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Research Article

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In vivo analysis of acute anti inflammatory activity on Kanjankorai Chooranam

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Abstract

The polyherbal formulation kanjankorai chooranam (KC) is a composition13 raw drugs. It is used as anti-inflammatory drug for treating kabasuram. This study to evaluate the scientific figures for the treatment of acute and chronic anti -inflammatory activity of kanjankorai choranam

Keywords: Anti inflammatory, kabasuram, kanjankorai chooranam

Introduction

Anti inflammatory drugs are helpful in constitutional symptoms of including mild to moderate pain. The usage of non-steroidal anti-inflammatory drugs in the treatment of painful conditions results in severe adverse effects such as gastritis renal damage etc. siddha medicine has many poly herbal formulations for the treatment of fever associated with poly arthralgia. In the study we have selected kanjankorai chooranam which is indicated for kabasuram by the way poly herbal formulation are not dangerous efficient, time-tested and devoid of severe side-effects kanjankorai chooranam is a mixture of several raw drugs, which retain the medicinal value for three months.

Acute anti inflammatory study on Kanjankorai chooranam by Hind- Paw method in albino rats

Aim

To study the acute anti-inflmmatory effect of Knajankorai Chooranam.

Preparation of the test drug

2 gm of kanjankorai chooranam was dissolved in 10 ml of honey separately. A dose of 2 ml was given to each rat this 2ml contains 200 mg of the test drug.

Procedure

Nine healthy albino rats weighting 100-150 gm were taken and divided into three groups each consisiting of 3 rats.

First group was kept as control by giving distilled water of 2ml/200gm of the body. The second grop was given Diclophenae sodium at dose of 20mg/100gm of body weight. The third group received the test drug 200mg/100gm of body weight.

Before administration of test drug, the hind-paw volumes of all rats measures. This was done by dripping the hind-paw (upto tibio-tarsal function) into a mercuru plethysmograohy. While dripping the hind-paw, by oulling the syringe piston, the level of mercuty in the centre small tube was made ti coincide with red marking and reading was noted from the plethysmogrph.

Soon after measurement, the drug were administrated orally. One hourlater, a subcutaneous injection of 0.1ml of 1% (w/v) carrageenin in water was made into plant of surface of both hind –paw of each rat. Three hours after carrageenin injection, the hind-paw volume were mead=sured once again. The differences between the initial and final volumes were calculated and compared.

The method is more suitable for studying the anit-inflammatory activity in acute inflammation. The values are given in the table.

Tabulation of result obtained- Kanjankorai Chooranam

Name of the drug/ Groups	Dose/ 100gram body weight	Initial reading average	Final reading average	Mena difference	% of inflammation	% of inhibition
Control(water)	2ml	0.55	1.4	0.85	100	
Standard (Diclophenae solution)	20mg	0.55	0.85	0.3	35.2	64.8

Chronic anti inflammatory study on Kanjankorai Chooranam

Aim

To study the chronic anti -inflammatory activity of the drug Kanjankorai chooranam in Albino Rats by cotton pellets implantation (Granuloma) method.

Procedure

Cotton pellets each weighing 10 mg were prepared and sterilized in an autoclave for about one hour under 15Ibs atmospheric pressure. 9 albino rats weighing between 100 to 200 gm were selected and were divided into 3 groups. each contained 3 rats.Each rat was anaesthetized with ether and cotton pellets were implanted sub-cutaneously in the groin, two in each side.

From the day of implantation, one group animals received kanjankorai chooranam at a dose 100mg/100g of the body weight. The control groups of animals were received distilled water. Last group was given Diclophenac sodium at a dose of 20mg/100g body weight.

On the eight day the rats were sacrificed and the pellets were removed and weighed. Then they were put an incubator at 60 - 80 degree Celsius and then weighed. The concordant weights were noted for all groups and compared.

TABULATION OF RESULT OBTAINED - KANJANKORAI CHOORANAM

Name of the Drug/Groups	Dose/100 gram body weight	Pellet weight	Pellet weight of Granuloma of drugs	% of inflammation	% of Inhibition	Remarks
Contral(Water)	1ml	10mg	250mg	100	-	
Standard Dielophenac sodium	20mg	10mg	55mg	22	78	
Kanjankorai chooranam	100mg	10mg	98mg	40	60	Moderate

Inference

Kanjankorai Chooranam has moderate chronic Anti inflammatory action

Discussion

The siddha formulation KC was evaluated for its Pharmacological & Toxicological profiles in experimental rats.

The test drug did not exhibit mortaility at the dose of 2000mg/kg/po. According to OECD 423, drugs do not show mortaility at 2000mg/kg and above are "Unclassified" under the toxicity scale. Hence further studies with higher doses were not attempted.

In repeated oral toxicity study (90mg/kg/p.o) for 15 days animals treated with KC did not exhibit any significant changes in Hb% RBC,blood sugar, cholestrol, body weight, food and water intake and behavioral parameters when compared to contraol animals KC at the dose of 90 mg/kg/p.o did not alter the Liver marker enzyme status when compared to control animals. No significant changes in the marker enzyme level of kidney was found in animals treated with KC for 15 day.

Conclusion

In repeated oral toxicity study (90mg/kg/p.o) for 15 days animals treated with KC did not exhibit any significant changes in Hb% RBC, blood sugar, cholesterol, body weight, food and water intake and behavioural parameters when compared to control animals. KC at the dose of 90 mg/kg/p.o did not alter the liver marker enzyme status when compared to control animals. No significant change in the marker enzyme level of kidney was found in animals treated with KC for 15 days.

KC exhibited significant analgesic, antipyretic and anti-inflammatory activity in both acute and chronic models of inflammation in rats. In cotton pellet granuloma method KC was comparable to that of diclofenac sodium 20 mg/kg/p.o KC exhibited significant reduction in the edema volume of paw injected with carrageenan at 30,60 120 and 240 mts, with maximum activity at the end of 240 mts, in the model also KC exhibited an anti-inflammatory activity comparable to that of diclofenac sodium (5 mg/kg/p.o). from this study it can be reasonably assumed that KC exhibits its anti-inflammatory activity due to a mechanism by inhibiting the cyclooxygenase pathway similar to that of diclofenac sodium.

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