



A Critical Analysis of Pama Kustha (Scabies) with Special Reference to “*Kustheshu raktapittapravaleshu visagjjitam Siddham*” by using Khadira Ghrita and Nimba Ghrita.

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Abstract:

Healthy skin reflects a healthy body, and any issues with the skin can affect not only physical health but also an individual's psychological well-being and social interactions. One of the most prevalent illnesses among the lower socioeconomic classes is Pama Vyadhi (Scabies). It is a skin infection that is highly contagious, spreading quickly in crowded areas and occurring all over the world. Maintaining good personal hygiene and having access to a sufficient amount of water are crucial preventive measures.

Material and methods: There were 30 diagnosed Patients age between 10-40 years with Pama (Scabies) were randomly selected for the clinical study and divided into two groups. The sensitivity test of Khadira Ghrita and Nimba Ghrita were applied twice daily (after bath at morning & before going to bed at night). In Group-A :15 patients were given external application of Khadira Ghrita and in Group-B:15 patients were given external application of Nimba Ghrita. Patients were enrolled in the clinical study after providing their written consent.

Result and Discussion: In group A out of 15 Patients, 80% were markedly improvement occurred, moderately improvement occurred in 20% and none of the Patient were found in mild improvement as well as in unchanged at all group where as in group B out of 15 patients 63.33% were markedly improvement, moderate improvement occurred in 30% children and mild improvement occurred 6.67% and none of the patients were observed in the unchanged group.

Conclusion: The combined holistic treatment modalities of Ayurveda i.e Bahya chikitsa proved to be boon for Patients suffered from Pama(Scabies), produced significant results. The treatment is safer and cost effective with no complications observed so far.

Key words: Pama Kustha, Scabies, Khadira Ghrita, NimbaGhrita.

1. INTRODUCTION:

The primary goal of Ayurvedic medicine is to maintain the good health, prevent illness, promote longevity and treat disease when necessary. Ayurveda advises that it is essential to maintain the body's natural state of internal balance for optimal health which is depends upon basic fundamental concept of Ayurveda. The Understanding of all these principles is must to assess the evaluative process of development of disease.

In Ayurveda, "Kustha" is defined as "Twachaha kurvanti vaivarnya dustah kusthamushanti tat," meaning a disease that destroys the Twacha (skin) and involves the vitiation of Doshas and Dhatus.



Skin disorders are among the most common health issues, affecting individuals across all age groups and communities. These diseases are explained under the common terminology "Kustha," which refers to visible or exposed diseases. According to Acharya Sushruta Kustha roga occurs in Tamra and Vedini layer of the skin Twacha¹.

Pama is a type of *Kshudra Kustha*² (minor skin disease) described in Ayurvedic classics and is the most common *Aoupsargika Roga*³ (contagious disease). It is primarily associated with the vitiation of *Kapha* and *Pitta Doshas*, caused by *Twaka* and *Rakta Dushti* (vitiation of skin and blood). Thus, it is considered a *Rakta-Pitta Prabala Kusthaja Vyadhi*, characterized by symptoms such as: *Kandu* (severe itching), *Raga* (redness), *Pitika* (small eruptions), *Toda* (Pain) and *Rukshata* (scaling of the skin). An essential factor in this condition is the eruption of *Shyava Arunavarni Pitika* (grayish-reddish eruptions) with intensive itching and sometimes with minimal *Srava* in the region of *Sphik* (Buttocks), *Pani-Pada* (Hand & Foot), *Kurpara* (Fore arm or elbow region)⁴. Both the Charaka Samhita⁵ and Sushruta Samhita⁶ Acharyas mentioned that *Pama Kustha* can also result from *Krimi* (parasitic infestation). Improper dietary habits, poor hygiene, and external environmental factors often exacerbate the condition. In modern dermatology, *Pama* is correlated with scabies, a parasitic infestation caused by the *Sarcoptes scabiei* mite.

The treatment principles emphasize: Detoxification, Immune modulation, Tissue repair. Herbal formulations play a pivotal role in achieving these therapeutic goals. A combined approach using *Khadira Ghrita* and *Nimba Ghrita* offers the potential to address the multifactorial pathology of *Pama Kustha* through their synergistic action. *Khadira Ghrita* (prepared with *Acacia catechu*) is renowned for its *Krimighna* (antiparasitic), *Kusthaghna* (anti-dermatological), and *Raktashodhaka* (blood-purifying) properties. *Nimba Ghrita* (infused with *Azadirachta indica*) exhibits potent antimicrobial, antipruritic, and anti-inflammatory effects. By combining the antiparasitic, detoxifying, and soothing properties of these formulations, this approach aims to provide comprehensive relief while promoting skin health and minimizing recurrence.

