
INTERNATIONAL JOURNAL OF CURRENT RESEARCH IN BIOLOGY AND MEDICINE

ISSN: 2455-944X

www.darshanpublishers.com

DOI:10.22192/ijcrbm

Volume 3, Issue 1 - 2018

Original Research ArticleDOI: <http://dx.doi.org/10.22192/ijcrbm.2018.03.01.004>

In vitro evaluation of antifungal activity on Siddha formulation Pungan Thailam

Vanitha A¹, Seethalakshmi G², Muthukumar N.J³, Banumathi V⁴.

¹Residential Medical officer, Dept of Kuzhanthai Maruthuvam, National Institute of Siddha.

²Residential Medical officer, Dept of Soolmagalir Maruthuvam, National Institute of Siddha..

³Associate professor, HOD(i/c), Dept of Sirappu Maruthuvam, National Institute of Siddha.

⁴Director, National Institute of Siddha.

Abstract

The siddha system of medicine has a significant role in treating the skin diseases with wide variety of medicines but there was no proper research as such medicine to treat skin diseases. This present study is performed to investigate the antifungal activity of pungan thailam. The anti-fungal activity is done by disc diffusion method and the results showed significant activity against *Aspergillus* species.

Keywords: siddha system, skin diseases, *Aspergillus*.

Introduction

In the siddha system of medicine, skin diseases are classified into 18 types. This classification based on the vitiation of humor is also seen in siddha literature kuppasamuthaliyar 1953. According to sage yugimuni, the skin diseases are caused by insects, microorganisms and certain venereal diseases like syphilis. There are four types of skin disease caused by microorganisms, six types are caused by venereal diseases and eight types are caused by insects. Among these types the micro-organism like bacteria, fungus and viruses may cause mild to severe discoloration of skin, itching and oozing. There was no extensive report about treating the skin disease with pungan thailam. This research paper revealed the in-vitro antifungal activity of pungan thailam documented in siddha classic text.

Materials and Methods

Antifungal Activity

47 g of Sabouraud dextrose agar medium (Hi Media) was suspended in 1000 ml of distilled water. The medium was dissolved completely by boiling and was then autoclaved at 15 lbs pressure (121°C, pH 5.6 ± 0.2) for 15 min. Antibiotic susceptibility tests were determined by agar disc diffusion (Kirby-Bauer) method. About 20 ml of sterile molten Sabouraud Dextrose Agar (HiMedia Laboratories Pvt. Limited, Mumbai, India) was poured into sterile petriplates. The plates were swabbed with the overnight culture (10⁸ cells/mL) of pathogenic fungi viz. *A. niger*, *A. flavus*, *Penicillium sps.* Finally, the sample or sample loaded disc was then placed on the surface of Sabouraud dextrose agar and the plates were kept for incubation at 22°C for 48 hours. At the end of incubation, inhibition zones were examined around the disc and measured with transparent ruler in millimeters.

The size of the zone of inhibition (including disc) was measured in millimeters. The absence of zone inhibition was interpreted as the absence of activity (Kohner et al., 1994; Mathabe et al., 2006). The

activities are expressed as resistant, if the zone of inhibition was less than 7 mm, intermediate (8-10 mm) and sensitive if more than 11 mm (Assam et al., 2010).

Results

Antifungal screening report

S.No	Organisms	Extract(mm)	Postive control Flucanazole(mm)
1	<i>Aspergillus niger</i>	13	19
2	<i>Aspergillus flavus</i>	9	17
3	<i>Pencillium sp</i>	-	27



Conclusion

From the results obtained, we concluded that Punganthylam has in comparable action against *Aspergillus* species. The author proved the efficacy of Punganthylam and also this is the value added example for treating the skin diseases with Siddha classical medicine.

References

1. Dr.K.M.Nadkarani, Indian Materia Medica vol:1 Publisher: popular prakash, Mumbai, India.
2. Dr. Murugesu Muthaliyar, Siddha Materia Medica (vegetable section), volume 1, fourth edition 1988, publisher; Tamilnadu Siddha Medical Council, Chennai.
3. Dr.K.N-Kuppuswami Muthaliyar H.P.I.M, Dr.K.S.Uthamarayan H.P.I.M-Siddha Vaithiyathiratu- Indian medicine and homeopathy dept Chennai-106.
4. Hasday JD, Shah N, et al. fever, hyperthermia and the lung : its all about context and timing. Trans Am clin climatol Assoc. 2011;122:34-47.

Access this Article in Online	
	Website: www.darshanpublishers.com
	Subject: Siddha Medicine
Quick Response Code	

How to cite this article:

Vanitha A, Seethalakshmi G, Muthukumar N.J, Banumathi V. (2018). *In vitro* evaluation of antifungal activity on Siddha formulation Pungan Thailam. Int. J. Curr. Res. Biol. Med. 3(1): 27-29.

DOI: <http://dx.doi.org/10.22192/ijcrbm.2018.03.01.004>