

**ANTI- MICROBIAL ACTIVITY OF “THURUSU THAIVELAI KARUKKU” IN THE MANAGEMENT OF RESPIRATORY DISEASES****M.ARUNVANAN<sup>1</sup>, G.G.RAMKUMAR<sup>2</sup>, S.K.SASI<sup>3</sup>, A.SUBRAMANIAN<sup>4</sup>, M. MATHIAAS<sup>5</sup>**<sup>1,3,4</sup>Dept. of Noinaadal- Government siddha medical college, palayamkottai, <sup>2</sup>Dept. of Pothumaruthuvam, Government Siddha medical college, Chennai, <sup>5</sup>Traditional siddha practitioner.

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**ABSTRACT**

The respiratory system is the primmest host for many microbes for their entry and replication as soon as one's immunity shoots down. So there is always a need for an effective medicine to overcome this illness. In the siddha system of medicine the two distinct drugs, Thurusu (copper sulphate-mineral drug) and thaivelai (Cleome gynandra-herbal drug) is used for many years in the management of Respiratory diseases and their individual properties are well established. In this study I evaluated the Herbomineral Traditional medicine “*Thurusu thaivelai karukku*” for antimicrobial activity in the management of respiratory diseases.

**INTRODUCTION**

Thurusu - chemical name -copper sulphate

Thaivelai – Botanical name - cleome gynandra

In the siddha system of medicine the processed thurusu (suthitha thurusu) stands for its unique properties , clinically the herb thaivelai is well known in the siddha medicine for its healing nature in respiratory diseases .

**MATERIALS AND METHODS**

1. Preparation of the antibiotic- *Thurusu thaivelai karukku*.

2. Antibiotic disc preparation for Kirby bauer disc diffusion method.

**Preparation of the antibiotic- *Thurusu thaivelai karukku*:**

The whole plant of thaivelai is collected and it is rinsed with water and crushed for juice. About 250 ml of thaivelai fresh juice is taken in a karukku agal (a vessel used for preparing the karukku which is made out of clay).

35 mg of Processed thurusu is taken and it is hanged over with a help of standard thread in such a manner to dip the thurusu in the juice and the vessel is heated until the ash is obtained from the juice, then collect the ash in a clean container. Discard the remaining thurusu held in the thread.



**Fig. 1: Thurusu thaivelai karukku**

**Antibiotic disc preparation for Kirby bauer disc diffusion method**

Known weight of the prepared drug *Thurusu thaivelai karukku* is impregnated in a 6mm diameter filter paper disc and dried. It is used

for the antibiotic sensitivity test. The disc is placed over a lawn culture of the required test bacterium and incubated at 37°C for overnight, and then the zone clearance is read with a scale. The diameter of the zone of clearance is interpreted as sensitivity or resistance of the bacterium to the drug.

## RESULTS

Organism	Sensitivity	Resistance
Pseudomonasaeruginosa	Yes	No
Streptococci.	No	Yes
klebsiellapneumonia	No	Yes



Fig. 1: The drug showing its zone of clearance in the culture medium with Pseudomonas.

## CONCLUSION

In the siddha system many drugs are in series for better line of treating the respiratory diseases and are studied as antibiotic to

specific microbes, in this category now this traditional herbomineral drug *Thurusu thaivelai karukku* joins the spectrum and acts against specific microbe- *Pseudomonas aeruginosa*.