

**COMPARATIVE ANTIFUNGAL ACTIVITY OF SIDDHARTHAK SNAN CHOORNA
AND CANDID 1% POWDER W.S.R TO CANDIDA ALBICANS - IN-VITRO STUDY****Khushbu Jagdeo Watane*¹ and Mrunali Patil²**¹MD Scholar at RSBK Dept, LRP Ayurvedic Medical College, Islampur.²Associate Professor at RSBK Dept, LRP Ayurvedic Medical College, Islampur.***Corresponding Author: Khushbu Jagdeo Watane**

MD Scholar at RSBK Dept, LRP Ayurvedic Medical College, Islampur.

Article Received on 26/06/2023

Article Revised on 16/07/2023

Article Accepted on 06/08/2023

ABSTRACT

This study was carried out with an objective to investigate the Antifungal activity of siddharthak Snan Choorna and candida 1% dusting powder water solution of concentration 4% and 20% w.s.r Candida Albicans. The aim of study is to assess in-vitro comparative Antifungal activity of siddharthak Snan Choorna and candid 1% dusting powder of water solution against Candida Albicans. The Antifungal activity was estimated by well diffusion method. The zone of inhibition of extracts were compared to nystatin and griseofulvin as standard drugs. The result showed that the remarkable inhibition of the fungal growth was shown against Candida Albicans. We conclude from this that Siddharthak Snan Choorna shows amazing fungicidal properties that support the traditional use as Antifungal agent. Hence, Siddharthak Snan Choorna can be used as natural product to fight fungal infection caused by Candida Albicans.

KEYWORDS: Siddharthak Snan Choorna, antifungal activity, Candida albicans.**INTRODUCTION**

Ayurveda is holistic system of medicine which in one aspect deals with disease occurring in human body and in other aspect emphasizes on the stable health of human body. Ayurvedic Preparation are commonly based on complex herbal compounds, charak Samhita states basic principal of ayurvedic treatment. Skin is the largest organ of body constituting the integumentary system comprising of skin, hair, nails etc. in ayurveda skin diseases are covered under broad spectrum of term 'kushta'. In charak Samhita chikitsa sthan adhyay 7 kushta chikitsa is mentioned.

Siddharthak Snan Choorna is indicated for local application. It contains Musta, Madanphal, Triphala, Karanja, Aragwadha, Indrayava, Darvi, Saptaparni It acts as Antifungal and twagdosahar.^[1]

Nowadays fungal infections are seen more often. symptoms are irritation, redness, inflammation at edges, itching, burning, scaly skin are present. In this cutaneous fungal infections are more common which can be corelated with kushta mentioned in Charak samhita. Candida albicans is a fungus that lives on body surface, skin, mouth and intestines. Candida is a yeast that is responsible for infection. Yeast infections are common because the balance of candida in your body can easily become disrupted. The most common infection caused by Candida albicans occurs in about 75% of people.

Symptoms of Infection are skin redness, itching, lumpy white patches, pain, discomfort, burning sensation which can be correlated with symptoms of kushta mentioned in charak Samhita.^[1]

Candid 1% is a fungal dusting powder composed of clotrimazole an active ingredient that works effectively in treating various fungal infections by annihilating the cell membrane of the fungi.

AIM

To study In-vitro comparative Antifungal activity of Siddharthak Snan Choorna and candid 1% w.s.r to Candida albicans.

OBJECTIVE: To prepare Siddharatak Snan Choorna with reference to charak Samhita and to study its In-vitro comparative Antifungal activity with candida 1% w.s.r to Candida albicans

MATERIALS

- 1) Preparation of Siddharthak Snan Choorna.
 1. Musta Choorna
 2. Madanphal Choorna
 3. Triphala Choorna
 4. Karanj Choorna
 5. Aragwadha Choorna
 6. Indrayava Choorna
 7. Darvi Choorna

8. Saptaparni Choorna
- 2) Candida 1% dusting powder.

METHOD

In vitro Antifungal activities were examined for Siddharthak Snan Choorna and candida 1% dusting powder for 4 % & 20% water extract. Antifungal activities of extracts against *Candida albicans* fungi were investigated by the agar disk diffusion method. Each purified extracts were dissolved in dimethyl sulfoxide, sterilized by filtration using sintered glass filter, and stored at 4°C. For the determination of zone of inhibitions. All the extracts were screened for their Antifungal activities against the fungi *Candida albicans*. The Siddhartha Snan Choorna and candida dusting

powders were taken in sets of two concentration 4% & 20% of extract which were prepared in double-distilled water using nutrient agar tubes. Mueller-Hinton sterile agar plates were seeded with indicator fungi and allowed to stay at 37°C for 3 hours. Control experiments were carried out under similar condition by nystatin and griseofulvin for Antifungal activity as standard drugs. The zones of growth inhibition around the disks were measured after 18 to 24 hours of incubation at 37°C for bacteria and 48 to 96 hours for fungi at 28°C. The sensitivities of the microorganism specie to the both extracts were determined by measuring the sizes of inhibitory zones (including the diameter of disk) on the agar surface around the disks, and values <8 mm were considered as not active against fungi.

