

Clinical efficacy of saptaparna (alstonia scholaris) on tinea infection with special reference to dadhru.

Dr.Veerendra P Hosmath¹, Dr.Adivappa Nashipudi², Dr.Navnita S Sengupta³, Dr.Shashikala V Hosmath⁴

Professor, Dept of Dravyaguna, Shri J.G.C.H.S Ayurvedic Medical College Ghataprabha, Belagavi, Karnataka, 2Assistant Professor, Dept of Dravyaguna, Dr. Ravi Patil Ayurvedic Medical College, Hospital and Research Center, Honaga, Belagavi, Karnataka, 3Associate Professor, Dept of Kayachikitsa, Shri J.G.C.H.S Ayurvedic Medical College Ghataprabha, Belagavi, Karnataka, 4Professor, Dept of Agada Tantra & Vyavahar Ayurveda, Dept of Dravyaguna, Shri J.G.C.H.S Ayurvedic Medical College Ghataprabha, Belagavi, Karnataka, India

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ABSTRACT:

Reoccurrence of Tinea infection is also common, the allopathic medicines such as oral and topical antifungal drugs capable to relieve from infection but it needs to take long term, although they have more adverse effects such as gastric irritation, itching, diarrhea, abdominal pain, headache, hepatotoxic effect. Along with adverse effects some patients may develop resistance to drugs. Because of these conditions we are lagging behind to treat the Tinea infection. By considering above, the present study is aimed to evaluate the clinical efficacy of Saptaparna in the management of Tinea infection w.s.r to Dadru Kushta. Taila will be prepared from Saptaparna Patra(leaf) and Twak(stem bark) as per classical reference (general method of preparation of Taila).

Keywords- Tinea, Hepatotoxic, Dadhru, Saptaparna leaf

Introduction - In recent years considerable attention has been devoted to medicinal plants

with antimicrobial properties. The antimicrobial studies are commonly postulated to play an important role in preventing diseases caused by resistant microbes. Prevalence of superficial fungal infection worldwide is 20-25%. Common fungal infection caused by the fungus is Tinea infection 1,2,3 . It is also called as Ring worm, because it causes circular rash that red and itchy, depends upon the place of infection different names are given example - Tinea cruris (groin), Tinea corporis (body), Tinea pedis (foot), Tinea capitis (scalp), Tinea barbae (beard), Tinea unguium (nail), Tinea faciei (face), Tinea manuum (hand).

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conditions we are lagging behind to treat the Tinea infection.

The drug Saptaparna is well known plant known for its Kushtagna property, as our Acharya Charaka already mentioned Saptaparna in Kushtagna 4,5,6 Dashemani, Udarda prashemana gana, Vagbhata and Shushrutha in Aragvadhadi group, Bhavaprakash nigantu in Vatadhi group. Saptaparna has Gunas 6,7 Tikta, kashaya -Rasa. Laghu, snigda- Guna. Ushna- Virya. Katu -Vipaka .By considering above, the present study is aimed to evaluate the clinical efficacy of Saptaparna in the management of Tinea infection w.s.r to Dadru Kushta.

AIMS AND OBJECTIVES OF STUDY

1. Clinical evaluation on efficacy of Saptaparna in the management of Tinea infection w.s.r to Dadru Kushta.
2. Detail Pharmacognostic and phytochemical study of Saptaparna Leaves and Bark.

MATERIALS AND METHODS

This clinical study was taken to evaluate and to compare the efficacy of Saptaparna Taila and Clotrimazole ointment in the management of Tinea

infection w.s.r to Dadhru Kushta. This study was conducted in between December 2018 to Feb 2020. was carried out in 3 phases as given below:

I. Pharmacognosy study

II. Pharmaceutical study

III. Clinical study

Sapthaparna Twak and Leaves was procured and authenticated from the Radiant Research laboratory, Bangalore recognized by AYUSH department and used for the further study. Botanically identified genuine Sapthaparna was collected from the botanical garden of Shri J.G.C.H Ayurveda college, Ghataprabha. Sapthaparna Twak and

Leaves are used to prepare Taila as mentioned by classical books prepared according to Sharangdhara Samhita in Rasashastra and Bhaishajya Kalpana department of Shri. J.G.C.H.S Ayurved college, Ghataprabha and dispensed to the patients. Clinically diagnosed cases of Tinea infections such as Tinea cruris and Tinea corporis are selected from OPD/IPD cases of Shri J G C H S Ayurvedic medical college Hospital, Ghataprabha and medical camps.

It was a single blind clinical study of 40 patients; patients fulfilling the inclusion criteria were selected, divided into 2 equal groups

Group	Sample size	Route of administration	Form of Administration	Dose	Duration	Follow-up During Treatment
A	20	Local Application	Sapthaparna Taila	Twice Daily on affected part	30 days	15 th Day 30 th Day
B	20	Local Application	Clotrimazol ointment	Twice Daily on affected part	30 days	15 th Day 30 th Day

