



Science

EFFICACY STUDY OF PANCHARISHTA CHURNA IN DOOSHIVISHA WITH REFERENCE TO CONTACT DERMATITIS



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Abstract

The amazing journey of Ayurveda from its divine origin to the present day has left us wondering about enormous potential this science possesses. Its successful existence since time immemorial itself proves its scientific approach attributed to its unique principles that have remained unchanged till date. The Ayurveda is categorized into eight divisions, which collectively called Ashtang Ayurveda. Agadtantra is one among those branches.

This dissertation is an attempt to study the efficacy of “Pancharishta churna” in Dooshivish with special reference to contact dermatitis. The main purpose of this work is to help the person who is suffering from Contact dermatitis and wants to cure from the disease.

A Controlled Open prospective trial was carried out on 60 patients of ‘Contact dermatitis’, who were attended OPD & having history of Dooshivish poisoning. 30 patients were treated by Pancharishta churna in study group and 30 patients were treated by Pancharishta churna & Raktamokshana in control group at S.T.R.H. Pune.

Keywords: Pancharishta; Churna; Dooshivisha; Contact Dermatitis.

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1. Introduction

Agadtantra deals with bites and poisoning of various animals like snakes, insects, spider, rat etc. and different type of compound poisons. [1] A definition of poison or toxin is difficult because a nontoxic substance may turn into toxin when administered in large dose or toxic substance can be used as medicine in very minimal quantities. But the Ayurveda give a nice definition of Visha.[2] Whatever substance after entering into the body creates panic in normal function of the basic tissues; destroy the wellbeing and threaten the life is called poison.[3]

The present faulty food habits, polluted air, water, land and increased exposure to electromagnetic radiations, stressful lifestyle, unhealthy travelling habits are favorable condition to appear symptoms of dooshivisha. [4]

In today's era of urbanization and increasing demand of food for survival of human being more and more pesticides and fertilizers are used to yield more production. These synthetic fertilizers dramatically diminish nutrition value of food. So, we end up with food which are lack in viable nutrition and also loaded with residue form of other chemicals. Several medication, preservatives, colorings agent, additives are enter into our body in several way. Though they are in permitted range as per contemporary science but Ayurveda has different opinion regarding such toxins which are enter in our body in low quantity or low potency, they are termed as *dooshivisha*. Because *Agadtantra* explain that *dooshivisha* is a very specialized state of existence of weak poison in the body.

According to modern science *dooshivisha* can be consider as allergic condition of the body. Contact dermatitis or eczema is a polymorphic inflammation of the skin. It occurs at the site of contact with irritating or antigenic substances. In the acute phase there is occurrence of itching erythema, papules and vesicles, whereas in the chronic phase there is dryness, hyperkeratosis and sometimes fissures. Contact dermatitis is characterized by redness, itching, vesiculation and in more chronic form, scaly desquamation, resulting from exposure to environmental substances. [5]

Pancharishta churna is a combination of *nimb*, *trikatu*, *triphala* and *haridra*. In this combination, *Nimb* and *haridra* act as *vishaghna*, immune modulator and *twakprasadak*. *Anulomana* karma of *triphala* helps to excrete poison out of the body. *Agnideepana* karma of *trikatu* helps to modify digestive system. Thus *Pancharishta churna* act as *vishaghna*, *anulomaka*, *agnideepaka* and immune modulator. Due to these excellent properties of *Pancharishta churna* act as *kushthghna* and help to treat contact dermatitis effectively.

This dissertation is an attempt to study the efficacy of "*Pancharishta churna*" in *Dooshivish* with special reference to contact dermatitis. The main purpose of this work is to help the person who is suffering from Contact dermatitis and wants to cure from the disease.

2. Need and Significance of the Study

How the diseases are produced due incompatible factors (like *Viruddhahara*, *asatmya ahara*, *ahita ahara*, fast food, alcohol, antibiotics, steroids, medicines, pesticides, metals etc.) and *Dooshivisha* is the most important question & it is yet to be answered.

