



## Research Article

### A CLINICAL STUDY ON THE EFFICACY OF *DURVADYA TAILA* ON *PAMA* W.S.R. TO SCABIES IN CHILDREN

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**KEYWORDS:** *Durvadya Taila*, Gama Benzene Hexachloride, *Pama*, Scabies.

#### ABSTRACT

*Pama Vyadhi* is one of the commonest diseases found in the low socio economic class. Scabies is a contagious skin infection that spreads rapidly in crowded conditions and is found worldwide. Personal hygiene is an important preventive measure and access to adequate water supply is important (W.H.O.).

Minimum 60 diagnosed children with *Pama* (Scabies) were randomly selected for the clinical study and divided into two groups. The sensitivity test of *Durvadya Taila* and Gama Benzene Hexachloride 1% Lotion with 0.5ml test dose were applied for one hour and effects are observed for next 3hr. Patients were registered for the clinical study after written consent of their parents.

In group A out of 30 children, 50% children were completely cured while markedly improvement occurred in 13% children, moderately improvement occurred in 37% children and none of the children were found in mild improvement as well as in unchanged at all group where as in group B out of 30 children 70% children were completely cured while markedly improvement occurred in 17% children, moderate improvement occurred in 13% children and none of the children were found in mild improvement as well as unchanged at all group. Overall effect of therapy was more significant in Group B.

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#### INTRODUCTION

Ayurveda has given importance to skin diseases since the era of Vedas and later on in *Samhita Kala* the study of skin diseases were done elaborately and a separate chapter on *Kustha* found the place, but in modern medicine the condition was different. As per Author Rook in Text Book of Dermatology, it was only in the 19th century, that the subject of Dermatology was developed. Before this well advanced physicians, with few exceptions were little concerned with the skin apart from the exanthematous eruptions of acute fever. Later some scholars like Heberden and Cullen in last 20<sup>th</sup> century laid the foundation on which the pioneer specialists and dermatologists of the following century were able to build.

**Selection of Disease:** India is the second largest population country in the world and area wise being seventh. Being a developing country much population is living in lower socioeconomic class more over 90% of population live in rural area. Most of the people are not conscious about their health and personal hygiene which lead to many systemic diseases like skin diseases, tuberculosis, cholera etc. It is found that "*Pama*" *Vyadhi*<sup>[1]</sup> is one of the commonest diseases found in the low socio economic class and occurs in person who doesn't take bath regularly and do not follow guidelines of hygiene. Sign symptom, pathogenesis and treatment of *Pama* are very well described in Ayurvedic texts which can correlate with scabies in

modern paediatrics. This indicates that disease is one of the types of *Kushtha*.

So far no study has been conducted for evaluation of *Durvadya Taila*<sup>[2]</sup> in above problem. Therefore this study was conducted to evaluate the efficacy of *Durvadya Taila* in the management of *Pama*.

**Aim and Objectives**

**Aim:** To evaluate the efficacy of *Durvadya Taila* on *Pama*.

**Objectives**

- 1) To find out the Aetio-pathogenesis of *Pama* in children.
- 2) To study of *Pama* and scabies from Ayurvedic and modern view.

**Materials and Methods**

**Selection of the patients:** Total 60 patients suffering from *Pama* visiting to college hospital O.P.D. of department of Kaumarbhritya of Y.A.C.Dharmarth Rughalaya, Kodoli were selected in study.

**Inclusion Criteria**

- 1) Age group 5 to 15 years.
- 2) The children having uncomplicated *Pama* (scabies) only.
- 3) Patients of both sexes.
- 4) Patients irrespective of cast, religion, economic status.

**Exclusion Criteria**

- 1) The child suffering from any chronic skin diseases, immune suppressed systemic disorder.
- 2) Norwegian scabies.

**Trial Group**

Yoga	<i>Durvadya Taila</i>
Mode of administration	<i>Bahya Chikitsa</i> (external application)
Dose	As per requirement depends upon extend of lesions.
Duration	7days
Kal	Apply at morning and night.

**Control Group**

Yoga	Gama benzene hexachloride 1% lotion
Mode of administration	<i>Bahya Chikitsa</i> (external application)
Dose	As per requirement depends upon extend of lesions.
Duration	1 day.
Kal	Apply at night.

**Advice**

1. In both groups patients were not be allowed to wear any cloths for about 30 min. after application of drugs for their better absorption.
2. The sensitivity test of *Durvadya Taila* and Gama Benzene Hexachloride 1% Lotion with 0.5 ml test dose were applied for 1 hr and effects are observed for next 3 hrs. Patients were registered for the clinical study after written consent of their parents.

- 3) During the course of the study treatment, if any serious condition or any serious complication which require urgent treatment.

**Protocol of Study**

**Consent:** A voluntary, signed, witnessed, informed consent /Assent were obtained from the parent /guardian.

**Proforma:** The details of the patients and the disease starting from demographic profile that includes age, sex, religion, education etc., are noted to show the pattern and incidence of disease. After recording demographic profile, detailed history was taken, followed by physical and systemic examination. In addition to it *Strotas*, *Ashtavidha* and *Dashavidha pariksha* were carried out and the findings related to *Nidanas*, *Rupa*, *Dosha*, *Dushya* were also noted in the proforma.