RESULT

	SAMPLE NAME	CONCENTRATION	ZONE OF INHIBITION(MM) CANDIDA ALBICANS
1.	Siddharthak Snan Choorna	4% water solution	11mm
2.	Siddharthak Snan Choorna	20% Water solution	15mm
3.	Candid dusting powder	4% Water solution	<10mm
4.	Candid dusting powder	20% Water solution	12mm

CONCLUSION

According to result drawn from Antifungal test it shows that Siddharthak Snan Choorna's zone of inhibition for *Candida Albican* fungi is more than candid dusting powder. Zone of inhibition of 4% water solution of Siddharthak Snan Choorna is 11 mm and 20% water solution of Siddharthak Snan Choorna is 15 mm. The 4% water solution of candid dusting powder shows <10 mm of zone of inhibition & 20% water solution of candid dusting powder shows 12 mm of zone of inhibition against *Candida Albican* fungi.

REFERENCE

1. Charak Samhita Uttaradha Acharya vidyadhar shukla, prof. ravidatta tripathi, Acharya priyavrat Sharma, chaukhamba Sanskrit pratishthan, 2016; 190.
2. Abhinav Garg, Ganti S. Sharma, Amit K. Goal, Sudan Chandra Si, Goutam Rath, Resent advances in topical carriers of Antifungal agents, 2020 Aug 19. Doi:10.1016/J.heliyon.e04663
3. <https://www.researchgate.net/publication/296348328>
4. Shilpa patil, Anand Kumar Chaudhary, Topical dosages forms lepa Kalpana Ayurveda: An unexplored treasure, Department of Rasa Shastra, Faculty of Ayurveda, IMS, BHU, Varanasi, 2015.
5. Moshin jamadar, Rajmahammad Husen Shaikh, preparation and evaluation of herbal gel formulation, Department of Quality Assurance, Pharmaceutics, Appasaheb Birnale College of Pharmacy, Sangli, 2017. Moshin J. Jamadar et al./SGVU Journal of Pharmaceutical Research & Education, 2017; 1(2): 201-224.
6. Subhash Bharti, Deepshikha Khanna, Shailendra Bharti, Luliconazole for the treatment of fungal

- infections: An evidence based review, 2014.
7. https://www.researchgate.net/publication/266266071_for_treatment21.
8. Charak samhita part 2 Acharya vidyadhar shukla, prof. ravidatta tripathi, Acharya priyavrat Sharma, chaukhamba Sanskrit pratishthan, 2016.
9. Charak samhita part 2 Acharya vidyadhar shukla, prof. ravidatta tripathi, Acharya priyavrat Sharma, chaukhamba Sanskrit pratishthan, 2016.
10. Vagbhattacharya, Ashtang Sangraha, Vranapratishedha 30/8 Sashilekha Sanskrita Commentary by Indu I, Sharma S, editor. Varanasi: Chaukhambha Sanskrita Series Office, 2012.
11. Vagbhattacharya, Ashtang Samgraha Uttartantra, Vranapratishedha 30/8 Sashilekha Sanskrita Commentary by Indu. In: Sharma S, editor. Varanasi: Chaukhambha Sanskrita Series Office, 2012.
12. Vagbhattacharya, Ashtanghridaya, Sutra Sthana 22/14. Commentaries Sarvangasundara of Arunadatta and Ayurveda Rasayan of Hemadri Annotated by Anna Moreshwar Kunte. In: Pt. Shastri HS, editor. Varanasi: Chaukhambha Surbharti Prakashan, 2010.
13. Bhavprakash or Sri bhav misra edited with vidyotin hindi commentry notes and appendix by Sri brahmasankara misra and Sri rupalalaji vaisya, first part, chaukhamba sanskrit bhawan, varanasi, edition reprint, 2020.
14. Bhavprakash or Sri bhav misra edited with vidyotin hindi commentry notes and appendix by Sri brahmasankara misra and Sri rupalalaji vaisya, first part, chaukhamba sanskrit bhawan, varanasi, edition reprint, 2020; 424.