



**ORIGINAL RESEARCH PAPER**

**Pharmacology**

**EVALUATION OF ANTI-INFLAMMATORY ACTIVITY OF SIDDHA DRUG VATHANA GHANTHI THYLEM(VGT) USING CARRAGEENAN-INDUCED PAW OEDEMA METHOD IN ALBINO RATS**

**KEY WORDS:** Ghanthi Thylem, Anti inflammatory activity, Siddha, Cosmetics.

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**ABSTRACT**

**BACKGROUND:** The objective of this study was to assess the anti inflammatory potential of traditional siddha drug GhanthiThylem.

**MATERIALS AND METHODS:** The anti inflammatory of the drug was evaluated using carrageenan- induced paw oedema method. The inflammation was readily produced in the form of edema with the help of irritant such as carrageenan. Albino rats of either sex weighing 180-220g chosen.

**RESULTS:** Both dose of Vathana Ghanthi Thylem(VGT) at a doses of 15 ml/kg and 30ml/kg were tested for their Anti-inflammatory activity by using carrageenan Induced rat paw edema method . Diclofenac sodium 10mg/kg I.P as standard .

**DISCUSSION:** The results reveals that both doses of 15 ml/kg and 30ml/kg Vathana Ghanthi Thylem(VGT) possesses significant Anti inflammatory activity when compared to control group at p<0.01.

**Conclusion:** The results indicate that the traditional drug Ghanthi Thylem was scientifically proven as safe drug for prescribing as medication in prevention of dermatologic problems as mentioned in Siddha text Sikichaarithina deepam, part-I, skin pimples. It act as a preventive medicine that keep individual cosmetic beauty forever.

**INTRODUCTION**

Siddha system is a science of holistic health. According to Siddhar Thirumoolar, Siddha medicine, besides curing physical and mental ailment, prevents ailment and ensures longevity. The anti-inflammatory activities of Siddha formulation of Vathana Ghanthi Thylem(VGT) at a dose of 15 ml/kg and 30 ml/kg were evaluated using carrageenan-induced paw edema method. The inflammation was readily produced in the form of edema with the help of irritant such as carrageenan. Carrageenan is a sulphated polysaccharide obtained from sea weed (Rhodophyceae) and when injected cause the release of prostaglandins by the way it produces inflammation and edema.

**MATERIALS AND METHODS**

**REQUIREMENTS:**

Animal : Albino rat (180-200 g)  
 Drugs and : Carrageenan (1%w/v), Diclofenac sodium (standard),  
 Carboxy methyl cellulose : (1%w/v),  
 Digital plethysmo meter : UGO Basile (Italy)  
 Test compounds : Vathana Ghanthi Thylem(VGT)

**METHOD:**

Anti-inflammatory activity was performed by the following procedure of Bhandri et al(1) The animals were divided into 4 groups each having six animals. A freshly prepared suspension of carrageenan (1% w/v 0.1 ml) was injected to the planter region of left hind paw of each rat. One group was kept as control and the animals of the other groups were pretreated with the Vathana Ghanthi Thylem(VGT) at two doses 15ml/kg and 30 ml/kg dissolved with 2 ml sterile water given through orally twice a day for 4 days after carrageenan treatment.

The paw volumes of the test compounds, standard and control groups were measured at 24 hr, 48hr and 72hr with the help of Digital plethysmometer (Ugo Basile, Italy). Mean increase in paw volume was measured and the percentage of inhibition calculated.

**% Anti-inflammatory activity = (Vc-Vt/Vc) x 100 ,**  
 Where, Vt-mean increase in paw volume in rats treated with test compounds, Vc-mean increase in paw volume in control

group of rats.

**Table no.1 anti-inflammatory activity of vathana ghanthi thylem**

Treatment	Dose (mg/kg)	Paw volume(ml) as measured by mercury displacement at 72 hour	Percentage inhibition of paw edema
Group I	10ml/kg		
Normal saline	Orally	5.50±0.90	-
Group II Standard	10mg/kg I.P. Diclofenac sodium	1.85±0.42	66.36%*a
Group III Vathana Ghanthi Thylem(VGT)			
	15 ml/kg	2.18±0.50	60.36%*a
Group IV Vathana Ghanthi Thylem(VGT)			
	30 ml/kg	1.95±0.40	64.54%*a

- Data are expressed as Mean ± S.E.M.
- Data were analyzed by one way ANOVA followed by Newman's keul's multiple range tests, to determine the significance of the difference between the control group and rats treated with the test compounds.
- \*a Values were significantly different from normal control at P<

**RESULTS**

Anti-inflammatory activity

Both dose of Vathana Ghanthi Thylem(VGT) at a doses of 15 ml/kg and 30ml/kg were tested for their Anti-inflammatory activity by using carrageenan Induced rat paw edema method . The results reveals that both doses of 15 ml/kg and

30ml/kg Vathana Ghanthi Thylem(VGT) possesses significant Anti inflammatory activity when compared to control group at  $p < 0.01$

#### REFERENCES

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