This clinical trial seeks to evaluate the efficacy of the external application of *Khadira Ghrita* and *Nimba Ghrita* in the management of *Pama Kustha* (scabies). The current study was planned and executed to demonstrate the validity and effectiveness of the treatment principle, taking into account the *Pama Kustha* treatment principle as described by Acharya Charak.

1.1 AIM AND OBJECTIVE OF STUDY:-

The objectives of this study were as follows:

- To study details about *Pama Kustha* as per classical Ayurvedic literature and modern literature.
- To establish the concept of "*Kustheshu raktapittapravaleshu visagjitam Siddham*"⁷ mentioned in Charak Samhita in the management of *Kustha* w.s.r. to *Pama Kustha*.
- To compare the efficacy of external application of *Khadira ghrita* & external application of *Nimba ghrita* in the management of *Pama Kustha*.

2. MATERIAL AND METHODS:-

CTRI No. CTRI/2023/08/056140

ETHICAL CLEARANCE:

With due approval of this work by the IEC (Institutional Ethical Committee), Govt. Ayurvedic College and Hospital, Balangir vide IEC No. 597/G.A.C &H, Dt-19.03.2024. **Consent:-** Written consent was obtained from each patient participated in the study with prior proper information before starting the study, confidentiality of each patient was maintained.

Source of patients:- *Pama* (scabies) patients were randomly selected from OPD and IPD of Govt. Ayurvedic College & Hospital, Balangir, Saradeswari Govt. Hospital (which comes under Govt. Ayurvedic Hospital, Balangir) and the health camps organized by of Govt. Ayurvedic College & Hospital, Balangir irrespective of their age, sex and religion.

Method of collection of patients :- A special proforma was prepared in which include details of history taking, Physical sign and symptoms, subjective and objective parameters of *Pama*. With this proforma 32 no. of patients were randomly scrutinized and selected for clinical study, out of which 2 patients were dropped out. 30 patients of *Pama* were registered and divided into two equal groups.

Study design and grouping :

Methodology (Open Label Randomized controlled Trial study)

30 numbers of patients were taken for present study and all patients were divided into two equal groups i.e. Group A and Group B.



Group A (Trial Group):- 15 patients were treated with Khadira Ghrita externally for 30 days.
 Group B (Trial Group):- 15 patients were treated with Nimba Ghrita externally for 30 days.

Group design:-

GROUP A(BT).....VS..... GROUP A (AT)
GROUP B(BT).....VS.....GROUP B (AT)
GROUP A (AT).....VS.....GROUP B (AT)

(AT-After Treatment & BT- Before Treatment)

Criteria for selection of patients:

Inclusion criteria:-

- Patients having Pama as per classical sign and symptoms as in classical text.
- Patients of both the sex, irrespective of caste, religion etc diagnosed as the case of Pama or Scabies.
- The age group between 10 to 40 yrs.
- Newly diagnosed patients of Pama having sign and symptom before 10 to 15 days.

Exclusion criteria :-

- Kustha other than Pama/Scabies.
- Patients of both sex in the age below 10yrs and above 40yrs.
- Patient who suffering from any other systemic illness, immune deficiency disorder and metabolic disorder.
- Scabies with other complication of crust or hyperkeratosis.
- Accident cases, post operative cases, drug abuser, alcohol addicted, mentally retarded, psychiatrist abnormalities, pregnant and lactating mother.

Laboratory investigation-DC, TLC, ESR, FBS, Stool examination (RE&ME)

Selection of Drugs:- The selection of drugs were made on the basis of principle treatment advocated by Maharshi Charak in Kustha chikitsa. The drugs were identified and selected with the help of experts of Dept. of Dravyaguna, GAC&H, Balangir. The Clinical trial of the drug Khadira Ghrita and Nimba Ghrita were prepared as per good manufacturing practices and guidelines under supervision of experts of Dept. of Rasa Shastra & Bhaisajya Kalpana, GAC& H, Balangir.

Duration of Treatment-30 Days

Follow up Period : 1st, 15th & 30th days

Parameters of assessment :-

The effectiveness of the treatment was assessed by assessing Subjective and objective Parameters, On the basis of ayurveda classical sign and symptoms of Pama. The intensity of sign and symptoms of Pama was graded as follows :

Table No.-1:-Showing the Gradation of the Subjective and Objective Parameter:-

Subjective Parameter		
KANDU	No Itching	0
	Occasional Itching	1
	Persistent itching, without disturbing the routine work	2
	Severe Itching, disturbing the routine work	3
TODA	No Pain	0
	Occasional Pain	1
	Moderate Pain without disturbed sleep	2
	Sever Pain with disturbed sleep	3
DAHA	No <i>Daha</i>	0
	Occasional <i>Daha</i>	1
	Continuous <i>Daha</i> without disturbed sleep	2
	Sever <i>Daha</i> with disturbed sleep	3
Objective Parameter		
PITIKA	No <i>Pitika</i>	0
	<i>Pitika</i> almost disappears but the discoloration persists	1
	5-10 <i>Pitikas</i> in one square cm	2



	Uncountable <i>Pitikas</i> in the affected area	3
SRAVA	Absent Discharge	0
	Mild occasional Discharge	1
	Moderate Discharge after some pressure	2
	Severe Discharge without pressure	3

3. OBSERVATION AND RESULTS

Progress of Treatment: Collection of data on clinical efficacy of external application of Khadira Ghrita and Nimba Ghrita were observed and result were analysed statistically by using appropriate test.

OBSERVATION			
Subjective Parameters	1 st day treatment	15 st day treatment	30 th day treatment
Kandu			
Toda			
Daha			
Objective Parameters	1 st day treatment	15 st day treatment	30 th day treatment
Pitika			
Srava			

Result:-

Thirty patients of Pama were registered for the study. In the present study the incidence of Pama was more in 10-20 years (40%) age group, 60 % males, 100 % Hindus, 100% Literate, 60% were un-married, 90 % were from middle class family, 46.67 % were students, 86.67 % with mixed dietary habits, 53.33 % weren't having any type of addiction, 100 % were having disturbed sleep and 73.33% were Pitta-Kaphaja Prakriti.

Table No.:2.1 -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Kandu of patients

Kandu		Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	2.73	3.00	0.46	0.12	-3.508 ^b	0.000451	92.68	Sig
	AT	0.20	0.00	0.41	0.11				
Group B	BT	2.80	3.00	0.41	0.11	-3.502 ^b	0.000463	83.33	Sig
	AT	0.47	1.00	0.62	0.16				

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A and Group B. From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Chart no.1: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Kandu of patients

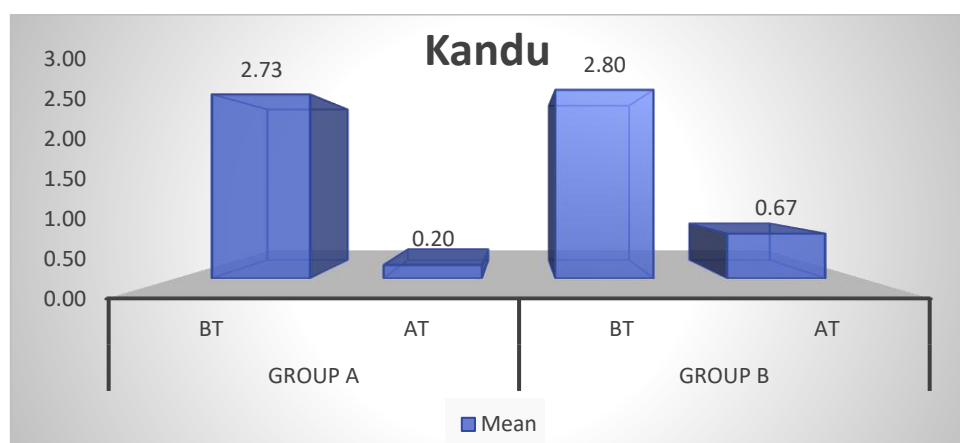




Table No.2.2: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Toda of patients

Toda		Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.80	2.00	0.56	0.14	-3.520 ^b	0.000432	88.89	Sig
	AT	0.20	0.00	0.41	0.11				
Group B	BT	2.27	2.00	0.59	0.15	-3.542 ^b	0.000396	73.53	Sig
	AT	0.60	1.00	0.51	0.13				

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A and Group B. From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Chart no.1.2: Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Toda of patients

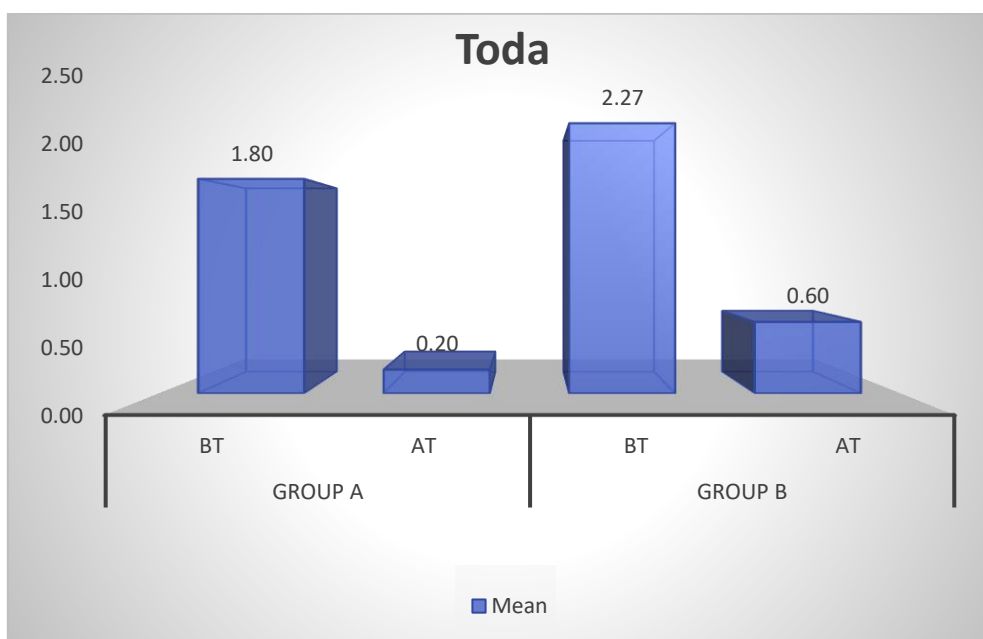


Table No.2.3: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Daha of patients

Daha		Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	2.00	2.00	0.65	0.17	-3.626 ^b	0.000287	90.00	Sig
	AT	0.20	0.00	0.41	0.11				
Group B	BT	2.27	2.00	0.59	0.15	-3.542 ^b	0.000396	73.53	Sig
	AT	0.60	1.00	0.51	0.13				

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A and Group B. From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.



Chart No.1.3: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Daha of patients

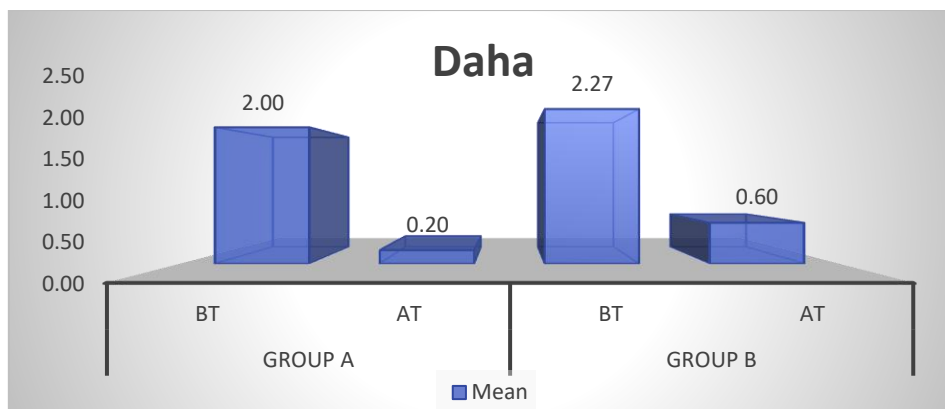


Table No.2.4: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Pitika of patients

Pitika		Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	2.80	3.00	0.41	0.11	-3.508 ^b	0.000451	90.48	Sig
	AT	0.27	0.00	0.46	0.12				
Group B	BT	2.73	3.00	0.46	0.12	-3.499 ^b	0.000467	73.17	Sig
	AT	0.73	1.00	0.70	0.18				

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A and Group B. From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Chart No.1.4: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Pitika of patients

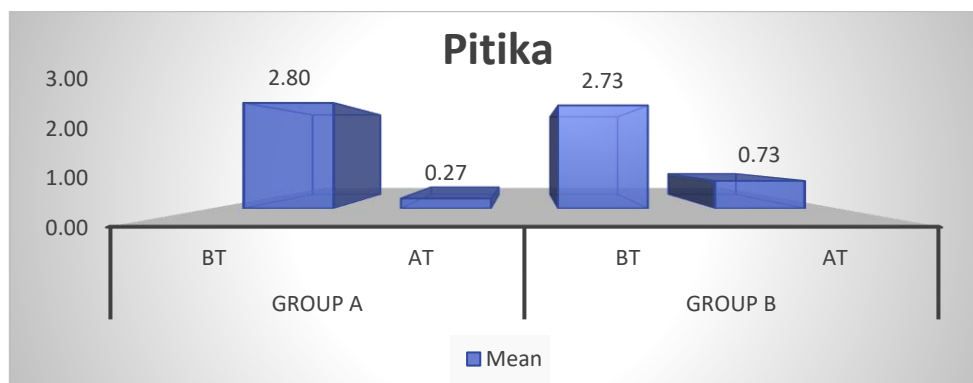


Table No.2.5: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Srava of patients

Srava		Mean	Median	SD	SE	Wilcoxon W	P-Value	% Effect	Result
Group A	BT	1.60	2.00	0.51	0.13	-3.520 ^b	0.000432	87.50	Sig
	AT	0.20	0.00	0.41	0.11				
Group B	BT	2.07	2.00	0.70	0.18	-3.508 ^b	0.000451	74.19	Sig
	AT	0.53	1.00	0.52	0.13				



Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A and Group B. From above table we can observe that, P-Value for Group A and Group B is less than 0.05. Hence, we can conclude that, effect observed in Group A and Group B is significant.

Chart No.1.5: -Showing the effect of external application of Khadira Ghrita (group- A) and external application of Nimba Ghrita (group- B) on Srava of patients

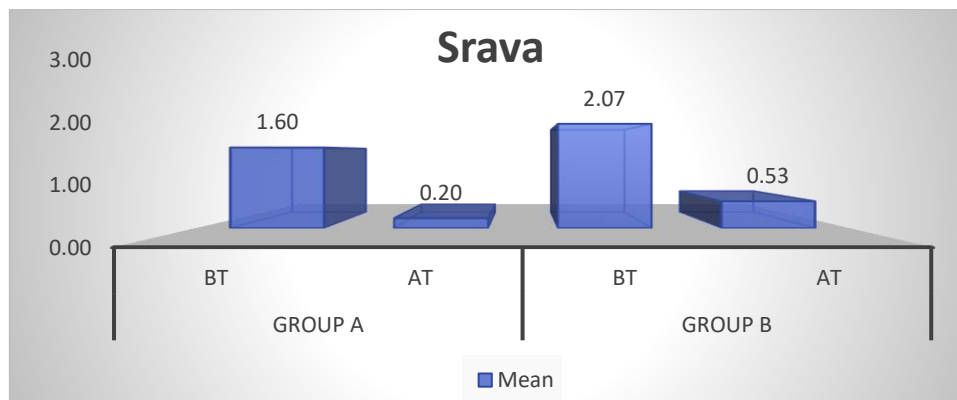


Table No.-2.6 Showing the Comparative effect of Trial Drugs between Group A and group B on both Subjective and Objective parameters

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	P-Value	Result
Kandu	Group A	15	18.03	270.50	74.500	0.008	Sig
	Group B	15	12.97	194.50			
	Total	30					
Toda	Group A	15	15.00	225.00	105.000	0.007	Sig
	Group B	15	16.00	240.00			
	Total	30					
Daha	Group A	15	16.50	247.50	97.500	0.004	Sig
	Group B	15	14.50	217.50			
	Total	30					
Pitika	Group A	15	18.70	280.50	64.500	0.001	Sig
	Group B	15	12.30	184.50			
	Total	30					
Srava	Group A	15	14.50	217.50	97.500	0.005	Sig
	Group B	15	16.50	247.50			
	Total	30					

Mann Whitney U Test is carried out for comparison between Group A and Group B. From above table, we can observe that, P-Value for almost parameters is less than 0.05. Hence, we can conclude that, there is significant difference between Group A and Group B.

Table no.2.7:- Showing the overall Clinical Assessment of Result in Patients (n=30)

Overall Effect	Group A		Group B	
	N	%	N	%
Marked Improvement	12	80.00%	9	60.00%
Moderate Improvement	3	20.00%	5	33.33%
Mild Improvement	0	0.00%	1	6.67%
No Improvement	0	0.00%	0	0.00%
TOTAL	15	100.00%	15	100.00%



It has been observed that, as per treatment, in Group A, 12(80%) were shown marked improvement, 3 (20.00%) were shown moderate improvement, none of the patients 17 were shown mild improvement and Unsatisfactory result. In Group B, 9 (60.00%) were shown marked improvement, (33.33%) were shown moderate improvement, 1 (6.67%) were shown mild improvement and none of the patients were shown unsatisfactory result.

Chart no.1.6: Showing the overall Clinical Assessment of Result in Patients

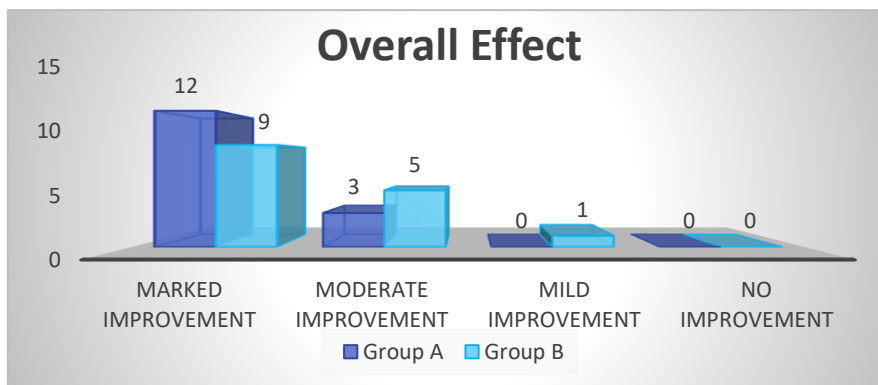


Fig.1:- Showing the result of Before treatment and After treatment



[BEFORE TREATMENT]



