



Anti-inflammatory and Gastric Effects of D-002, Aspirin and Naproxen and their Combined Therapy in Rats with Cotton Pellet-Induced Granuloma

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SUMMARY. D-002, a mixture of six beeswax alcohols, with gastroprotective and anti-inflammatory effects, was compared with naproxen, aspirin and their combined therapy in rats with cotton pellet granuloma. After pellet implantation, rats were randomized into seven groups, a vehicle control and treated with (mg/kg): D-002 (50 and 200), naproxen (10 and 25) and aspirin (150 and 300). Other group of implanted rats was randomized into six groups, vehicle control and treated with D-002 50, naproxen 10, aspirin 150, D-002 50 + aspirin 150, or D-002 50 + naproxen 10. Granuloma weights decreased with all treatments, the effects of the highest doses were 38 % (D-002), 42 % (naproxen) and 42 % (aspirin). The combinations were not greater than those of each monotherapy. Aspirin and naproxen, not D-002, induced gastric ulceration. D-002 + naproxen or aspirin significantly decreased ulcers by 69.8 % and 67.3 %, respectively. Then, D-002, aspirin and naproxen were similarly effective for reducing the cotton granuloma in rats. The combination therapies D-002 + naproxen or aspirin did not produce greater anti-inflammatory effects, but reduced the NSAIDs-induced gastrotoxicity.

KEY WORDS: Aspirin, Anti-inflammatory, Combination therapy, D-002, Gastroprotection, Naproxen

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