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Antipsychotic Medication for Childhood-Onset Schizophrenia

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Childhood-onset schizophrenia is defined as schizophrenia with onset prior to the age of 13 years. Although it is rare, those who suffer from schizophrenia at an early age appear to have a clinically severe form of the illness with a poor long-term prognosis. Antipsychotic medication is one way of managing this rare but serious mental illness. A new Cochrane review examines antipsychotic medication for childhood-onset schizophrenia.[1]

Objective

To determine the effects of antipsychotic medication in the treatment of childhood-onset schizophrenia.

Search Strategy

We searched the Cochrane Schizophrenia Group Trials Register (February 2007), inspected references of all identified studies for further trials, and contacted relevant pharmaceutical companies and authors of trials for additional information.

Selection Criteria

We included all randomized clinical trials involving children and young people with a diagnosis of childhood-onset schizophrenia (ie, with a diagnosis of schizophrenia before the age of 13) comparing any antipsychotic drug with another antipsychotic or placebo.

Data Collection and Analysis

Studies were reliably selected, quality assessed, and data extracted. For homogenous dichotomous data, we calculated random effects, relative risk (RR) and its 95% confidence interval (CI), and, where appropriate, number needed to treat on an intention-to-treat basis. For normal continuous data, we calculated the weighted mean difference (WMD).

Main Results

From a total of 2062 citations, 6 relevant trials were identified. These studies were small (total $N = 256$ participants) and short (all duration 12 weeks or less) and reported data for 3 comparisons (atypical vs. typical, atypical vs atypical, and typical vs. typical antipsychotic drugs), only one of which (atypical vs. typical) was to suggest differences between treatment groups.

A few results from one study favored the atypical antipsychotic clozapine over haloperidol for treating treatment-resistant childhood-onset schizophrenia ($n = 21$, WMD children's global assesment scale 17.00, CI 7.74–26.26; $n = 21$, WMD Bunney-Hamburg Psychosis Rating Scale −3.60, CI −6.64 to −0.56). Participants on clozapine, however, were 3 times more likely to have drowsiness (1 randomized controlled trial [RCT], $n = 21$, RR 3.3, CI 1.2–8.9, number needed to harm 2, CI 2–17) and half of the children receiving clozapine in this small short study experienced neutropenia (1 RCT, $n = 21$, RR 12, CI 0.75–193; figure 1).

Reviewers' Conclusions

There are few relevant trials and, presently, little conclusive evidence regarding the effects of antipsychotic medication for those with the rare but difficult problem of very early-onset schizophrenia. Some benefits were identified in using the atypical antipsychotic clozapine compared with haloperidol, but the benefits were offset by an increased risk of serious adverse effects.

Implications for Practice

As yet there are few data to support the use of one antipsychotic medication over another in the treatment of schizophrenia with onset in childhood. The superiority of atypical antipsychotic medications over typical antipsychotic drugs is not reflected in studies using typical medications such as chlorpromazine as the comparator medication, rather than haloperidol. Routine practice may be best within the context of an evaluative trial.

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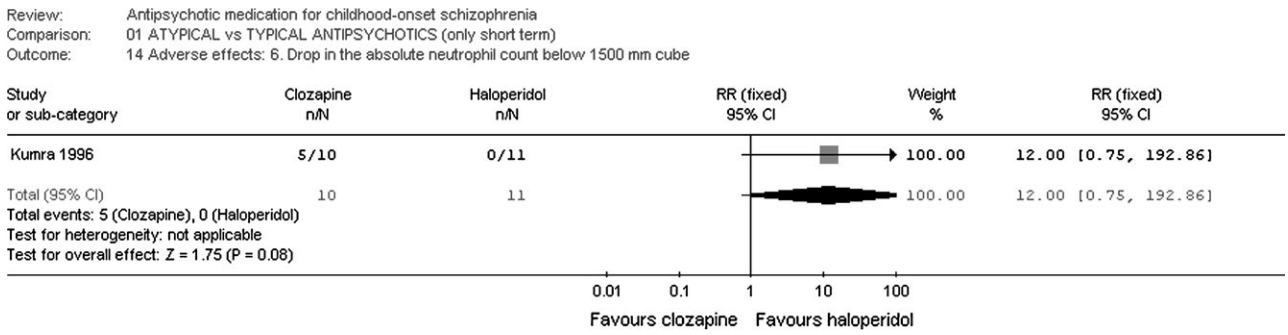

Fig. 1. Clozapine vs Haloperidol—Neutropenia.

Implications for Research

Further RCTs with larger samples and longer treatment duration are needed to evaluate the effectiveness and safety of antipsychotic medication in the treatment of childhood-onset schizophrenia. There has been no significant increase in the number of trials in the last 3 decades possibly reflecting the challenges of undertaking research with this age group. Given the relative rarity of childhood-onset schizophrenia, future treatment studies will require multicenter collaboration and extensive case-finding efforts.

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Reference

1. Kennedy E, Kumar A, Datta SS. Antipsychotic medication for childhood-onset schizophrenia. *Cochrane Database Syst Rev*; 2007;Disc issue 3. Chichester, UK: John Wiley & sons.