COCHRANE CORNER

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

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† This review is an abridged version of a Cochrane review previously published in the *Cochrane Database of Systematic Reviews*, 2018, April 10, Issue 4: CD009412 (doi: 10.1002/14651858.CD009412.pub2) (see www.Cochranelibrary.com for information). Cochrane reviews are regularly updated as new evidence emerges and in response to feedback, and the Cochrane Database of Systematic Reviews should be consulted for the most recent version of the review.

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See commentary in this issue.

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' table.

Main results

The review now contains data from nine trials (total $n = 582$) reporting on five comparisons. Owing 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 usable data on our primary outcome 'tranquillisation or asleep' by 30 min, 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-h 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 Subscale (PANSS-PAS) score (RR = 1.04, 95% CI 0.86–1.26; participants = 124; studies = 1; very-low-quality evidence) and no effect was observed for need to use restraints (RR = 2.00, 95% CI 0.43–9.21; participants = 28; studies = 1; very-low-quality evidence). Incidence of adverse effects was similar between treatment groups (RR = 0.94, 95% CI 0.54–1.66; participants = 124; studies = 1; very-low-quality evidence).

Risperidone versus olanzapine

One small trial ($n = 29$) reported usable data for the comparison risperidone versus olanzapine. No effect was observed for agitation measured as PANSS-PAS endpoint score at 2 hours (MD = 2.50, 95% CI –2.46 to 7.46; very-low-quality evidence); need to use restraints at 4 days (RR = 1.43, 95% CI 0.39–5.28; very-low-quality evidence); specific movement disorders measured as Behavioural Activity Rating Scale (BARS) endpoint score at 4 days (MD = 0.20, 95% CI –0.43 to 0.83; very-low-quality evidence).

Risperidone versus quetiapine

One trial ($n = 40$) reported usable data for the comparison risperidone versus quetiapine. Aggression was measured using the Modified Overt Aggression Scale (MOAS) endpoint score at 2 weeks. A clear difference favouring quetiapine was observed (MD = 1.80, 95% CI 0.20–3.40; very-low-quality evidence). No evidence of a difference between treatment groups could be observed for incidence of akathisia after 24 h (RR = 1.67, 95% CI 0.46–6.06; 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 1 week (MD = 2.70, 95% CI 0.42–4.98; very-low-quality evidence), but no effect was observed for global state using the Clinical Global Impression – Improvement (CGI-I) endpoint score at 1 week (MD = –0.20, 95% CI –0.61 to 0.21; very-low-quality evidence). Incidence of extrapyramidal symptoms after 24 h was similar between treatment groups (RR = 1.59, 95% CI 0.49–5.14; 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 3 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 h: RR = 0.75, 95% CI 0.28–2.03; 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 under-sampled 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.