

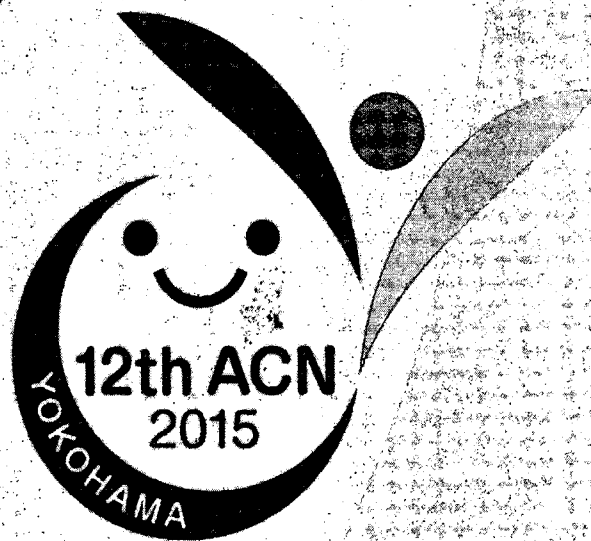
Category 2

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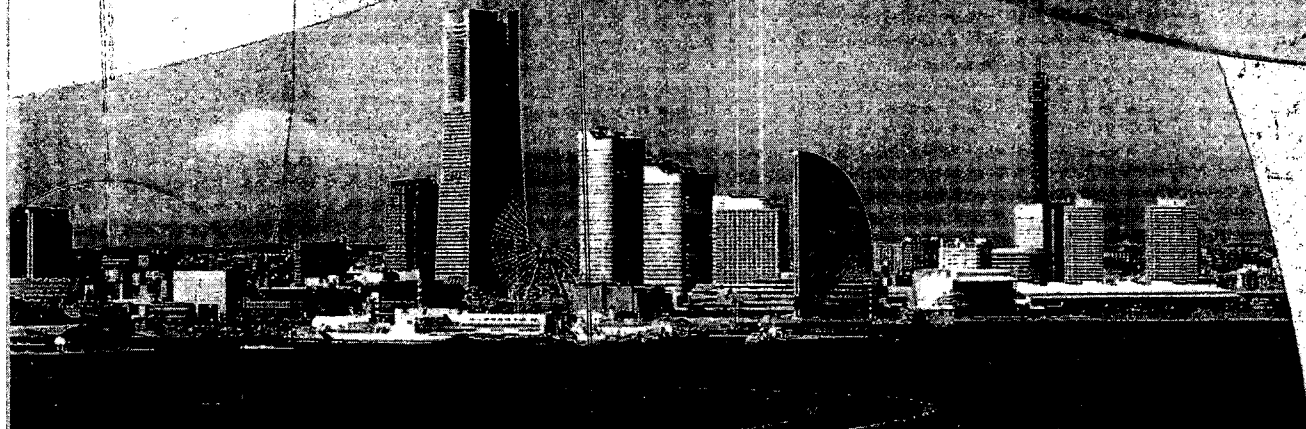


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Federation of Asian Nutrition Societies (FANS)



Abstract Book



Evaluation of anti-inflammatory activity of *Psychotria sarmentosa* leaves used in traditional porridge in Sri Lanka

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Psychotria sarmentosa Blume (named "Gonica" in Sinhala; Family: Rubiaceae) has a long history of use in the folk medicine in Sri Lanka and it has wide popularity in the community as a leafy vegetable used in traditional porridge. Indigenous healers prescribe an aqueous extract of leaves for individuals who have been physically assaulted, indicating that it may possess potent analgesic/anti-inflammatory activity. Phytochemical screening indicated that the concentration of secondary metabolites is low in the aqueous extract. Recent developments in the field of bioactive macromolecules prompted us to study the anti-inflammatory potential of an aqueous extract and a macromolecular fraction obtained from it by ethanol precipitation in the carrageenan induced rat paw oedema model.

Doses of 100 mg/kg each of aqueous extract and the macromolecular fraction were orally administered to male Wistar rats (n=6/group) in comparison with distilled water and indomethacin (5 mg/kg) which served as the negative and positive controls respectively. One hour following administration of respective doses, 0.1 mL 1% carrageenan suspension was injected into the sub plantar surface of the rat's hind paw to induce local oedema. The volumes of paw were measured 1 hour prior to the injection and every hourly for 5 hours following the injection using a plethysmometer. The percentage inhibition of oedema was calculated at each hour. Data analysis was carried out using one-way analysis variance (ANOVA). Results with $p < 0.05$ were considered as statistically significant.

The maximum percentage inhibitions of carrageenan induced rat paw oedema were found to be 58.3% and 64.6% respectively for aqueous fraction and macromolecular fraction at 3rd hour whereas it was 66.7% for indomethacin indicating comparable anti-inflammatory effect. These results warrant further search on identifying novel anti-inflammatory constituents from macromolecular fraction of this plant.