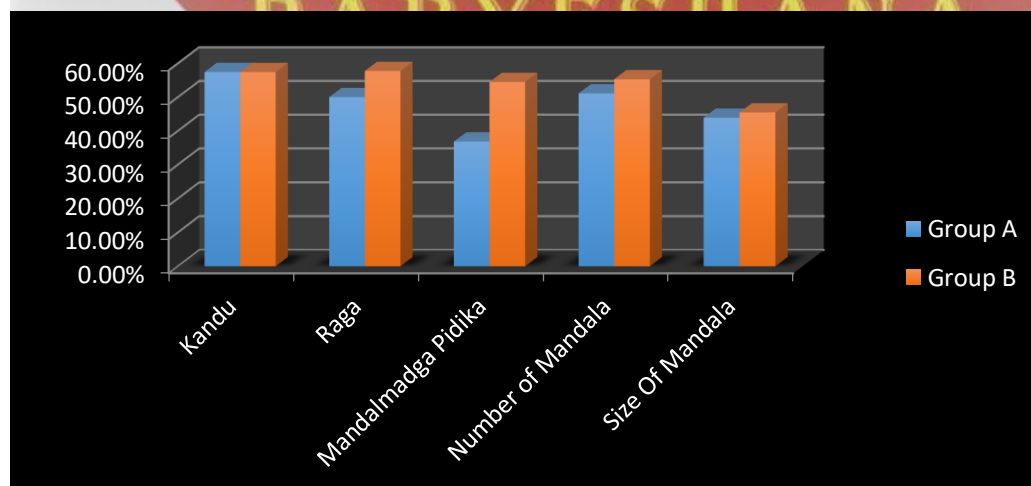
Parameters taken for assessment are based on subjective and objective criteria before and after treatment.

OBSERVATIONS

Comparative efficacy of therapies (Sapthaparna Taila and Clotrimazol ointment)

Sr. no	Criteria	Sapthaparna Taila	Clotrimazole Ointment
1.	Kandu	57.44%	57.44%
2.	Raga	50%	57.77%
3.	Mandalmudgam Pidaika	36.84%	54.5%
4.	Number of Mandala	51.11%	55.31%
5.	Size of Mandala	43.90%	45.45%

Graph showing comparative result of Group A i.e Sapthaparna taila and Group B i.e. Clotimazol Ointment.



Comparison Between Group A and Group B

Parameters	Reduction In Mean		SD		SEM		SED	t value	p Value	Significance at p < 0.05
	Group A	Group B	Group A	Group B	Group A	Group B				
Kandu	1.35	1.35	0.94	0.49	0.211	0.109	0.237	0.00	1.000	Not statistically significant
Raga	0.5	1.3	0.60	0.50	0.135	0.112	0.175	4.560	0.0001	To be highly statistically significant
Mandal mudgam pidika	0.7	1.2	0.62	0.70	0.138	0.156	0.208	2.400	0.0214	To be statistically significant
Number of Pidika	1.10	1.3	0.55	0.86	0.124	0.193	0.229	0.871	<0.500	Not statistically significant
Size of Pidika	0.9	1	0.45	0.92	0.100	0.206	0.229	0.436	0.66	Not statistically significant

OVERALL ASSESSMENT OF THE TREATMENT BETWEEN THE GROUPS

Parameters	Reduction In Mean		SD		SEM		SED	t value	p Value	Significance at p < 0.127
	Group A	Group B	Group A	Group B	Group A	Group B				

Overall Assessment Between the groups	0.91	1.23	2	0.33	0.13	0.14	0.06	24	1.98	0.08	25	To be not quite statistically significant
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The overall assessment of both the groups, where group A receives Saptaparna Taila and group B Clotrimazol Ointment shows promising improvement in the both subjective and objective parameters, but when assessment was done using unpaired t'test between these two groups the result was not quite statistically significant which means there is no much difference in the efficacy of these two formulation in the management of tinea infection (Dadhru Kushta). Both the formulations shown nearly same outcome in the Improvement of disease parameter.

DISCUSSION-

The overall assessment of both the groups, where group A receives Saptaparna Taila and group B Clotrimazol Ointment shows promising improvement in the both subjective and objective parameters, but when

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PROBABLE MODE OF ACTION:

The action on the body is explained and understood on the level of Rasa Panchaka of the drug.

Kandu is due to kapha involvement in disease suppressed by the Tikta (bitter),Kashaya (astringent) Rasa, laghu guna ,Ushna verya & Katu Vipaka. Raga is due to pitta predominance in disease which is controlled by Tikta and Kashaya Rasa,Snigda guna. Mandalmudga pidika is due to predominance of Kapha

Pitta Dosha predominance suppressed by tikta and kashaya rasa even though it is snigdha in property laghu in nature so its rare drug not increase kapha and pitta. Due to its good action on skin Charaka explained it in Kushtagna dashemani Ghana.

CONCLUSION

- Sapthaparna being herbal drug mentioned in Ayurvedic classics in various contexts and various journals Which are known for its Kushtagna property with supportive Rasapanchaka.
- The preliminary phytochemical and analytical study have shown that the parameters of the drugs are within the standard limits.
- The present study has demonstrated that Sapthaparna possesses Kushtagna property which is helpful in the treatment with Tenia infection
- During the treatment there was no adverse effect was not seen in all patients. There is no drug having untoward effect& easy to apply
- Both the groups, where group A receives Sapthaparna Taila and group B Clotrimazol Ointment shows promising

improvement in the both subjective and objective parameters, but when assessment was done using unpaired 't'test between these two groups the result was not quite statistically significant.

- Sapthaparna having wound healing property.

- Vichitrapratyarabdha Dravya – Sapthaparna has Tikta Kashaya Rasa Katu Vipaka, Snigdha, Sara Guna and Ushna Veerya

- Sapthaparna also has therapeutic value in curing Kushtha, Krimi, Vrana, Shwasa, Gulma, Shleepada, Vishamajwar

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Corresponding author:

Dr.Veerendra P Hosmath

Professor, Dept of Dravyaguna, Shri J.G.C.H.S Ayurvedic Medical College Ghataprabha,Belagavi, Karnataka
jgveerendraph1234@gmail.com

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