This Clinical Study is an attempt to find out the solution for the contact dermatitis caused due to *Dooshivish*. It also finds the contact dermatitis caused by the adverse effect of some Modern medicines which have been used day by day to cure many diseases. In modern science medical treatment for contact dermatitis is not that much satisfactory due to recurrence and fewer options available.

2.1. Aim

- “TO STUDY THE EFFICACY OF PANCHARISHTA CHURNA IN DOOSHIVISH WITH SPECIAL REFERENCE TO CONTACT DERMATITIS.”

2.2. Objectives

- Collection of literary materials on *Dooshivisha* Concept.
- Collection of literary material on *Kushtha*.
- Collection of literary materials on Contact dermatitis.
- To study the standardization of ingredients as well as finished product (*Panacharishta churna*).
- To find out the action of *Pancharishta churna* in *Dooshivish* whether it breaks down the actual pathology or just gives symptomatic relief.
- To specify the role of *Pancharishta churna* in *Dooshivishjanya* contact dermatitis.

3. Material and Method

MATERIAL: “**Pancharishta churna**” [6]

Contains the following ingredients taken in equal quantity in the form of *Churna*.

Nimb: Twak, twaksar, seed, flower, leaves - 1 part.

Trikatu ---- 1 part

Haritaki ---- 1part

Bibhitaki ---- 1 part

Aamlaki ---- 1 part

Haridra ---- 1 part

Preparation of the Medicine

- *Pancharishta churna* is prepared by using standard textual method as per *sharangdhar samhita*.
- *Raktamokshan* will be done as per *Sushruta samhita*

4. Method

4.1. Clinical Study

- **Source of the Data**

Patients attending the O.P.D. of Seth Tarachand Hospital, Tilak Ayurved Mahavidyalaya, Rasta Peth, Pune with the complaints of contact dermatitis.

- **Clinical Trial**

Total 60 patients of contact dermatitis who have been attending OPD & having history of DOOSHIVISH POISONING will be taken in to consideration.

Among them **30 patients** have been treated by **MEDICATION in Group A** and **rest 30 patients** have been treated by **MEDICATION+RAKTAMOKSHAN in Group B** at S.T.R.H. Pune. These patients have been selected for the study irrespective of sex, religion, economical status, education, occupation etc.

- **Inclusion Criteria**

- 1) Patients having classical features of dooshivishajanya^[7] (contact dermatitis) have been taken as a subject to study.
- 2) These criteria have been employed before a desiring patient is included in this study.
- 3) Sex – Male / Female
- 4) Age - 16 to 70 years.
- 5) Patients having sign and symptoms like-
 - *Kandu*
 - *Srava*
 - *Pidaka*
 - *Vedana*
 - *Daha*
 - *Twakvaivarnyata*

- **Exclusion criteria**

- 1) Patients below age 16years and above 70 years
- 2) Patients associated with the major illnesses. HIV infection, hepatitis B infection and other blood disorder such as hemophilia are excluded from the study.
- 3) Pregnant woman.
- 4) Complication like deformities.

- **Withdrawal criteria**

- Occurrence of serious adverse events.
- Patient is not willing to continue the trial or to follow the assessment schedule.
- Investigator feels that protocol has been violated or patient has become in-cooperated.
- Patients absent for follow up for 2days are considered as dropped out from this project.

