

Effects of tramadol and dexketoprofen on analgesia and gastrointestinal transit in mice

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The purpose of the present study was to evaluate the nature of the antinociceptive interaction among dexketoprofen (DEX), a mixed inhibitor of the cyclo-oxygenases, and tramadol (TRAM), a weak opioid with monoaminergic activity that inhibits norepinephrine and serotonin re-uptake. We assessed antinociception in the acetic acid writhing test, the tail flick and the formalin (FT) tests, and gastrointestinal transit (GIT) after the administration of a charcoal meal. The analysis of the interaction was carried out using isobolograms and interaction indexes or the fixed-dose method GIT. The administration of DEX or TRAM individually induced dose-dependent antinociception in all the algesiometric tests. In the three tests, TRAM was between 5.2 (FT, phase I) and 35 times (FT, Phase II) more potent than DEX. When testing combinations at different potency ratios (1 : 1, 1 : 3, 3 : 1), we could demonstrate synergy in all algesiometric tests, only when drugs were combined in a 1 : 1 proportion. |