



## Anti-microbial study of Siddha drug Elathi Mathirai

\*Jeevitha Vasudevan<sup>1</sup>

<sup>1</sup> MD Siddha, Government Siddha Medical college, Palayamkottai, The Tamilnadu Dr. MGR Medical University, Chennai.

### ABSTRACT

The uses of drugs derived from herbal medicines are on the rise in recent decades. Microbiology has proven to be one of the crucial sciences Siddha system exploits plant extracts to treat many diseases. plant extract found to possess antimicrobial properties for many decades. In Siddha literature there are indications to use elathy mathirai for respiratory diseases. So need of the hour is to evaluate the safety and efficacy of antimicrobial properties of siddha drugs. This study aims to explore and evaluate the anti microbial properties of Elathy mathirai ,a siddha poly herbal tablet.

### Keywords:

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

### Address for correspondence:

Dr. Jeevitha Vasudevan  
MD Siddha

CODEN : IJRPHR

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: [publisher@ijrphr.com](mailto:publisher@ijrphr.com)

### To access this article online

Website : <http://www.ijrphr.com/>

DOI : 10.121/ijrphr/05.0101.519

### Quick response code



## INTRODUCTION

Microbiology has proven to be one of the crucial sciences Siddha system exploits plant extracts to treat many diseases. plant extract found to possess antimicrobial properties for many decades. In Siddha literature there are indications to use elathy mathirai for respiratory diseases. So need of the hour is to evaluate the safety and efficacy of antimicrobial properties of siddha drugs.

## 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.

The study Anti-microbial action of “Elathy Mathirai” by “**Paper disc agar diffusion method**” (Kirby – bauyer method).

### Medium

#### Muller Hinton agar.

#### Components of medium

Beef extract - 300 gms/lit  
 Agar - 17 gms/lit  
 Starch - 1.5 gms/lit

Casein Hydrolysate - 17.5 gms/lit  
 Distilled water - 1000 ml  
 PH - 7.6

### Procedure

#### Preparation of inoculum

The given micro organism is inoculated in 1 ml of peptone water under sterile condition. The inoculum is incubated at 37°C for 2 hours thn the turbidity of the inoculum is adjusted to 0.5 µc Farland turbidity standard. The inoculum was poured in a Muller Hinton agar plate and uniformly spreaded over the plate. The excess inoculum was discarded.

#### Disc preparation

The known quantity of the given chemical compound is impregnated in a 6mm diameter filter paper disc and applied over the inoculum. Then the Muller Hinton agar plate is incubated at 37°C for overnight. The zone of clearance is measured with a scale and the sensitivity of the organism to the given trial drug is assessed. The diameter of zone of inhibition was observed and recorded.

TEST DRUG: ELATHY MATHIRAI

S.NO	MICRO ORGANISMS	SUSCEPTIBILITY	ZONE SIZE
1	Staphylococcus aureus	Sensitive	10 mm
2	Streptococcus pneumoniae	Sensitive	18 mm

### Staphylococcus aureus



## Streptococcus pneumonia



The antimicrobial test are carried out from Malar Micro-diagnostic centre, Palayamkottai.

---

### DISCUSSION

Advent of antibiotics proved to be saving human lives for many decades . Having said that antibiotic resistant bacterial infections are on the rise. According to world health organization over 80% of the world population use herbal medicine. This study explores the efficacy of antimicrobial properties of Elathy mathirai.

---

### RESULTS

From the above study it is concluded that elathy mathirai found to possess antimicrobial properties.

---

### REFERENCES

1. Balavagadam - Dr.Pon Guru Chironmani
2. Pillaipini Maruthuvam - Dr. Sundararajan BIM
3. T.v. Sambasivam Pillai Tamil - English Dictionary
4. Noi Nadal Noi Muthal Nadal Thriattu - Dr. M. Shanmugavelu
5. Siddha Mruthuvam (pothu) - Dr. Kuppuswamy Mudaliar.
6. Siddha Maruthuvanga Surukkam - Dr. K.S. uthamarayan.
7. Sarabendhirar Vaidhya Muraigal - Suraroga Chigisahai.
8. Yugu Vaidhya Chinthamani - R. Thiyagarajan.
9. Pararasasekaram - Suraroganithanam
10. Pararasasekaram - Balaroganithanam
11. Mathalai Noi Thokuthi - I & II
12. Seeva Rakshamirtham - Arumugam Pillai
13. Indian Medicinal Plants - Kirthikar and Basu
14. The Wealth of India
15. Indian Materia Medica - Dr. K. N. Nadkarni
16. Gunapadam Mooligai Vaguppu - K.S. Murugesha Mudaliyar
17. Gunapadam Thathu Jeeva Vaguppu - Dr. R. Thiyagarajan
18. Gray's Anatomy
19. Text Book of Human Physiology By Gyton
20. Achar's Text book of Pediatrics
21. Nelson text book of pediatrics
22. Essential pediatrics - O.P.Ghai
23. Differential Diagnosis in Pediatrics - Suraj Gupte
24. Hutchinson's Clinical Methods
25. Practical Paediatric Problems - James H. Hutchison
26. Boyd's Text Book of Pathology 9<sup>th</sup> Edition (Vol - I)
27. Clinical Text Book of Peditatrics - Dr. Lakshmanan
28. Ananthanarayan and paniker's text book of Microbiology.