- **Mode of administration of the drug**

The randomly selected patients were allocated into the following two groups and managed accordingly Study group & Control group

A. Study group (*Pancharishta churna*)

- A) Form - *Churna*
- B) Dosage - 1gm twice a days
- C) *Kala* - after meal
- D) *Anupan* - lukewarm water
- E) Route of Administration - Oral
- F) Follow up - 7th, 14th, and days28th

B. Control group (*Pancharishta churna +Raktamokshan*)

- **Form-** *Abhayantara sevan* of *Pancharishta churna +Raktamokshan* by application of leech.
- **Dosage-** 1gm twice a day and *Raktamokshan* according to *samyka lakshana*.
- **Kala-** *Pancharishta churna* give after meal and *Raktamokashan* within interval of 7 days
- **Anupan-** lukewarm water for *abhyantar sevan* of churn

- **Route of Administration-** *Churna* by Oral route and *Raktamokshan* by application of leech
- **Follow up-** 7th, 14th ,and 28th day

- **Criteria for Assessment**

Clinical – Itching (*kandu*), erythema (*vaivarnyata*), vesicles (*pidaka*), oozing (*srava*), *Daha*.

Laboratory – Blood investigation as per case proforma.

Scored score is used for assessment of clinical symptoms Using SCORAD

SCORAD = Scoring Atopic Dermatitis, clinical tool for assessing the severity of atopic dermatitis as objectively as possible

5. Observations and Results

Both subjective and objective parameters were considered for the assessment of the efficacy of *Pancharishta churna* in *Dooshivisha* with special reference to Contact dermatitis.

The responses obtained through clinical investigations were recorded and an honest effort was made to interpret the findings. A total of sixty patients participated in the clinical trial. The different data obtained from the study were:

Section A: Demographic data

Section B: Distribution of patients according to their personal history

Section C: Distribution of patient according to Disease

Section D: Data related to treatment response

Section A: Demographic data:

Table 1: Distribution of the patients according to Age

Age	Study		Control		Total	
	count	Percentage	count	percentage	Count	percentage
17-20	04	13.33	5	16.67	9	15
21 - 30	5	16.67	5	16.67	10	16.67
31 - 40	11	36.67	10	33.33	21	35
41 - 50	6	20	4	13.33	10	16.67
51 - 60	2	6.67	2	6.67	4	6.67
61 - 70	1	3.33	2	6.67	3	5

Table 2: Distribution of patients according to Gender

Sex	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Male	20	66.67	21	70	41	68.33
Female	10	33.33	9	30	19	31.67

Table 3: Distribution of Patients according to Religion

Religion	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Hindu	28	93.3	26	86.7	54	90.00
Muslim	02	6.7	04	13.3	06	10.00

Table 4: Distribution of patients according to Domicile

Domicile	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Urban	25	83.33	21	70	46	76.67
Rural	5	16.67	9	30	14	23.33

Section B: Distribution of patients according to their personal history

Table 5: Distribution of patients according to Diet

Personal History	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Vegetarian	11	36.67	9	30	20	33.33
Mixed	19	63.33	21	70	40	66.67

Table 6: Distribution of patients according to Occupation

Occupation	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Sedentary	10	33.33	9	30	19	31.67
Moderate	7	23.33	8	26.67	15	25
Heavy	13	43.33	13	43.33	26	43.33

Table 7: Distribution of patients according to Economical status

Religion	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Poor	8	26.67	6	20	14	23.33
Middle	21	70	13	43.33	34	56.67
High	1	3.33	1	3.33	2	3.33

Table 8: Distribution of patients according to Bowel movements

Bowel movements	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Regular	13	43.33	9	30	22	36.67
Constipated	17	56.67	21	70	38	63.33

Table 9: Distribution of patients according to Prakruti

Prakruti	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Vatapitta	6	20	8	26.67	14	23.33
Vatakapha	15	50	14	46.67	29	48.33
KaphaPitta	9	30	8	26.67	17	28.33

Table 10: Distribution of patients according to Mental Stress

Mental Stress	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Present	21	70	19	63.33	40	66.67
Absent	9	30	11	36.67	20	33.33

