Analgesic, Anti-Inflammatory and Antimicrobial Activities of Crinum augustum Rox. and Crinum asiaticum L

John Refaat, Mohamed S. Kamel, Mahmoud A. Ramadan, Ahmed A. Ali

Abstract:

Many Crinum species are traditionally used in different parts of the world for various local pains, inflammatory processes and microbial infections. In the present study, the total ethanolic extracts of C. augustum Rox. bulbs and C. asiaticum L. leaves were fractionated separately into five fractions each. The resulting fractions (400 mg/Kg, orally) of the total extract of C. augustum Rox. bulbs were evaluated for their analgesic and anti-inflammatory effects in mice using the hot plate and carrageenan-induced paw oedema tests versus acetyl salicylic acid (ASA) (100 mg/Kg, orally) and indomethacin (15 mg/Kg, orally), respectively. Fractions II, III and ASA showed the highest analgesic effects, whereas; II, III, IV and indomethacin were the highest anti-inflammatory ones at that tested doses. On the other hand, a comparative study of the antimicrobial activities of the total extracts of both plants together with their fractions (at 5, 10 and 50 mg/ml) showed inhibitory effects on S. aureus and E. coli, especially at 50 mg/ml. In addition, the per oral LD50 of the total extract of C. augustum Rox. bulbs were determined to be 1.6 g/Kg in mice.

Published In: