

Abstract

Little is known about analgesia in lower vertebrates such as the Speke's hinged tortoise (*Kinixys spekii*), yet of late they are increasingly being adopted as pets. The effects of morphine (5, 7.5, 10 and 20 mg/kg), pethidine (10, 20, and 50 mg/kg) and naloxone (5 mg/kg) on nociception induced by the formalin test (12.5%, 100 μ L) were studied in the Speke's hinged tortoise. Formalin induced a monophasic limb retraction behavioural response and its duration was recorded. The behaviour lasted for 16.4 ± 0.8 min. Morphine (7.5, 10 and 20 mg/kg) and pethidine (20 and 50 mg/kg) induced significant decrease in the duration of limb retraction in the formalin test. The anti-nociceptive effects were naloxone (5 mg/kg) reversible. The data suggest that the formalin test is a good test for studying nociception and anti-nociception in tortoises and that the opioidergic system plays a role in the control of nociception in these animals.