Table 11: Distribution of patients according to Addictions

Addictions	Study		Control		Total	
	Count	%	Count	%	Count	Percentage
No addiction	4	13.33	5	16.67	9	15
Tea/Coffee	10	33.33	9	30	19	31.67
Alcohol	8	26.67	7	23.33	15	25
Smoking	3	10	4	13.33	7	11.67
Smoking + Alcohol	3	10	4	13.33	7	11.67
Other	2	6.67	1	3.33	3	5

Section C – Distribution of patient according to Disease

Table 12: Distribution of patients according to Duration of disease

Duration of disease	Study		Control		Total	
	Count	Percentage	Count	Percentage	Count	Percentage
Up to 1 year	18	60	14	46.66667	32	53.33333
Above 1 year	12	40	16	53.33333	18	30

Table 13: Distribution of patients according to H/o Dooshivisha

History of Dooshivisha	Study		Control		Total	
	Count	%	Count	%	Count	%
History Of Jangama visha	3	10	1	3.33	4	6.67
History Of Sthavara visha	2	6.67	1	3.33	3	5
History Of Viruddhahara	13	43.33	19	63.33	32	53.33
History Of Allopathic drugs	10	33.33	9	30	19	31.67

Table 14: Distribution of patients according to Aggravating factors

Aggravating Factors	Study		Control		Total	
	Count	%	Count	%	Count	%
Cold Season	4	13.33	3	10	7	11.67
Non-veg food	10	33.33	13	43.33	23	38.33
Sun exposure	3	10	4	13.33	7	11.67
Sweating	5	16.67	3	10	8	13.33
Occupation	8	26.67	7	23.33	15	25

Section D – Data related to treatment response

T-Test: Two-Sample Assuming Equal Variances

Table 15: Effectiveness of treatment on SCORAD Score difference between two groups

Group	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Study	25.13		37.15		30		0.211421321
Control	27.23		45.70		30		

Table 16: Effectiveness on SCORAD Score between two groups according to Age

Age	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
17-20	39	29.2	102	31.7	4	5	0.105534414
21-30	20	24.2	22	27.2	5	5	0.21739574
31-40	28.67	28.83	35.15	43.79	12	12	0.948775274
41-50	25.17	20.25	23.37	58.92	6	4	0.244090401
51-60	26.5	35	0.5	18	2	2	0.107731402
61-70	25	26.5	#DIV/0!	0.5	1	2	0.333333333

Table 17: Effectiveness on SCORAD Score between two groups according to Sex

Sex	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Male	25.3	27.57	44.85	45.46	20	21	0.285990571
Female	24.8	26.44	24.84	51.03	10	9	0.564872105

Table 18: Effectiveness on SCORAD Score between two groups according to Religion

Religion	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Hindu	25.43	27.27	37.37	50.36	28	26	0.310878827
Muslim	21	27	32	22	2	4	0.234181336

Table 19: Effectiveness on SCORAD Score between two groups according to Domicile

Domicile	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Urban	20.4	30.22	24.8	29.19	5	9	0.005843534
Rural	26.08	25.95	35.16	48.85	25	21	0.946868431

Table 20: Effectiveness on SCORAD Score between two groups according to Occupation

Occupation	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Sedentary	21.7	28.22	37.34	22.44	10	9	0.019572229
Moderate	26.57	26.87	54.29	71.55	7	8	0.942481053
Heavy	27	26.77	19.833	52.70	13	13	0.922980253

Table 21: Effectiveness on SCORAD Score between two groups according to Income

Income	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Poor	29.87	22.17	26.70	38.57	8	6	0.026064314
Middle High	23.71	28.30	30.11	41.77	21	23	0.015357937
	Not comparable						

Table 22: Effectiveness on SCORAD Score between two groups according to Diet

Diet	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Vegetarian	24.54	26.44	27.47	62.28	11	9	0.527226847
Mixed	25.47	26.94	44.26	43.35	19	18	0.503801708

Table 23: Effectiveness on SCORAD Score between two groups according to Mental stress

Mental stress	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Present	25.19	26.85	24.26	50.13	21	20	0.38704677
Absent	25	28	74	40.44	9	10	0.39605499

