



## In-Vivo Analgesic effect of Siddha herbal drug Elathy Mathirai

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### ABSTRACT

The present study was aimed to investigate the analgesic effect of the elathy mathirai was evaluated for its activity by tail flick method. The objective of this study was to evaluate the analgesic effect of Elathy mathirai, a polyherbal tablet selected from the siddha literature. Siddha system is the indigenous medical system of tamil nadu which was passed down by siddhars through generations. Their age is beyond assessment Siddha system is littered with herbal drugs that alleviates pain. The drug Elathai mathirai was selected for study due its inherent nature of ingredients.

### Keywords:

Siddha medicine, herbal drug, *Elathi mathirai*, Analgesic study.

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## INTRODUCTION

Siddha system is the indigenous medical system of tamil nadu which was passed down by siddhars through generations. Their age is beyond assessment Siddha system is littered with herbal drugs that alleviates pain. The drug Elathai mathirai was selected for study due its inherent nature of ingredients.

## MATERIALS AND METHODS

Drug ingredients for elathy mathirai were collected from renowned traditional medicine store and validated for authenticity by the competent faculty of medicinal botany department of govt siddha medical college palayamkottai.

### Ingredients

Elettaria cardamomum  
 Quercus infectoria  
 Piper longum  
 Fel bovinum purifacum  
 Costus speciosus  
 Nardostachys grandiflora  
 Cuminum cyminum  
 Nigella sativa  
 Anacyclus pyrethrum

### Preparation of the test Drug:

1 gram of **Elathy Mathirai** was suspended in 10ml of Hot Water as suspending agent. This 1 ml contained 100mg of the test drug.

### Chemicals Used:

Paracetamol (standard) and test drug elathy mathirai, Distilled water etc. All the chemicals required were purchased from reputed chemical stores.

### Animals and Ethical Approval

Healthy male Wistar albino rats (200-250g) were housed in CPCSEA approved animal house in groups of five in polypropylene cages. They were maintained at  $25 \pm 2^\circ$  C, relative humidity of 45 to 55% and under

standard environmental conditions (12hrs light 12 hrs dark cycle). The animals had free access to food and water ad libitum. All the procedures were performed in accordance with the Institutional Animal Ethical Committee constituted as per the directions of the CPCSEA from Govt siddha medical college affiliated with The Tamilnadu Dr. M. G. R Medical University, Chennai. The study was carried out between 9.00 am and 4.00 pm.

### Procedure:

Nine Male Healthy albino rats (weighing 80-100gms) were used for this study. The animals were allowed, free access to food and water until they brought for the experiment. The animals which showed the positive response to the stimulus (within a given time) were selected for the study. After the selection of animals which were responding to stimulus within 2 seconds, they were divided into three groups, each group consisting of three rats.

The hot water was maintained at  $55^\circ\text{C}$ . The tip of the tail was immersed into the water bath and the time was noted when the rat flicked the tail. First group was given 1ml of water and kept as control. Second group was administered with paracetamol at a dose of 20mg/100gm of body weight. Third group as given the dose of 100mg/100gm body weight of the animal .After the drug administration, the reaction time of each rat after half an hour and one hour were noted in each group (when a rat fails to flick the tail, it should not be continued beyond 8 seconds to avoid injury) and the average was calculated.

The results of control group, standard group and drug treated group were tabulated and compared.

## STUDY OF ANALGESIC EFFECT USING THE DRUG ELATHY MATHIRAI

Name of the Groups	Dose/ 100 gram body weight	Initial reading	After drug administration		Mean difference
			½ hr Average	1 hr Average	
Control (Water)	2 ml	2.0 sec	2.0 sec	2.0 sec	2.0 sec
Standard (Paracetamol)	2 mg	2.5 sec	4.5 sec	6.5 sec	6.5 sec
Test drug (Elathy Mathirai)	130 mg	2.5 sec	4.5 sec	5.5 sec	5.5sec

**DISCUSSION**

Pain is the indication of severe illness. It is predicted that about 80-100% of the population will experience back pain once in life. The analgesic effect of Elathimathirai was evaluated by tail flick method. The analgesic activity may be attributed due to the presence of glycosides, alkaloids and other bioactive compounds. The trial drug had significant analgesic action.

**Statistically analysis**

Results were expressed as Mean  $\pm$  SEM. Statistically differences was determined by Analysis of variance methods (ANOVA) by using statistical computer software Graph Pad Prism. Only those value showing statistical differences p

**RESULTS**

From the above study it is concluded that elathy mathirai found to possess analgesic activity.

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