Introduction

- Early intervention is fundamental for better treatment response and long-term outcomes in schizophrenia.
- However, there is little guidance in the scientific literature on how best to choose between dopamine D2 receptor (D2R) partial agonists and D2R antagonists for early psychosis.
- In this meta-analysis, D2R partial agonists were directly compared with D2R antagonists for efficacy and tolerability in the early course of schizophrenia.

Methods

- MEDLINE, Embase, PsycINFO, and ClinicalTrials.gov databases were searched up to 15 July 2020, with no language restriction.
- Inclusion criteria: 1) randomized controlled trials (RCTs) that compared D2R partial agonists with D2R antagonists for efficacy and tolerability and 2) diagnosis of first-episode psychosis or 3) diagnosis of schizophrenia or related psychotic disorders with a duration of illness ≤5 years or with no history of antipsychotic treatment.
- Overall symptom reduction was the primary outcome.
- Other efficacy and tolerability (e.g., adverse effects) outcomes were examined as secondary variables.
- Data were analyzed, using Cochrane RevMan 5.3, in a random-effects model to calculate standardized mean differences (SMDs) or risk ratios (RRs) with 95% confidence intervals (CIs).

Results

- Fourteen RCTs, involving 2494 patients, were included (Fig. 1).
- Aripiprazole was the only identified D2R partial agonist.
- Allocation concealment and blinding were most frequent regarding risk of bias (Fig. 2).
- Aripiprazole was not significantly different from pooled D2R antagonists regarding overall symptom reduction (SMD = 0.05, 95% CI = 0.27 to 0.18) (Fig. 3).

Conclusions

- Our study found comparable efficacy between aripiprazole and D2R antagonists in the early course of schizophrenia.
- Aripiprazole may be more favorable for other symptom domains (e.g., depressive symptoms), and differential tolerability profiles were observed.
- More double-blind RCTs examining comparative effects of aripiprazole and other D2R partial agonists in the early course of schizophrenia are required.