

Atropine reverses the antinociception of nonsteroidal anti-inflammatory drugs in the tail-flick test of mice

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The nonsteroidal anti-inflammatory drugs (NSAIDs) clonixin, diclofenac, piroxicam, ketoprofen, meloxicam, and paracetamol induced antinociception after intraperitoneal or intrathecal administration in mice submitted to an acute thermal algometric test without inflammation (tail-flick). Antinociception was evaluated by the increase in reaction time difference (? latency), between readings obtained before and after the administration of drugs. The antinociception induced by doses of NSAIDs producing between 20% and 30% of the maximum possible effect (MPE) 30 min after intraperitoneal and 15 min after intrathecal injections was compared with the antinociception obtained after pretreatment with 1 mg/kg atropine ip, 30 min before. Systemic atropine (1 mg/kg) significantly antagonized NSAID-induced antinociception in all cases, both after intraperitoneal and intrathecal administration. Cholinergic depletion by intracerebroventricular hemicholinium-3 (HC-3, 5 ?g) 5 h before prevented the a