Single dose dipyrone for acute renal colic pain
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Authors’ objectives
Background: Renal colic pain is extremely painful and requires immediate treatment with strong analgesics. Dipyrone is the most popular non-opioid first line analgesic in many countries but in others it has been banned (e.g. USA, UK) because of its association with blood dyscrasias such as agranulocytosis. Since dipyrone is used in many countries (e.g. Brazil, Spain) there is a need to determine the benefits and harms of its use to treat renal colic pain. Objectives: Assess quantitatively the analgesic efficacy and adverse effects of single-dose dipyrone in adults with moderate to severe renal colic pain. Search methods: Published reports were identified from electronic databases (MEDLINE, EMBASE, The Cochrane Library, LILACS) and additional studies were identified from the reference lists of retrieved reports. Date of the most recent search: January 2000. Selection criteria: Inclusion criteria were: full journal publication; RCT with a double-blind design; adult patients with baseline renal colic pain of moderate or severe intensity; treatment arms which included dipyrone (oral, intramuscular or intravenous administration) and a control; single dose data. Data collection and analysis: Summed pain intensity and pain relief data were extracted and converted into dichotomous information to yield the number of patients with at least 50% pain relief over 15-30 minutes, 1-2 hours and six hours. The proportion of patients with at least 50% pain relief was calculated. Single dose adverse effect data were collected. Main results: Eleven studies with 1053 patients (550 on dipyrone) met the inclusion criteria. Unfortunately, few data were available for analysis; most analyses were based on the results of single, small trials and statistical pooling of the results was inappropriate. Efficacy estimates were calculated as the weighted mean percent of patients achieving at least 50% pain relief with the range of values from trials contributing to the analysis. However, these estimates were not robust. Commonly reported adverse effects with intravenous dipyrone were dry mouth and somnolence, and one study reported pain at the injection site. Insufficient information was available for safety analyses. Authors’ conclusions: Limited available data indicated that single dose dipyrone was of similar efficacy to other analgesics used in renal colic pain, although intramuscular dipyrone was less effective than diclofenac 75 mg. Combining dipyrone with antispasmodic agents did not appear to improve its efficacy. Intravenous dipyrone was more effective than intramuscular dipyrone. Dry mouth and somnolence were commonly reported with intravenous dipyrone. None of the studies reported agranulocytosis. US: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003867/abstract

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