Suppression of nociception by Ocimum masaiense root extract involves

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Abstract

The members of genus Ocimum find wide application in traditional medicine. The current study was undertaken to evaluate the probable mechanisms of antinociceptive action of chloroform/ethanol extracts of Ocimum masaiense roots. The extract was prepared by soxhlet extraction. The mechanism of action experiments involved administration of various blockers along with the extract in the formalin test. Data was analyzed using Kruksal Wallis test. The extract possessed significant antiknociceptive activity in the formalin test. Atropine, enhanced while Ketamine, Capsaicin and Naloxone significantly inhibited the antinociceptive activity in the early phase. Only capsaicin had a significant inhibitory effect on the antinociceptive activity of the extract in the late phase among the substances tested. Based on the findings it is postulated that the extract mediates its antinociceptive activity via a complex interplay of various neurotransmitter syste-ms which may be mediated both centrally and peripherally.