[AFTER TREATMENT]

4. DISCUSSION:-

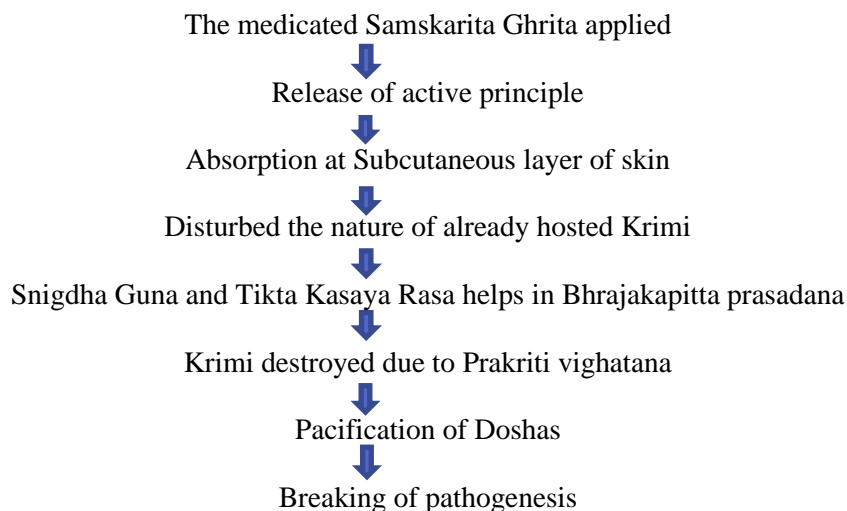
Discussion on selection of Khadira Ghrita and Nimba Ghrita

The treatment modalities used in this study are external application of Khadira Ghrita in group A and external application of Nimba Ghrita in group B.

- The Khadira Ghrita and Nimba Ghrita enhances their individual properties and offers a holistic approach to managing Pama Kustha by Enhanced antiparasitic action for eradicating mites and other pathogens, Comprehensive detoxification and purification of Rakta and Twak Dushti, Relief from itching, inflammation, and redness, promoting faster healing.
- It is a collection of three drugs i.e Khadirasara, Nimbatwak, Goghrita which are mentioned in Charak Samhita Chikita Sthana for the management of Pama Kustha Chikitsa. There was no research done before for the treatment of Pama Kustha with external use of Khadira Ghrita and external use of Nimba Ghrita.
- Ingredients of this formulation are easily available in the market, Method of preparation is quite simple.

Discussion on probable mode of action of Khadira Ghrita and Nimba Ghrita :

Hypotheses derived from textual sources:-



- For the manifestation of the disease “Pama” the ‘Kapha & Pitta Doshas’ are the main factors, which contribute the nucleus for the pathogenesis. Thus there is need of a drug which mainly acts on Kapha & Pitta Doshas.
- Due to Tikta-kasaya rasa of Khadira and Nimba, it pacifies Pitta & Kapha Doshas which eliminates Kandu & Srava due to destruction of Krimi by its Prakriti vighatana. Laghu & Rukshya guna it also pacifies the Pitta Kapha Doshas i.e. acting on Daha & Pidika, reduction in symptoms like Kandu and Daha may help in reducing the Toda also Katu Vipak and Sheeta Virya it Pacifies Pitta Rakta.
- Khadirasara mainly Prabhavataha acts on the Kushtha Vyadhi and also it had Kandughna property pacifies Kandu & Krimighna property. Due to Tikta kasaya & sheeta virya it helps in Rakta Prasadana and Rakta vardhaka.
- The Phytochemical action of Khadirasara, Catechin could decrease parasite numbers and growth and reduce parasite fatty acid synthesis with antimicrobial and Wound healing properties, Taxifolin Inhibit the abnormal proliferation of Keratinocytes act as a potent Antibacterial and Antifungal effect.
- Weather Nimba twak mainly Prabhavataha acts like Kandughna, Jantughna, Vrana Pachana-sodhana, Daha Pasaman property. Due to Tikta Rasa It helps in maintain of Sudha Rakta & pacifies Raktadushtigata Sotha.
- The Phytochemical action of Nimba Twak, Gallic acid epicatechin and catechin could reduced redness and irritation by decreasing inflammation on the skin, had Antimicrobial properties, Margolone had antibacterial properties, Cyclic trisulphide had Antifungal properties
- The drug selected for the study in the Ghrita form as it a best catalytic agent and easy to apply. Also Ghrita had the property of Tridosha samaka due to its snigdha property it pacifies the Rukshya guna of Vata Doshas, as it was Sheeta virya it pacifies Pitta Doshas and its “Samskaraanuvartanam”⁸ guna pacifies Kapha Doshas. Also its Yogavahita property helps in easy conduction of active principles of drugs with which it was prepared. It alleviates the symptoms of Daha due to its Nirvapana property.
- The Phytochemical action of ghrita i.e. Vit.-A, D, E, K and Butyric acid had the Antioxidant and Anti-inflammatory properties resist spoilage by microorganisms, also helps to maintain Twakasarta and acts as Rasayana for Twaka. of So this formulation helps in the management of Pama.
- Tikta Kasaya Rasa always subside Pitta i.e. Bhrajakapitta and ghrita which was itself a Pittasaman karaka. So both the formulation helps in the management of Pama.

