Dexketoprofen-induced antinociception in animal models of acute pain: Synergy with morphine and paracetamol

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The antinociceptive activity of dexketoprofen was studied in mice using the acetic acid writhing test (acute tonic pain), the tail flick test (acute phasic pain) and the formalin assay (inflammatory pain). Isobolographic analysis was used to study the antinociceptive interactions between morphine and paracetamol co-administered with dexketoprofen. In the writhing test, the intraperitoneal administration of dexketoprofen or ketoprofen resulted in parallel dose-response curves with equal efficacy, but higher relative potency for dexketoprofen. In the tail flick test, the curves were parallel with similar efficacy and potency. The administration of morphine or paracetamol in both tests resulted in dose-response curves not parallel with that of dexketoprofen, which showed a potency between morphine and paracetamol. In the formalin assay, the antinociceptive activity of morphine during phase I was 122, 295 and 1695 times higher than dexketoprofen, ketoprofen and paracetamol, respectively. I