Evaluation of the anti-pyretic potential of Orthosiphon stamineus Benth standardized extract.

Abstract

The anti-pyretic activity of a standardized methanol/water (50/50) extract of Orthosiphon stamineus Benth. (SEOS) was investigated for its effect on normal body temperature and yeast-induced pyrexia in Sprague Dawley (SD) rats. The SEOS showed no effect on normal body temperature. Doses of 500 and 1000 mg/kg body weight of SEOS significantly reduced the yeast-induced elevation in body temperature. This effect persisted up to 4 h following the administration of the extract. The anti-pyretic effect of SEOS was comparable with that of paracetamol (acetaminophen in U.S) (150 mg/kg p.o.), a standard anti-pyretic agent. HPLC study revealed that rosmarinic acid, sinensetin, eupatorin and tetramethoxyflavone were present in SEOS in the amounts of 7.58 %, 0.2 %, 0.34 % and 0.24 % respectively. The LD 50 of the extract in rats was higher than 5000 mg/kg body weight. Therefore, the present study ascertained that SEOS possesses a significant anti-pyretic activity.

Keyword: 3'-hydroxy-5,6,7,4'-tetramethoxyflavone; Antipyretic effect; Eupatorin; Orthosiphon stamineus; Rosmarinic acid; Sinensetin.