**Method of Collection of Data:** Minimum 60 diagnosed children with *Pama* (Scabies) were randomly selected for the clinical study and divided into two groups.

**Observation period:** The treatment was given for 7 days and final assessment was done on B.T. (1<sup>st</sup> day) and A.T. (7<sup>th</sup> day). Clinical responses were assessed on 3<sup>th</sup>, 5<sup>th</sup>, 7<sup>th</sup> and 10<sup>th</sup> days of treatment.

**B) Methods**

**Study Design:** Randomize controlled clinical Study

**Clinical study:** Total 60 patients of *Pama* were randomly divided into two groups.

**Group I) (Trial Group):** 30 patients of this group were treated with *Durvadya Taila*.

**Group II) (Control Group):** 30 patients of this group were treated with Gama Benzene Hexachloride 1%Lotion.

3. During the treatment, the children were kept isolated from other children. The family members who are affected with the scabies disease were advised for treatment.

**Observation and Result-** Collection of data on clinical efficacy of *Durvadya*-Tail were observed and result were analyzed statistically by using appropriate test

Observation						
		1st day of Treatment	3rd day of treatment	5th day of treatment	7th day of treatment	10th day of treatment
1)	<i>Sukshma, Shweta, Arunavarni, Pitika</i> (Papules, Vesicles, Black head papules)					
2)	<i>Kanduparidaha</i> (intensive pruritus)					
3)	<i>Strava</i> (Superimposed eczematous dermatitis)					

**Criteria of Assessment:** Parameters and observations based on patients signs and symptoms and local examination were recorded on case paper in tabular form before, during and after treatment. Parameters will be graded from 0-3 to know the efficacy of the treatment.

**Parameters of Assessment**

**Gradations:** *Shyava, Arunavarnipitika* (Black head papules, vesicles)

Grade 0 : No black head papules, vesicles any over body

Grade 1 : Two-Three Black head papules, vesicles present over only one part of body.

Grade 2 : More than two-three black head papules, vesicles but countable, present over more than two part of body but not reaches to genital organ

Grade 3 : Uncountable black head papules,

vesicles present more than two part of body and reaches to genital organ i.e., present all over body

**b) *Kandu Paridah* (Pruritus)**

Grade 0 : Absent pruritus.

Grade 1 : Occasional pruritus.

Grade 2 : Persistent, do not disturb routine.

Grade 3 : Persistent, disturb routine work.

**c) *Strava* (secretion)**

Grade 0 : Absent secretion.

Grade 1 : Mild occasional oozing.

Grade 2 : Moderate oozing after some pressure.

Grade 3 : Sever oozing without pressure.

**Investigations:** As *Pama* (scabies) can be diagnosed clinically so there is no need of investigations.

**Table 1: Age wise classifications of 60 children**

Age Group	Group A	%	Group B	%	TOTAL	%
5-7	14	46.7%	9	30%	23	38.3%
8-10	9	30%	12	40%	21	35%
11-13	7	23.3%	7	23.3%	14	23.3%
14-16	0	0%	2	6.7%	2	3.3%
Total	30	100%	30	100%	60	100%

In Group A, 14 patients (46.7%) belongs to age group 5-7 years, 9 (30%) belongs to age group 8-10 years, 7 (23.3%) belongs to age group 11-13 years. In Group B, 9 patients (30%) belongs to age group 5-7 years, 12 (40%) belongs to age group 8-10 years, 7 (23.3%) belongs to age group 11-13 years and 2 (6.7%) belongs to age group 14-16 years.

**Table 2: Sex wise classifications of 60 children**

SEX	Group A	%	Group B	%	TOTAL	%
Male	18	60%	20	66.7%	38	63.3%
Female	12	40%	10	33.3%	22	36.7%
Total	30	100%	30	100%	60	100%

In group A, 18 patients (60%) are male and 12 (40%) are female.

In group B, 20patients (66.7%) are male and 10 (33.3%) are female.

**Table 3: Weight wise classifications of 60 children**

Weight	Group A	%	Group B	%	TOTAL	%
14-18	10	33.3%	5	16.7%	15	25%
19-23	17	56.7%	15	50%	32	53.3%
24-28	2	6.7%	5	16.7%	7	11.7%
29-33	0	0%	3	10%	3	5%
34-38	1	3.3%	2	6.7%	3	5%
TOTAL	30	100%	30	100%	60	100%

In Group A, 10 patients (33.3%) having weight between 14-18 Kg, 17 (56.7%) having weight between 19-23 kg, 2 (6.7%) having weight between 24-28 kg, 1 (3.3%) having weight between 34-38 kg. In Group B, 5 patients (16.7%) having weight between 14-18 Kg, 15 (50%) having weight between 19-23 kg, 5 (16.7%) having weight between 24-28 kg, 3 (10%) having weight between 29-33 kg, 2 (6.7%) having weight between 34-38 kg.

**Table 4: Religion wise classifications of 60 children**

Religion	Group A	%	Group B	%	TOTAL	%
Bauddha	4	13.3%	3	10%	7	11.7%
Hindu	26	86.7%	27	90%	53	88.3%
TOTAL	30	100%	30	100%	60	100%

In group A, 4 patients (13.3%) were Bauddha and 26 (86.7%) were Hindu. In Group b, 3 patients (10%) were Bauddha and 27 (90%) were Hindu.

