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Flower extract of *Spilanthes acmella* possess analgesic and sedative activities in rats

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The aim of this study was to scientifically evaluate the analgesic and sedative potentials of fresh flowers of *Spilanthes acmella* Murr. (family: Compositae) which is used by some Sri Lankan traditional medical practitioners to suppress toothache. Different doses of a water extract of its fresh flowers (111, 335 and 671 mg kg⁻¹) were orally administered to male rats and its analgesic potential was determined at different post treatment periods (0.5 – 8.0 h) by using hot plate and tail flick tests. Sedative potential of the extract was evaluated by using rat hole board technique. The extract was well tolerated and treated animals did not show signs of overt toxicity (such as salivation, rhinorrhoea, lacrimation, convulsions, tremors, ataxia, diarrhoea, postural changes, abnormal behaviours) and stress (exophthalmia and erection of fur). A dose-dependent analgesic activity (in terms of prolonged reaction time) with a EC₅₀ = 313 mg kg⁻¹ was evident when evaluated in hot plate but not in tail flick test. This analgesic activity had a rapid onset (within 0.5 h) and short duration of action (up to 4.0h) and was not blocked by naloxone, an opioid receptor antagonist. The mid dose of the extract also induced significant sedation (in terms of rears by 87%, locomotor activity by 68% and head dips by 63%). It is concluded that the analgesic activity was mediated supra-spinally and was accompanied with sedation.