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***In vitro* anti inflammatory activity of siddha formulation
"Vedakkini Kumaran Chooranam"**

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Abstract

The Siddha system is one of the ancient system of medicine in the world. This system of medicine was developed in the dravidian culture, which is of pre-vedic origin. Siddhars were of the concept that a healthy soul can only be developed through a healthy body. So they developed methods and medication that are believed to strengthen their physical body and thereby their souls. Siddha medicine laid stress on positive health and harmonious blending of physical, mental and spiritual welfare of an individual. Siddha medicines are completely harmless and free of complications. The aim of the present study is to evaluate the anti inflammatory activity of the siddha drug "Vedakkini Kumaran Chooranam" with the help of Carrageenan induced hind paw oedema method in Wistar rats.

Keywords: Siddha, Vedakkini Kumaran Chooranam, Anti inflammatory activity.

Introduction

The Anti-inflammatory activities of Siddha sastric formulation VedakkiniKumaranChooranam at a dose of 100 mg/kg was evaluated using Carrageenan – induced paw oedema method. The inflammation was readily produced in the form of oedema 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 oedema.

Experimental Section

Details regarding the sample:

Vedakkini Kumaran Chooranam is a siddha herbal formulation which indicated as a drug in Siddha sastric text Agathiar Vaidya pooranam-205 for the treatment of gastro intestinal disorder especially in case of

indigestion. The ingredients of this formulation are *Cuminum cyminum* and *Acalpha indica*. The drug was prepared as per the text Agathiar Vaidya pooranam-205.

Details regarding the study:

Grouping of animals:

Wistar rats of 180-220g are divided into 3 groups with 6 animals in each group.

Group-I: Normal control.

Group-II: Indomethacin 10 mg/kg

Group-III: Carrageenan + Siddha formulation
Vedakkini Kumaran Chooranam (100 mg/kg)

Rat paw edema model

Acute paw edema was produced by injecting carrageenan 1% w/w (0.1ml) into the sub plantar region of the left hind paw in the rats. The siddha sasthanic formulation Vedakkini Kumaran Chooranam (100 mg/kg) and Indomethacin 10 mg/kg were administered orally one hour before testing. The control group received vehicle 0.1 ml/100gm. The paw volume was measured by using digital plethysmometer (UGO Basile. Italy) at 0, 30, 60, 120 and 240 minutes after carrageenan challenge.

Statistical analysis

Data obtained from this study were expressed as mean±SEM. Statistical analysis was performed using

Two-way ANOVA followed by Bonferroni multiple comparison test. $p < 0.05$ implies significance.

Results

The anti-inflammatory activity of Siddha formulation Vedakkini Kumaran Chooranam carrageenan induced paw oedema indicated that the formulation at 100 mg/kg dose level showed significant ($p < 0.01$, $p < 0.001$) anti-inflammatory activity from 60 minutes onwards and it was maintained up to 240 minutes. The results were comparable with that of standard drug indomethacin 10 mg/kg.

Table 1: Effect of Siddha formulation Vedakkini Kumaran Chooranam on carrageenan-induced edema of the hind paw in rats

Sl. No.	Group	Treatment	Swelling volume (mL)				
			0min	30min	60min	120min	240min
1.	Control	1mL/kg 0.3%CMC	0.91±0.02	1.55±0.02	1.75±0.04	1.96±0.04	2.22±0.01
2.	Indomethacin	10 mg/kg	0.90±0.01	1.49±0.04	1.43±0.04 **	1.28±0.05***	1.14±0.02***
3.	Vedakkini Kumaran Chooranam	100mg/kg	0.90±0.01	1.48±0.02	1.42±0.02**	1.32±0.02**	1.17±0.01***

Values are expressed in terms of mean ± S.E.M, (n=6)

*** $P < 0.001$, ** $p < 0.01$ vs control group,

Two-way ANOVA followed by Bonferroni multiple comparison tests

Discussion

These observed data from this study helps to standardize this Siddha formulation VedakkiniKumaranChooranam regarding its Anti inflammatory behaviour.

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