**Table 5: Parents Occupation wise distribution of 60 Children**

Occupation of Parent	Group A	%	Group B	%	TOTAL	%
Business	3	10%	2	6.7%	5	8.3%
Farmer	15	50%	15	50%	30	50%
Labour	7	23.3%	9	30%	16	26.7%
Service	5	16.7%	4	13.3%	9	15%
TOTAL	30	100%	30	100%	60	100%

In group A, Occupation of parents was, 3 (10%) Businessman, 15 (50%) Farmer, 7 (23.3%) Labour and 5 (16.7%) were doing service. In group B, Occupation of parents was, 2 (6.7%) Businessman, 15 (50%) Farmer, 9 (30%) Labour and 4 (13.3%) were doing service.

**Table 6: Socio-economic status of the family**

SES	Group A	%	Group B	%	TOTAL	%
Middle	21	70%	19	63.3%	40	66.7%
Poor	9	30%	11	36.7%	20	33.3%
TOTAL	30	100%	30	100%	60	100%

In Group A, Socio Economic Status was, 21 (70%) belongs to Middle Class followed by 9 (30%) belongs to Poor Class. In Group B, Socio Economic Status was, 19 (63.3%) belongs to Middle Class followed by 11 (36.7%) belongs to Poor Class.

**Table 7: Habitat wise classifications of 60 children**

Habitat	Group A	%	Group B	%	TOTAL	%
Rural	23	76.7%	23	76.7%	46	76.7%
Semi Urban	5	16.7%	5	16.7%	10	16.7%
Urban	2	6.7%	2	6.7%	4	6.7%
Total	30	100%	30	100%	60	100%

In Group A as well as in Group B, 23 patients (76.7%) live in Rural area, 5 (16.7%) lives in Semi Urban Area and 2 (6.7%) lives in Urban Area.

**Table 8: Birth history wise classifications of 60 children**

Birth History	Group A	%	Group B	%	Total	%
FTLSCS	7	23.3%	5	16.7%	12	20%
FTND	16	53.3%	21	70%	37	61.7%
PTLSCS	2	6.7%	1	3.3%	3	5%
PTND	5	16.7%	3	10%	8	13.3%
TOTAL	30	100%	30	100%	60	100%

In Group A, 7 (23.3%) patients have FTLSCS history, 16 (53.3%) have FTND, 2 (6.7%) have PTLSCS, 5 (16.7%) have PTND. In Group B, 5 (16.7%) patients have FTLSCS history, 21 (70%) have FTND, 1 (3.3%) have PTLSCS, 3 (10%) have PTND.

**Table 9: Immunization wise classifications of 60 children**

I/H	Group A	%	Group B	%	TOTAL	%
Improper	6	20%	4	13.3%	10	16.7%
Proper	24	80%	26	86.7%	50	83.3%
TOTAL	30	100%	30	100%	60	100%

In Group A, 6 patients (20%) had improper immunization and 24 (80%) had Proper immunization history. In Group B, 4 patients (13.3%) had improper immunization and 26 (86.7%) had Proper immunization history.

**Table 10: Nutritional Status wise classifications of 60 children**

Nutritional Status	Group A	%	Group B	%	Total	%
G1	3	10%	4	13.3%	7	11.7%
NN	27	90%	26	86.7%	53	88.3%
TOTAL	30	100%	30	100%	60	100%

As shown in above table Group A, 3 patients (10%) were in Grade1 Nutrition and 27 (90%) were having normal nutrition. In Group B, 4 patients (13.3%) were in Grade1 Nutrition and 26 (86.7%) were having normal nutrition.

**Table 11: Contact history of Scabies**

Contact H/O	Group A	%	Group B	%	Total	%
NC	9	30%	9	30%	18	30%
C	21	70%	21	70%	42	70%
TOTAL	30	100%	30	100%	60	100%

In Group A as well as, 21 (70%) patients were Contacted while 9 (30%) patients were not contacted

**Table 12: Personal Hygiene wise classifications of 60 children**

Personal Hygiene	Group A	%	Group B	%	TOTAL	%
PPH	12	40%	7	23.3%	19	31.7%
IPH	18	60%	23	76.7%	41	68.3%
TOTAL	30	100%	30	100%	60	100%

In Group A, 18 (60%) Patients were having improper personal hygiene while 12 (40%) were having proper personal hygiene. In Group B, 23 (76.7%) Patients were having improper personal hygiene while 7 (23.3%) were having proper personal hygiene.

**Table 13: Prakriti wise classifications of 60 children**

Prakriti	Group A	%	Group B	%	TOTAL	%
PK	21	70%	18	60%	39	65%
VK	4	13.3%	6	20%	10	16.7%
VP	5	16.7%	6	20%	11	18.3%
TOTAL	30	100%	30	100%	60	100%

In Group A, 21 patients (70%) were of *Pitta Pradhan Vata Prakriti*, 4 (13.3%) were of *Vatapradhan Kapha Prakriti* and 5 (16.7%) were of *Vatapradhan Pitta Prakriti*. In Group B, 18 patients (60%) were of *Pitta*

*Pradhan Vata Prakruti*, 6 (20%) were of *Vatapradhan Kapha Prakruti* and 6 (20%) were of *Vatapradhan Pitta Prakruti*.

**Table 14: Koshta wise classifications of 60 children**

Koshtha	Group A	%	Group B	%	TOTAL	%
Krura	5	16.7%	4	13.3%	9	15%
Madhyam	13	43.3%	15	50%	28	46.7%
Mrudu	12	40%	11	36.7%	23	38.3%
TOTAL	30	100%	30	100%	60	100%

In Group A, 5 patients (16.7%) have *Krura koshtha*, 13 (43.3%) have *Madhyam Koshtha*, 12 (40%) have *Mrudu Koshtha*. In Group B, 4 patients (13.3%) have *Krura koshtha*, 15 (50%) have *Madhyam Koshtha*, 11 (36.7%) have *Mrudu Koshtha*.

**Table 15: Appetite wise classifications of 60 children**

Appetite	Group A	%	Group B	%	TOTAL	%
Good	10	33.3%	6	20%	16	26.7%
Moderate	17	56.7%	20	66.7%	37	61.7%
Poor	3	10%	4	13.3%	7	11.7%
TOTAL	30	100%	30	100%	60	100%

In Group A, 10 patients (33.3%) were having good appetite, 17 (56.7%) were having moderate appetite and 3 (10%) were having Poor Appetite. In Group B, 6 patients (20%) were having good appetite, 20 (66.7%) were having moderate appetite and 4 (13.3%) were having Poor Appetite.

**Table 16: Dietary habits wise classification of 60 children**

Diet	Group A	%	Group B	%	TOTAL	%
Mix	25	83.3%	26	86.7%	51	85%
Veg	5	16.7%	4	13.3%	9	15%
TOTAL	30	100%	30	100%	60	100%

In Group A, 25 patients (83.3%) were having mix diet while 5 (16.7%) were having veg diet. In Group B, 26 patients (86.7%) were having mix diet while 4 (13.3%) were having veg diet.

**Table 17: Sleep wise classifications of 60 children**

Sleep	Group A	%	Group B	%	TOTAL	%
DS	24	80%	16	53.3%	40	66.7%
SS	6	20%	14	46.7%	20	33.3%
TOTAL	30	100%	30	100%	60	100%

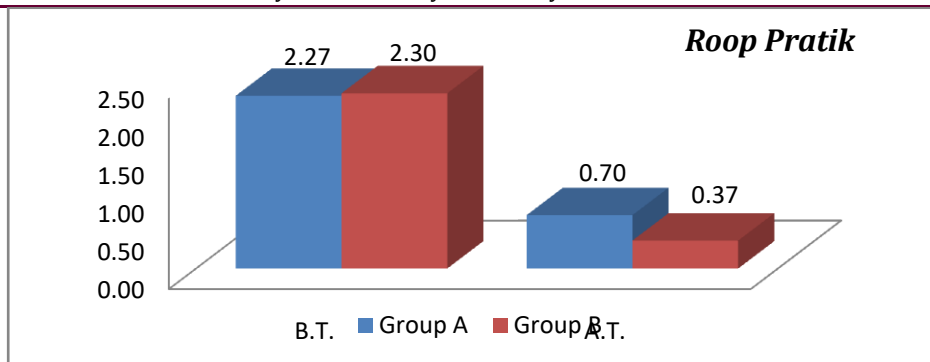
In Group A, 24 patients (80%) were having disturbing sleep, and 6 (20%) were having sound sleep. In Group B, 16 patients (53.3%) were having disturbing sleep, and 14 (46.7%) were having sound sleep.

#### Effect of Therapy

**Table 18: Comparative Analysis of improvement between Groups: *Roop Pratik***

<i>Roop Pratik</i>	B.T.		A.T.		% Effect	Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Mean	SD	Mean	SD				
Group A	2.27	0.78	0.70	0.84	69.12	-4.886 <sup>a</sup>	<0.001	Significant
Group B	2.30	0.70	0.37	0.61	84.06	-4.862 <sup>a</sup>	<0.001	Significant

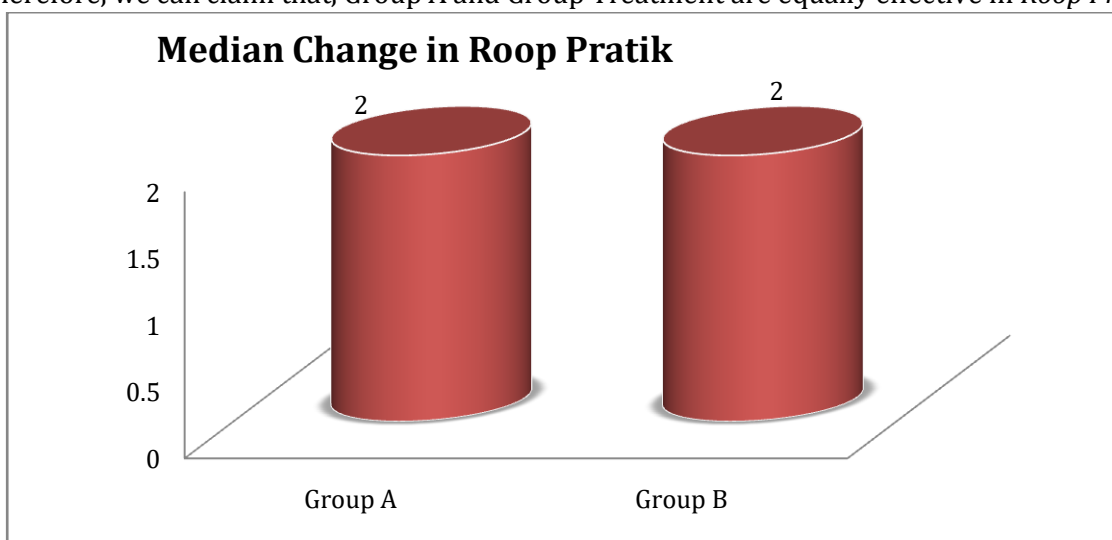
As shown in above table effect of Trial Group i.e. Group A and Control Group i.e. Group B on *Roop Pratik* was significant (P<0.001).



**Table 19: Comparative Analysis of improvement between Groups**

Roop Pratik	Median Improvement	Mann-Whitney U statistic	P- Value
Group A	2	325.5	0.057
Group B	2		

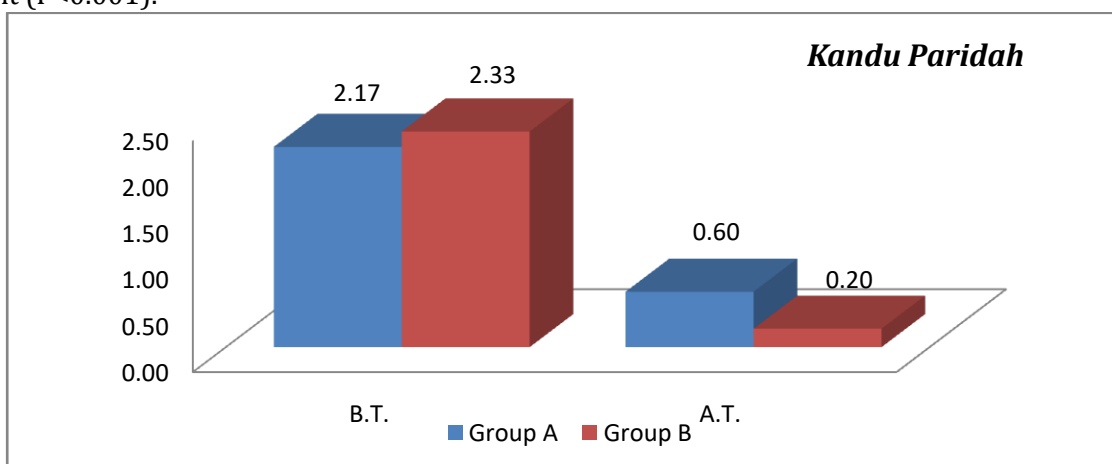
Distribution of improvements in *Roop Pratik* for Group A & Group B were not significantly different (P = 0.057), therefore, we can claim that, Group A and Group Treatment are equally effective in *Roop Pratik*.



**Table 20: Comparative Analysis of improvement between Groups *Kandu Paridah* (Pruritus)**

<i>Kandu Paridah</i>	B.T.		A.T.		% Effect	Wilcoxon Signed Rank Statistic 'W'	P- Value	Result
	Mean	SD	Mean	SD				
Group A	2.17	0.79	0.60	0.86	72.31	-4.886 <sup>a</sup>	<0.001	Significant
Group B	2.33	0.76	0.20	0.55	91.43	-4.862 <sup>a</sup>	<00001	Significant

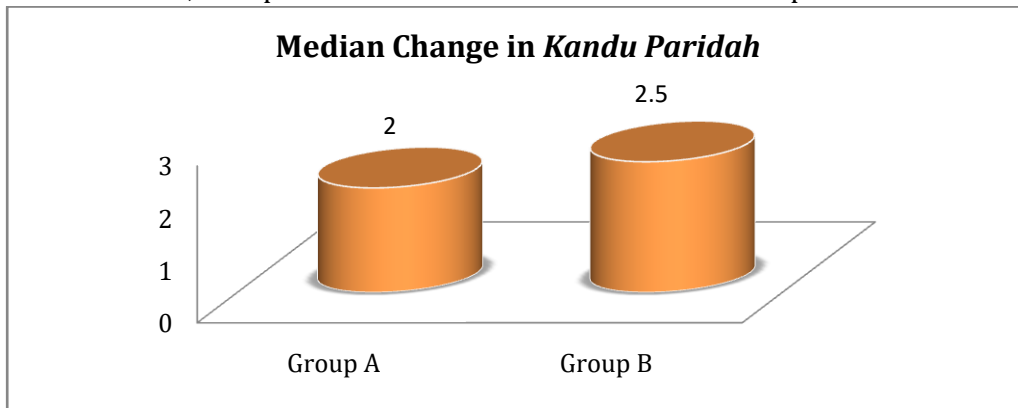
As shown in above table effect of Trial Group i.e. Group A and Control Group i.e. Group B on *Roop Pratik* was significant (P<0.001).



**Table 21: Comparative Analysis of improvement between Groups: *Kandu Paridah***

<i>Kandu Paridah</i>	Median Improvement	Mann Whitney U statistic	P- Value
Group A	2	289.5	0.011
Group B	2.5		

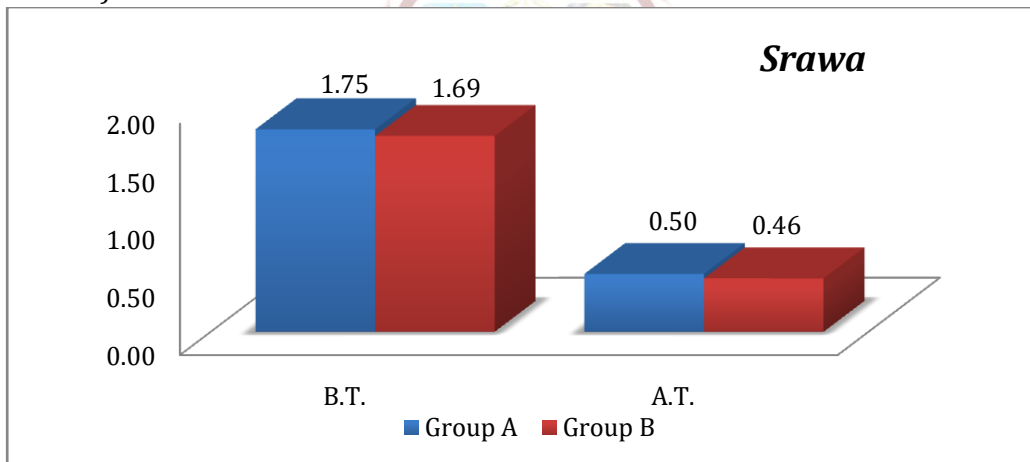
Distribution of improvements in *Roop Pratik* for Group A & Group B were significantly different (P = 0.011), therefore, we can claim that, Group B Treatment is more Effective than Group A Treatment.



**Table 22: Comparative Analysis of improvement between Groups: *Srawa***

<i>Srawa</i>	B.T.		A.T.		% Effect	Wilcoxon Signed Rank Statistic 'W'	P-Value	Result
	Mean	SD	Mean	SD				
Group A	1.75	0.62	0.50	0.67	71.43	-4.886 <sup>a</sup>	<0.001	Significant
Group B	1.69	0.75	0.46	0.66	72.73	-4.862 <sup>a</sup>	<0.001	Significant

As shown in above table effect of Trial Group i.e. Group A and Control Group i.e. Group B on *Srawa* was significant (P<0.001).

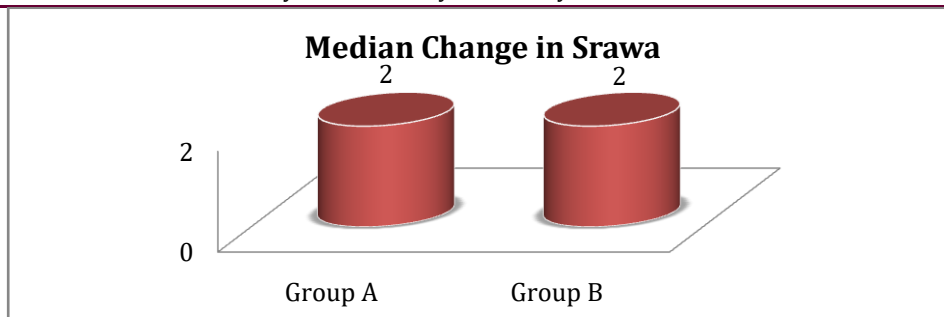


**Table 23: Comparative Analysis of improvement between Groups: *Srawa***

<i>Srawa</i>	Median Improvement	Mann-Whitney U statistic	P- Value
Group A	2	72.0	0.639
Group B	2		

Distribution of improvements in *Srawa* for Group A & Group B were not significantly different (P = 0.639), therefore, we can claim that, Group A and Group Treatment are equally effective in *Srawa*.



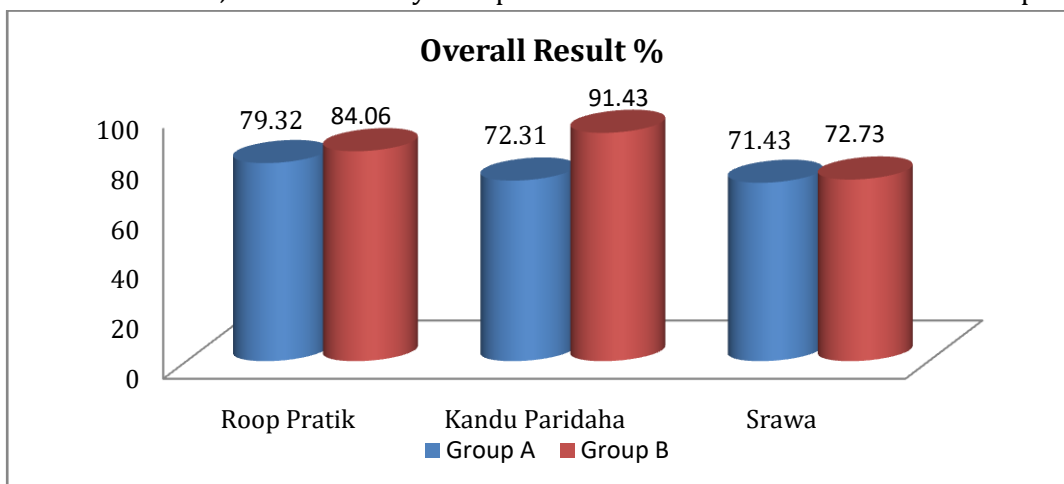


**Table 24: Overall Result**

Symptom	Overall Result		Significance
	Group A	Group B	
Roop Pratik	79.32	84.06	Significant
Kandu Paridaha	72.31	91.43	Significant
Srawa	71.43	72.73	Significant
<b>Overall Result</b>	<b>74.35</b>	<b>82.74</b>	<b>Significant</b>

Above table of overall result shows that Group A and Group B both are significant. But Group B is more significant in all symptoms.

Therefore, we can claim that, in overall study Group B Treatment is more effective than Group A Treatment



**DISCUSSION**

Discussion is the most imperative part in any kind of research work. Discussion is the logical reasoning, starting with critically analyzing the problem, relating it to previous knowledge and ideas then implicating the observations made and results obtained to draw a conclusion can fulfil the purpose of research work i.e., to draw some conclusion from the observations and results. Thus it is a bridge which connects the findings of a trial with conclusions.

**Discussion on conceptual study**

**Concept of Pama:** The word *Pama* is derived from Pa + Man in which in general means -*Khujali, Kharuja*. In this context, this is characterized by eruption of *Shyaw, Arunvarni Pitika* with intensive itching due to *Vimarga gamana* of vitiated *Tridoshato Twaka, Rakta, Mamsa Dhatu*. The *Pama* is mainly caused by the influence of *Twakadushati*. Essential factor in this condition is the eruption of

*Shyaw Arunavarni Pitika* with intensive itching and sometimes with minimal *Strawa* in the region of *Spika, Pani Karpure*.

*Pama* is the most common *Aoupsargika Roga*. It resembles with the Scabies in accordance's with its sign and symptoms such as *Shyaw, Arun varni Pitika* (Black head papules), *Kandu* (itching) and *Strava* (occasional mild discharge). The site of formation *Pitika* i.e., *Spika, Pani Karpure*, mentioned by Acharyas are exactly correlated with the sites of Scabies such as buttock, hand webs, elbow flexures. In Ayurveda according to Acharya Sushruta, *Pama* comes under *Aoupasargika Roga* i.e., transferred from person to person likewise modern science also explains the mode of transmission of Scabies from person to person. In both the Charaka Samhita (Cha./Vi.7/11) and Sushruta Samhita (Su./Ni./5/6) Acharyas mentioned that *Kushta* can be also caused by the *Krimi*.

**Discussion on selection of drugs :** *Pama* is due to the predominance of *Pitta* and *Shleshma* which leads to discoloration of the skin like *Shyava*, *Aruna* and *Shweta Varna pittika* associated with *Pitta* related symptoms like *Paridaha*, *Paka* and *Kapha* related features like *Kandu*, *Srava*, *Kleda* etc. Hence the treatment was aimed to *Kapha- Pittahara* properties. Ayurvedic texts have different herbal combinations for successful treatment of *Pama*. *Durvadya Taila* been selected for present study because the drug having *Khaphapitta shamak*, *Raktaprasadaka*, *Kushtaghna*, *Khacchu*, *Vicharchika*, *pama*, *Daha Prasamaka* and *Kaphahara*. *Durvadya Taila* is described in *Bhaishajya Ratnavali Kushtha Chikitsa*. (B.R.Kushta chi. 54/281).

**Discussion on preparation of drugs:** The *Durvadya Taila* was prepared with *Durva Swaras* and *Tila Taila* in quantity 1:4 respectively.

**Discussion on selection of Drug form:** The drug selected for study is in the *Taila* form. Here *Taila Kalpana* was selected because in this form, drug is easy to apply. Also *Yogavahita*, *Sanskaranuvarth* properties of *Taila Kalpana* helps in easy conduction of active principles of drugs with which it is prepared. *Taila* also helps to maintain *Twakasarta* and acts as *Rasayana* for *Twaka* by maintaining proper functioning of *Vata dosha*.

### c) Discussion on clinical study

**Discussion on Research design:** The study was intended as a randomized, control observational clinical study for the efficacy of *Durvadya Taila* in the treatment of *Pama* in children w.s.r. to Scabies aged 5–15 yrs with irrespective of their sex, religion and socio economic status.

**Discussion on clinical study method:** For the present Clinical study total 63 diagnosed children of *Pama* (Scabies) (fulfilling the inclusion criteria) were selected for the study, out of which 3 patients (2 patients from group A and 1 patient from group B) were dropped out. The 60 patients were randomly divided into two equal groups i.e. Group A and Group B. In Group A external application of *Durvadya Taila* was given and for Group B external application of *Gammabenzen Hexachloride* 1% lotion was advised. Treatment was carried out for 7 days in Group A and in Group B for 1 day. Observations like their age, sex, socioeconomic status, personal history etc., were documented. Complaints observed before and after the treatment were recorded separately in tabular form.

### Discussion on Effect of Therapy

**On *Pitika* (within groups):** In group A, *Pitika* was present in all 30 children before treatment. There

was relief occurred by 79.32% Patients in Group A with *Durvadya Taila* after treatment. In group B, *Pitika* was present in all 30 children before treatment. There was relief occurred by 84.06% patients in Group B with *Gammabenzen hexachloride* after treatment.

**In between groups:** Relief in *Pitika* in both the groups was significant under the probability of <0.001%. For the sign *Pitika*, *Gmmabenzen Hexachloride* showed more significant result as compared to *Durvadya Taila*.

