Fluphenazine (Oral) Versus Placebo for Schizophrenia

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Fluphenazine, a phenothiazine derivative, was one of the first drugs to be classed as an “antipsychotic” and was approved by the Food and Drug Administration in 1959. In Britain, it was first used for the relief of anxiety. The American reports, however, were the first to indicate its value in psychotic illness. Fluphenazine is an inexpensive and widely accessible antipsychotic drug that has been available to treat people with schizophrenia for five decades. We updated our original search (from September 2006) using The Cochrane Schizophrenia Group Trials register (May 2012); we found no new relevant studies.

Seven randomized controlled trials (RCTs) were included with a total of N = 439 participants. Results, based on this small selection of studies, suggested that there was no significant difference between oral fluphenazine and placebo for most outcomes, including global state and leaving the study early. Results did suggest a statistically significant effect favoring oral fluphenazine in the short term for levels of relapse (n = 38, 1 RCT, RR 0.25 CI 0.06–1.03) with levels of extrapyramidal adverse effects more frequent with oral fluphenazine. The findings in this review confirm much that clinicians and recipients of care already know, but they provide quantification to support clinical impression. In this review, for perhaps the first time, we objectively quantified the effects of oral administration of fluphenazine in comparison with placebo. It is indeed a potent antipsychotic but with considerable adverse effects. Other drugs may well be preferable.

Key words: oral fluphenazine/systematic review/meta-analysis/schizophrenia

Background

Fluphenazine is one of the first drugs to be classed as an “antipsychotic” and has been widely available for 5 decades.

Objectives

To compare the effects of oral fluphenazine with placebo for the treatment of schizophrenia.

Search Methods

We updated searches of the Cochrane Schizophrenia Group’s trials register, which includes relevant randomized controlled trials (RCTs) from the bibliographic databases Biological Abstracts, CINAHL, The Central Register of Controlled Trials in The Cochrane Library, EMBASE, MEDLINE, PsycLIT, LILACS, PSYNDEX, Sociological Abstracts and Sociofile, May 15, 2012. References of all identified studies were searched for further trial citations.

Selection Criteria

We sought all RCTs comparing oral fluphenazine with placebo relevant to people with schizophrenia. Primary outcomes of interest were global state and adverse effects.

Data Collection and Analysis

We inspected citations and abstracts independently, ordered papers, and reinspected and quality assessed trials. We extracted data independently. Dichotomous data were analyzed using fixed-effect risk ratio (RR) and the 95% confidence interval (CI). Continuous data were excluded if more than 50% of people were lost to follow-up, but, where possible, mean differences were calculated.

Results

From over 1200 electronic records of 415 studies identified by our initial search and this updated search, we
Matar et al. excluded 48 potentially relevant studies and included 7 trials published between 1964 and 1999 that randomized 439 (mostly adult) participants. No new included trials were identified for this review update. Compared with placebo, global state outcomes of “not improved or worsened” were not significantly different in the medium term in 1 small study (n = 50, 1 RCT, RR 1.12 CI 0.79–1.58, very low quality of evidence, figure 1). The risk of relapse in the long term was greater in 2 small studies in people receiving placebo (n = 86, 2 RCTs, RR 0.39 CI 0.05–3.31, very low quality of evidence), however, with high degree of heterogeneity in the results. Only one person allocated fluphenazine was reported in the same small study to have died on long-term follow-up (n = 50, 1 RCT, RR 2.38 CI 0.10–55.72, low quality of evidence). Short-term extrapyramidal adverse effects were significantly more frequent with fluphenazine compared with placebo in 2 other studies for the outcomes of akathisia (n = 227, 2 RCTs, RR 3.43 CI 1.23–9.56, moderate quality of evidence) and rigidity (n = 227, 2 RCTs, RR 3.54 CI 1.76–7.14, moderate quality of evidence).

Authors’ Conclusions

The findings in this review confirm much that clinicians and recipients of care already know, but they provide quantification to support clinical impression. Fluphenazine’s global position as an effective treatment for psychoses is not threatened by the outcome of this review. However, fluphenazine is an imperfect treatment, and if accessible, other inexpensive drugs less associated with adverse effects may be an equally effective choice for people with schizophrenia. For full details please see (Matar et al.).

Reference