as movement disorders were observed.

Conclusions

The review authors conclude that at the moment, there is weak, unclear evidence regarding the use of risperidone for calming people who are aggressive due to psychosis, and no firm conclusions can be made. Therefore, health professionals and people with mental health problems are left without clear evidence-based guidance. However, good quality trials are possible and more research is needed to help people dealing with psychosis-induced aggression consider and understand which medication is better at calming aggression, has fewer side effects and works quickly.