

# Synergism between dexketoprofen and meloxicam in an orofacial formalin test was not modified by opioid antagonists

Gonzalez, Claudia

Zegpi, Carlos

Noriega, Viviana

Prieto, Juan C.

Miranda, Hugo F.

Non-steroidal anti-inflammatory drugs (NSAIDs) are among the most widely used drugs for the management of acute and chronic pain. The role of the opioid system in the synergism between NSAIDs is not well characterized. Mice were injected with a 5% formalin solution (20  $\mu$ l) into the upper right lip to perform an orofacial formalin test. The isobolographic method was used to determine the interaction between dexketoprofen, which is the (S)-(+)-enantiomer of ketoprofen, and meloxicam co-administration. Additionally, the non-selective, opioid antagonist naltrexone, the selective  $\mu$  opioid receptor (DOP) antagonist naltrindole and the selective  $\kappa$  opioid receptor (KOP) antagonist norbinaltorphimine were used to assess the opioid effects on this interaction. Intraperitoneal administration of dexketoprofen or meloxicam induced dose-dependent antinociception with different phase I and phase II potencies in the orofacial formalin test. Meloxicam displayed similar potencies (ED<sub>50</sub>) in phase I (7.20 mg