

An investigation of the anti-inflammatory and analgesic effects of Orthosiphon stamineus leaf extracts

Abstract

Anti-inflammatory and analgesic activities of a standardized Orthosiphon stamineus methanol:water (50:50 vol/vol) leaf extract (SEOS) were evaluated in animal models. Oral administration of SEOS at doses of 500 and 1,000 mg/kg significantly reduced the hind paw edema in rats at 3 and 5 hours after carrageenan administration ($P < .01$ and $P < .01$; $P < .01$ and $P < .05$, respectively). SEOS (1,000 mg/kg, p.o.) also produced significant ($P < .05$) analgesic activity in both the acetic acid-induced writhing test and the formalin-induced licking test (late phase) in mice and rats, respectively. However, SEOS showed no effect on the tail flick and hot plate tests in mice. The results of the present study support the proposal that *O. stamineus* has anti-inflammatory and non-narcotic analgesic activities. These findings justify the traditional use of the plant for treating pain and inflammation.

Keyword: Anti-inflammatory; Analgesic effect; Orthosiphon stamineus; leaf extract