

Abstract

The antinociceptive and behavioral effects of pethidine (10, 20, or 30 mg/kg), acetylsalicylic acid (200, 400, or 600 mg/kg) and indomethacin (20, 40, or 50 mg/kg) in the naked mole-rat was studied in the hot-plate test. Instead of inducing analgesia, pethidine caused a dose-dependent reduction in response latency. Sensorimotor impairment and aggressive behavior were also observed following administration of pethidine (20 or 30 mg/kg). All animals receiving pethidine (30 mg/kg) died following fighting when kept in colony cages. Aggressive behavior and death was prevented by naloxone or by keeping animals in single cages. Acetylsalicylic acid (600 mg/kg) and indomethacin (40 or 50 mg/kg) caused a significant increase in response latency. It is concluded that in the mole-rat pethidine elicits aggression, sensorimotor impairment, and apparent hypergesia.