Antipsychotics for acute and chronic pain in adults

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ABSTRACT

Background

This is an updated version of the original Cochrane review published in Issue 4, 2008. The role of antipsychotics as adjuvant analgesics is a subject of longstanding controversy. Neuroleptanalgesia (that is a state of quiescence, altered awareness, and analgesia produced by a combination of taking an opioid analgesic and an antipsychotic), an established term for the management of acute pain, was shown to negatively influence disease course and total mortality in unstable angina patients. Nevertheless, antipsychotics are used to treat chronic pain (for example chronic headache, fibromyalgia and diabetic neuropathia). With atypical antipsychotics, a new class of antipsychotics, both fewer extrapyramidal side effects and additional benefits may be available.

Objectives

To assess the analgesic efficacy and adverse effects of antipsychotics in acute or chronic pain in adults.

Search methods

We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, PsycINFO, and EMBASE in October 2011 and January 2013.

Selection criteria

Randomised controlled trials (RCTs) of adults prescribed any dose of an oral antipsychotic for acute or chronic pain, where subjective pain assessment was described as either the primary or a secondary outcome, were included in this review.

Data collection and analysis

Data were extracted by two independent review authors, and results were compared for differences. Discrepancies were resolved by discussion. All trials were quality scored according to the methods set out in section six of the Cochrane Handbook for Systematic Reviews of Interventions.
Main results

A total of 770 participants were involved in the 11 included studies. Data from five included randomised double-blind studies showed beneficial effects of antipsychotics in the treatment of acute and chronic pain. Quantitative analysis of these studies showed a significant reduction of mean pain intensity after administration of the antipsychotic compared to placebo or another active compound, weighted mean difference (WMD) -1.78 (95% CI -2.71 to -0.85) for the continuous data; and relative risk (RR) 0.43 (95% CI 0.25 to 0.73), number needed to treat to benefit (NNT) 2.6 for the dichotomous data. Nevertheless, the test for heterogeneity was significant for both the continuous data (P = 0.0007) and the dichotomous data (P = 0.04). Obviously this makes the calculated NNT less reliable and caution is warranted when interpreting these results.

The most frequently reported adverse effects were extrapyramidal (that is involuntary movements, parkinsonism and akathisia) and sedating effects.

Authors' conclusions

The recent search found five new studies which were all excluded, so the review remains the same as previously.

Antipsychotics might be used as an add-on therapy in the treatment of painful conditions. Nevertheless, extrapyramidal and sedating side effects have to be considered before using antipsychotics for treating painful conditions.

Results for antipsychotics in the treatment of different painful conditions are mixed and most sample sizes in the reviewed RCTs are small. Further studies on atypical antipsychotics in larger double-blind placebo-controlled studies that include standardised pain assessment and documentation are warranted.

Plain Language Summary

Analgesic effects of antipsychotics in acute and chronic painful states

Medicines called ‘antipsychotics’, which are used to treat some mental health conditions, are sometimes used to treat chronic pain. A new type of these medicines called ‘atypical antipsychotics’ is available, with fewer side effects and some additional benefits. The review authors assessed the effect of these medicines on pain and their side effects. Based on 5 out of 11 included trials there were some beneficial effects of antipsychotics in the treatment of acute and chronic pain. Analysis of these studies showed a significant reduction in pain after administration of the antipsychotic compared to placebo or another medicine, however these results were based on small studies and therefore they may be unreliable. It is also important to consider the unwanted effects that these medicines might cause.