Discussion on effect of the Khadira Ghrita and Nimba Ghrita on subjective and objective parameter of Pama:

➤ Effect on Kandu:

In this trial all the patient had the symptom of Kandu in both Groups. Kandu was present due to Kapha Doshas and Rasa, Rakta Dhatus Dushti. Khadira Ghrita was well known Kusthaghna & Kandughna. Tikta rasa, Laghuta and Rukshata of was antagonist of Guruta and Picchilata of Kapha and decreases Kandu. As Khadiraghrita & Nimba Ghrita both had Pitta-Kaphahara property. Nimba Ghrita also had Kandughna, Krimighna, Rakta Sodhaka properties. So that In Group A the percentage of effect was 92.68% and in Group B the percentage of effect was 76.19%. The P value for both the groups is <0.05 Hence both the groups are significant but in comparison Group A shows more significant result than Group B.



➤ **Effect on Toda:**

In this trial all the patient had the symptom of Toda in both Groups. Toda was the typical character of the Vata Dosha but in Rakta Pitta pravala Pama Kustha, Pitta anubandha Vata was the responsible factor for Toda. So the Toda was subside by the action of Khadira Ghrita and Nimba Ghrita by external application because, Ghrita had the specific property to reduce the Rukshya Guna of Vata by its Snigdha Guna and the vitiated Bhrajakapitta became normal by the help of Tikta Kasaya rasayukta. Dravya like Nimba and Khdira. So that In Group A the percentage of effect was 88.89% and in Group B the percentage of effect was 73.53%. The P value for both the groups was <0.05 Hence both the groups were significant but in comparison Group A shows more significant result than Group B.

➤ **Effect on Daha:**

In this trial all the patient had the symptom of Daha in both Groups. Daha was present due to Pitta Dosha and Rakta Dhatu Dushti. Daha has reduced significantly because of the Pitta-Kaphahara, Sheeta Virya, Dahasamaka and Rakta Sodhaka properties of the drugs. So that In Group A the percentage of effect was 90% and in Group B the percentage of effect was 73.53%. The P value for both the groups was <0.05 Hence both the groups were significant but in comparison Group A shows more significant result than Group B.

➤ **Effect on Pitika:**

In this trial all the patient had the symptom of Pitika in both Groups. Pitika was due to Pitta Dosha and Rakta, Mamsa Dhatu Dushti. From the above result it hypothesized that due to Tikta, Kasaya rasa and Sheeta Virya of Drugs reduced Pitika. Due to Rakta Sodhak, Rakta Prasadaka and Sothahara properties of drugs reduce number of Pitika. So that In Group A the percentage of effect was 90.48% and in Group B the percentage of effect was 73.17%. The P value for both the groups was <0.05 Hence both the groups were significant but in comparison Group A shows more significant result than Group B.

➤ **Effect on Srava:**

In this trial all the patient had the symptom of Daha in both Groups. Ushna and Drava guna of Pitta Tikshna and Snigdha Guna, vitiated Pitta and kapha dosha which were responsible for Srava. Sheeta Virya, Pitta-Kaphahara, and Rakta Sodhaka properties of the drugs helps in reduction of Srava. So that In Group A the percentage of effect was 87.50% and in Group B the percentage of effect was 74.19%. The P value for both the groups was <0.05 Hence both the groups are significant but in comparison Group A shows more significant result than Group B.

