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[Intervention Review]

Antipsychotics for acute and chronic pain in adults

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ABSTRACT

Background

The role of antipsychotics as adjuvant analgesics is a subject of longstanding controversy. Neuroleptanalgesia (i.e. 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 (e.g. chronic headache, fibromyalgia and diabetic neuropathia). With atypical antipsychotics, a new class of antipsychotics, fewer extrapyramidal side effects and additional benefits may be available.

Objectives

Assess analgesic efficacy and adverse effects of antipsychotics in acute or chronic pain.

Search methods

Cochrane Pain, Palliative & Supportive Care Register, CENTRAL, MEDLINE, PsycINFO, and EMBASE searched in October 2007.

Selection criteria

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

Data collection and analysis

Data was 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.

Main results

A total of 770 participants were involved in the eleven 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 the continuous data (P = 0.0007) and the dichotomous data (P = 0.04). The most frequently reported adverse effects were extrapyramidal (i.e. involuntary movements, parkinsonism and akathisia) and sedating effects.

Authors' conclusions

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 including standardised pain assessment/ documentation are warranted.

PLAIN LANGUAGE SUMMARY

Analgesic effects of antipsychotics in acute and chronic painful states

Antipsychotics are used in different chronic pain states (e.g. chronic headache, fibromyalgia and diabetic neuropathia). With atypical antipsychotics a new class of antipsychotics is available, with lesser extrapyramidal side effects and additional benefits. The review authors assessed the analgesic efficacy and adverse effects of antipsychotics (also known as neuroleptics) as reported in randomised controlled trials (RCTs) of adults prescribed any dose of oral antipsychotics for acute or chronic pain. Data from five of eleven included double-blind RCTs 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. Nevertheless, extrapyramidal and sedating side effects have to be considered before using antipsychotics for the treatment of painful conditions. Results for antipsychotics in the treatment of different painful conditions are mixed and most sample sizes in the reviewed double-blind RCTs are small. Further studies on atypical antipsychotics in larger double-blind placebo-controlled studies including standardised pain assessment are warranted.