**On *Kandu* (within group):** In both groups *Kandu* was present in all 30 children before treatment. *Kandu* was relieved by 72.31% in group A while in Group B it was relieved by 91.43%

**In between groups:** Relief in *Kandu* in both the Groups was significant under the probability of <0.001%. In *Kandu* *Gmmabenzen Hexachloride* showed more significant result as compared to *Durvadya Taila*.

**On *Srava* (within groups):** In group A, *Srawa* was present in 12 patients before treatment. There was relief occurred by 71.42% Patients in Group A with *Durvadya Taila* after treatment. In group B, *Srawa* was present in all 13 patients before treatment. There was relief occurred by 72.73% patients in Group B with *Gammabenzen hexachloride* after treatment.

**In between groups:** Relief in *Kandu* in both the Group was significant under the probability of <0.001%. For the sign *Srava*, both the drugs i.e., *Durvadya Taila* and *Gammabenzen hexachloride* showed relief in approximately similar way.

**A. On Overall Effect of the Therapies:** In group A out of 30 children, 50% children were completely cured while markedly improvement occurred in 13% children, moderately improvement occurred in 37% children and none of the children were found in mild improvement as well as in unchanged at all group where as in group B out of 30 children 70% children were completely cured while markedly improvement occurred in 17% children, moderately improvement occurred in 13% children and none of the children were found in mild improvement as well as unchanged at all group. Overall effect of therapy was more significant in Group B.

**Discussion on mode of action drug:** The drug *Durvadya Taila* having properties such as, Anthelmintic, Antibacterial, Antiviral, Antifungal, Antipyretic, Antibiotic, Insecticidal, Antimicrobial, Hypoglycemic, Antiprotozoal. The ingredients of these drugs if individually analyzed, are having the

same above said pharmacological activities, and so indicated in *Pama*. Acharya Charaka states that, certain drugs act through *Rasa*; some through *Veerya*; some through their *Gunas*; some through their *Vipaka* and some through their *Prabhava*. Here this drug may act due to their *Tikta Rasa* predominant. They also have *Laghu*, *Sheet Guna* and *Kapha- Pitta Shamaka* properties, which may help to cure the *Pama*. Because of its *Laghu*, *Ruksha Guna* and *Tikta, Katu Rasa* (dominant with *Agni, Vayu* and *Akasha Mahabhuta*) act as *Pitta* and *Kaphashamaka*. *Tikta Rasa* and *Laghu, Ruksha Guna* helps in destruction of *Pitika, Kandu, Daha* by going in to *Sukshama strotsa* of *Twacha*. Thus, the drug i.e. *Durvadya Taila* acts on disease *Pama* and helps to overcome disease process and provides beneficial action. The present work contains clinical study on the efficacy of *Durvadya Taila* in the management of *Pama* in children w.s.r. to scabies.

### CONCLUSION

On the basis of the study, following conclusions can be drawn:

- *Pama* being a *Kshudra Kustha* has *Kaphapitta* dominance with its involvement of *Tridosha* which can be evident by observing its signs and symptoms.
- *Pama* in modern parlance has similarity with the Scabies which is common skin disorder.
- In the present study majority of the children were found in the age group of 5-7 years which reflects the incidence of *Pama* comparatively more in this particular age range. Even though, studies of a large group of children were required for the concrete conclusion.
- The incidence of 63% males, 88% Hindu religion, may not have any reasonable cause for the manifestation of the disease *Pama*.
- Contact history was supporting in many children because *Pama* was said to be *Aoupsargika Roga* hence it is having the nature of spreading from one person to another.
- Poor personal hygiene, poor eating habits, poor living standards, unawareness about health are the important etiological factors for infestation of *Pama*.
- Large numbers of children (65%) were having *Kaphapitta Prakriti* reveals that the children of this *Prakriti* were more prone to the disease *Pama*.
- Involvements of *Kaphaja Lakshanas* were more prevalent in the disease *Pama*.
- Distribution of the patients according to the manifested symptoms showed that *Pidika, Kandu, Strava* etc. were the signs and symptoms of the disease *Pama*, but the *Pidika* and *Kandu* are the more predominant signs of *Pama* as compared to *Srawa*.

- The effect of both therapies on the symptoms of *Pama* was significant. However, the group B has provided comparatively more significant result, it may be because of Gammabenzen hexachloride 1% lotion is the best drug for *Pama* (Scabies).
- Thus it can be concluded that, highly significant results were found in both group A and group B, but better results were found in group B rather than group A. It suggests that external application of Gammabenzen hexachloride 1% lotion is quite suitable therapy than external application of *Durvadya Taila* in *Pama*. As in *Kushta chikitsa* both internal and external therapy gives better results. To have better efficacy treatment of *Pama* should be carried out with both external application of *Durvadya Taila* along with internal administration.

However, this is only preliminary study conducted as a part of educational research program in small number of patients and in a fixed duration of time. Further multi-centered clinical and experimental studies are required with larger samples to establish the efficacy of these drugs on *Pama*.

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**Cite this article as:**

Jyotsna Ahir, Nilesh Deshmukh, Barkade N.Y. A Clinical Study on the Efficacy of Durvadya Taila on Pama w.s.r. to Scabies in Children. AYUSHDHARA, 2019;6 (2): 2151-2162.

**Source of support: Nil, Conflict of interest: None Declared**

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