

Abstract

In placebo-controlled cross-over trials in dogs, two 'identical' operations were performed on the forelimbs of each animal with an interval of 28 days, to evaluate how daily doses of 1.5 g paracetamol, 1.5 g acetylsalicylic acid (ASA) and 0.5 g ASA might modulate an acute post-operative inflammatory reaction. On the third post-operative day the reductions in swelling compared with placebo averaged 33% with 1.5 g paracetamol ($P = 0.02$), 24% with 1.5 g ASA ($P = 0.03$) and 15% with 0.5 g ASA ($P = 0.18$); while the reductions in pain estimates averaged 47% with 1.5 g paracetamol ($P = 0.01$), 32% with 1.5 g ASA ($P = 0.07$) and 28% with 0.5 g ASA ($P = 0.21$). There were no clinical signs of adverse drug effects, such as vomiting, haematochezia, cyanosis or depression. The results disagree with the traditional view that paracetamol has little or no anti-inflammatory effect, and demonstrate that paracetamol may reduce an acute inflammatory reaction, at least as efficiently as ASA. The potential proinflammatory effect of ASA in low doses is discussed. It is concluded that paracetamol appears to be a valuable drug against post-operative or post-traumatic sequelae in the veterinary as well as in the human clinic.