4. Discussion on overall effect of therapy:-

Out of 30 patients, Marked improvement was seen in 12 patients (80.00%) in Group A and 9 patients (60.00%) in Group B. Moderate improvement was seen in 3 patients (20.00%) in Group A and 5 patients (33.33%) in Group B. Mild improvement was 1 patient 6.67% in Group B and there was no mild improvement in Group A. During the entire duration of therapy, there was not any adverse/untoward effect or adverse drug reactions (ADRs) observed for both the trial groups. Here Group A showed better result in overall total parameters.

5. CONCLUSION:-

The following conclusions can be drawn from the research that is presented here.

As a Kshudra Kustha, Pama is dominant in Pitta-Kapha, and its signs and symptoms even indicate involvement of Tridosha and Krimi. Symptom likes Kandru, Toda, Daha, Pidika, Srava, were the cardinal feature. Scabies in modern view has similarity with Scabies & its types. Following conclusions were drawn after systemic clinical trials of Khadira Ghrita and Nimba Ghrita on 30 patients who were divided into two groups with 15 patients in each group.

- In Pama is Rasa, Rakta, Mamsa and Swedavaha Srotodushti were found chiefly and Pitta-Kapha were main Dosha who vitiated these Dhatu and Srotas.
- The fascinating symptom of Pama that causes Vata Prakopa and may worsen the ill condition is disturbed sleep.
- The external application of Khadira Ghrita and Nimba Ghrita has enormous effect. According to the principle of Samanya Vishesa Siddhanata¹⁸⁰ the Guna, Karma of above medicines are totally opposite to the lakshana of Pama. So the concept of "VISESASTU VIPRYAYA"⁹ proves that these two trial Drugs are effective due to Visesa Guna.
- Effect of the trial drugs i.e. Khadira Ghrita and Nimba Ghrita gives significant result in both subjective and objective parameters.
- There was Marked improvement result was found i.e. 80% patients in Group A, 60% patients in Group B. Moderate result was found 20.00% in Group A, 33.33% patients in Group B. Mild result 6.67% patients found in Group B.



- Thus it can be concluded that the effect of the medicine i.e Khadira Ghrita (external application) is more significant in reducing the subjective and objective parameter than Nimba Ghrita (external application) for the management of Kustha i.e Pama Kustha also justifies the Siddhanta of Kustha “Kustheshu raktapittapravaleshu visagjjitam Siddham”.

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10. DATA AVAILABILITY

This is an original manuscript, and the data contained within is available solely for research purposes through the principal investigators.

REFERENCES

1. Susruta Samhita by Kabiraj Ambika Dutta Shastri, Ayurveda tatwa sandipaka Hindi commentary, Published by Chaukhamba Sanskrit Samsthan, Varanasi, Reprint 2018, Kustha Sharira 4/4 pg no.-37.
2. Charak Samhita of Agnivesh, Edited with the Vidyotini Hindi commentary, By Sri Satya Narayana Sastri, Published by Chaukhamba Bharati Academy, Varanasi, Reprint 2017, Kustha Chikitsa 7/13 pg no-250
3. Susruta Samhita by Kabiraj Ambika Dutta Shastri, Ayurveda tatwa sandipaka Hindi commentary, Published by Chaukhamba Sanskrit Samsthan, Varanasi, Reprint 2018, Kustha Nidan.5/33 pg no.-325.
4. Susruta Samhita by Kabiraj Ambika Dutta Shastri, Ayurveda tatwa sandipaka Hindi commentary, Published by Chaukhamba Sanskrit Samsthan, Varanasi, Reprint 2018, Kustha Nidan 5/14 pg no.-322.
5. Charak Samhita of Agnivesh, Edited with the Vidyotini Hindi commentary, By Sri Satya Narayana Sastri, Published by Chaukhamba Bharati Academy, Varanasi, Reprint 2016, Cha./Vi.7/11 pg no-726
6. Susruta Samhita by Kabiraj Ambika Dutta Shastri, Ayurveda tatwa sandipaka Hindi commentary, Published by Chaukhamba Sanskrit Samsthan, Varanasi, Reprint 2018, Kustha Nidan.5/6 pg no.-320.
7. Charak Samhita of Agnivesh, Edited with the Vidyotini Hindi commentary, By Sri Satya Narayana Sastri, Published by Chaukhamba Bharati Academy, Varanasi, Reprint 2017, Kustha Chikitsa 7/135 pg no-269
8. Charak Samhita of Agnivesh, Edited with the Vidyotini Hindi commentary, By Sri Satya Narayana Sastri, Published by Chaukhamba Bharati Academy, Varanasi, Reprint 2016, Jwara Nidan .1/40 pg no-617
9. Charak Samhita of Agnivesh, Edited with the Vidyotini Hindi commentary, By Sri Satya Narayana Sastri, Published by Chaukhamba Bharati Academy, Varanasi, Reprint 2016, yajjapurishya adhyaya .su.1/45 pg no-16.