

Antinociceptive and anti-exudative synergism between dexketoprofen and tramadol in a model of inflammatory pain in mice

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Preclinical studies have demonstrated antinociceptive synergism between dexketoprofen (DEX) and tramadol (TRM) in acute animal models of nociception. The aim of the present study was to investigate the type of interaction between DEX and TRM in a chronic musculoskeletal pain model in mice, which fairly replicates the characteristics of chronic osteoarticular pain in humans.

Inflammation was induced by a subplantar injection of complete Freund's adjuvant (CFA) in male CF1 mice. Nociceptive thresholds were evaluated using the hot plate, the nocifensive spontaneous behavior and the acetone tests, while plasma extravasation (PE) was assessed with Evan's blue.

We used the following experimental groups: control (no inflammation), acute (1 day after CFA injection), and chronic inflammation (7 days after CFA). Dose-response curves for DEX and TRM, individually and combined in a 1:1 proportion based on their potency were obtained, and the doses that produced a 50% inhibition calculated. The isobo