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[Intervention Review]

Single dose oral etoricoxib for acute postoperative pain in adults

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ABSTRACT

Background

Etoricoxib is a selective cyclo-oxygenase-2 (COX-2) inhibitor licensed for the relief of chronic pain in osteoarthritis and rheumatoid arthritis, and acute pain in some jurisdictions. This class of drugs is believed to be associated with fewer upper gastrointestinal adverse effects than conventional non-steroidal anti-inflammatory drugs (NSAIDs). One additional study in acute postoperative pain has been published since the original review was completed in Issue 2, 2009.

Objectives

To assess the analgesic efficacy and adverse effects of a single oral dose of etoricoxib for moderate to severe postoperative pain.

Search methods

We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, the Oxford Pain Database, ClinicalTrials.gov, and reference lists of articles. The date of the most recent search was 3 January 2012.

Selection criteria

Randomised, double-blind, placebo-controlled clinical trials of single dose, oral etoricoxib for acute postoperative pain in adults.

Data collection and analysis

Two review authors independently considered trials for inclusion in the review, assessed quality, and extracted data. We used the area under the pain relief versus time curve to derive the proportion of participants prescribed etoricoxib or placebo with at least 50% pain relief over six hours, using validated equations. We calculated relative risk (RR) and number needed to treat to benefit (NNT). We used information on use of rescue medication to calculate the proportion of participants requiring rescue medication and the weighted mean of the median time to use. We also collected information on adverse effects.

Main results

One additional study has been added to this updated review, making a total of six included studies with 1214 participants in comparisons of etoricoxib with placebo. All six studies reported on the 120 mg dose (798 participants in a comparison with placebo). At least 50% pain relief was reported by 66% with etoricoxib 120 mg and 12% with placebo (NNT 1.8 (1.7 to 2.0)). For dental studies only the NNT was 1.6 (1.5 to 1.8). Although the new study almost doubled the number of participants in included studies it added only about 25% more data for the 120 mg dose and the result was unchanged. Other doses (60, 90, 180, and 240 mg) were each studied in only one treatment arm and we did not undertake pooled analysis.

Significantly fewer participants used rescue medication over 24 hours when taking etoricoxib 120 mg than placebo (NNT to prevent remedication 2.2 (1.9 to 2.8)), and the median time to use of rescue medication was 20 hours for etoricoxib and two hours for placebo. Adverse events were reported at a similar rate to placebo, with no serious events.

Authors' conclusions

The additional study did not change the results from the first review published in 2009, but does make the result more robust. Single dose oral etoricoxib produces high levels of good quality pain relief after surgery and adverse events did not differ from placebo. The 120 mg dose is as effective as, or better than, other commonly used analgesics.

PLAIN LANGUAGE SUMMARY

Single dose oral etoricoxib for acute pain relief in adults experiencing moderate or severe pain following a surgical procedure

Etoricoxib is a non-steroidal anti-inflammatory drug (NSAID) which produces relief of pain in a number of different painful conditions. This review looked at how good etoricoxib was in relieving moderate or severe pain following surgery. Six studies provided information. Etoricoxib 120 mg provided effective pain relief for almost 7 in 10 (66%) of participants, compared with just over 1 in 10 (12%) of participants with placebo. The duration of pain relief was much longer with etoricoxib, at over 20 hours, compared with two hours with placebo, making it one of the most effective oral analgesics in acute pain. Adverse events occurred at similar rates with etoricoxib and placebo. No serious adverse events or withdrawals due to adverse events occurred with etoricoxib.