INTRODUCTION
Inflammation is considered as a primary physiological defense mechanism that helps body to protect itself against infection, burn, toxic chemicals, allergens or other noxious stimuli, an uncontrolled and persistent inflammation may act as an etiologic factor for many of these chronic illness. Although it is a defense mechanism, the complex events and mediators involved in the inflammatory reaction can easily be induced. Currently, both steroidal anti-inflammatory drugs (NSAIDs) are used in the relief of inflammation. Steroids have an obvious role in the treatment of inflammatory diseases, but due to their toxicity, can only be used over short periods. Prolonged use of NSAIDs is also associated with severe side effects. Therefore, the development of newer and more potent anti-inflammatory drugs with lesser side effects is necessary. 

Canscora perfoliata Lam. is one of the medicinally important plant belongs to Gentianaceae. The juice prepared from the plant is given to treat any poisonous bites by palliyar tribes of Grizzled Giant Squirrel Wildlife Sanctuary, Srivilliputhur, Western Ghats, Tamil Nadu. However, perusal of literature reveals that anti-inflammatory activity of Canscora perfoliata is totally lacking and hence the presence investigation was undertaken. The main objective of the present study is to evaluate the anti-inflammatory activity of Canscora perfoliata whole plant.

MATERIALS AND METHODS
Plant Material
The well grown and healthy whole plants of Canscora perfoliata Lam. were collected from the natural forests of Western Ghats at Thanniparai, Srivilliputhur, Virudhunagar District, Tamil Nadu. With the help of local flora, voucher specimens were identified and preserved in the Ethnopharmacology Unit, Research Department of Botany, V.O. Chidambaram College, Tuticorin, Tamil Nadu, for further reference.

Preparation of plant extract for anti-inflammatory activity
The dried whole plants of Canscora perfoliata were powdered in a Wiley mill. Hundred grams of plant powder was packed in a Soxhlet apparatus and extracted with ethanol. The ethanol extract was concentrated in a rotary evaporator. The concentrated ethanol extract was used for anti-inflammatory activity.
The anti-inflammatory activity of extract of *Canscora perfoliata* whole plant was evaluated by Carrageenan-induced paw edema method in Albino rats. In Carrageenan-induced paw edema model, *C. perfoliata* whole plant of 150 and 300 mg/kg caused significant inhibition of paw edema by 40.50% and 71.93% (p<0.001) respectively, 3 hours after carrageenan administration (Table 1).

**RESULTS**

In the present study, the anti-inflammatory activity of ethanol extract of *Canscora perfoliata* whole plant has been established. The extracts were found to significantly inhibit the carrageenan-induced rat paw edema, a test which has significant predictive value for anti-inflammatory agents acting by inhibiting the mediators of acute inflammation. Carrageenan induced inflammation is useful in detecting orally active anti-inflammatory agents. Edema formation due to carrageenan in the rat paw is a biphasic event. The initial phase is attributed to the release of histamine and serotonin. The whole plant extracts of *Canscorea perfolita* possessed varying degree of anti-inflammatory activity when tested at various doses of 150 and 300 mg/kg. The ethanol extract at the dose of 300mg/kg showed high anti-inflammatory activity at 3h, where it cause 68.43% inhibition, as compared to that of 10 mg/kg of indomethacin (76.87%). 5-Amyrin trimethylrily ether, phytol, Azulene, 1,2,3,5,6,7,8a, Octahydro-1,4-dimethyl-7(1-methylphenyl)-1S-(14,7α, 8α), cedarm-diol,8S, 14-, Hesperetin and cholestan-3-01,2-methylene-(3 α, 5 α)- were reported in the ethanol extract of *Canscora perfoliata* whole plant by GC-MS analysis. There compounds may have the role in anti-inflammatory effect. Further studies may reveal the extract mechanisms of action responsible for the anti-inflammatory activities of *Canscora perfoliata*.

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**REFERENCES**


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