Table 24: Effectiveness on SCORAD Score between two groups according to Prakruti

Prakruti	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
VataKapha	23.5	25.75	15.9	77.36	6	8	0.573205483
VataPitta	27	26.58	40.57	46.88	15	14	0.862664006
KaphaPitta	23.11	29.87	40.61	13.55	9	8	0.018880974

Table 25: Effectiveness on SCORAD Score between two groups according to satva

Bowel movements	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Madya	26.81	27.57	20.16	45.46	16	21	0.699844138
Avar	23.22	26.44	52.18	51.03	14	9	0.30518002

Table 26: Effectiveness on SCORAD Score between two groups according to Bowel movements

Bowel movements	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Regular	25.81	27.44	65.76	66.78	11	9	0.66187379
Constipated	24.73	27.14	22.87	39.53	19	21	0.184692312

Table 27: Effectiveness on SCORAD Score between two groups according to Addiction

Addiction	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
No addiction	12	27.5	#DIV/0!	84.5	1	2	0.39991722
Tea/coffee	27.2	25.9	57.51	60.32	10	10	0.70933152
Alcohol	24.87	27.71	16.41	58.90	8	7	0.37733706
Smoking	22.67	23.5	0.33	27.67	3	4	0.8003293
Smoking + Alcohol	27	31.4	17.2	18.8	6	5	0.12011978
Other	15	29	#DIV/0!	18	1	2	0.22625107

Table 28: Effectiveness on SCORAD Score between two groups according to Aggravating Factor

Aggravating Factor	Mean of SCORAD diff.		Variance		Observations		P value P(T<=t) two-tail
	Study	Control	Study	Control	Study	Control	
Cold Season	30.5	30.33	55	32.33	4	3	0.97556006
Non-veg food	25	26.67	20.67	48.56	10	13	0.51331007
Sun exposure	21	30	16.67	16.67	4	4	0.02064552
Sweating	25.4	27	67.8	13	5	3	0.7661086
Occupation	24.43	25.43	36.28	85.952	7	7	0.81491005

Table 29: Effectiveness on Kandu between two groups

Group	BT			AT			Mean Diff.	Paired't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	2.33	0.55	30	0.6	0.56	1.73	18.23	p <0.001
Control	30	2.3	0.59	30	0.43	0.50	1.86	23.55	p <0.001

The mean scores of **Kandu** before treatment were 2.33 and 2.3 for the study and control groups respectively. After treatment, it decreased to 0.60 and 0.43 for study and control group respectively. The mean difference noticed was 1.73 and 1.86 respectively. The paired't' value 18.22 and 23.54 respectively, shows that this mean difference is very highly significant at p<0.001 for study and control group.

Table 30: Effectiveness on Vedana between two groups

Group	BT			AT			Mean Diff.	Paired't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	1.8	1.8	30	0.43	0.50	1.37	13.47	p <0.001
Control	30	1.43	0.50	30	0.3	0.47	1.13	17.95	p <0.001

The mean scores of **Vedana** before treatment were 1.88 and 1.43 for the study and control groups respectively. After treatment, it decreased to 0.43 and 0.3 for study and control group respectively. The mean difference noticed was 1.37 and 1.13 respectively. The paired't' value 13.47 and 17.95 respectively, shows that this mean difference is very highly significant at p<0.001 for study and control group.

Table 31: Effectiveness on Shoth between two groups

Group	BT			AT			Mean Diff.	Paired't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	1.77	0.63	30	0.5	0.57	1.27	15.42	p <0.001
Control	30	1.77	0.50	30	0.4	0.50	1.37	15.27	p <0.001

The mean scores of **Shoth** before treatment were 1.77 and 1.77 for the study and control groups respectively. After treatment, it decreased to 0.5 and 0.4 for study and control group respectively. The mean difference noticed was 1.27 and 1.37 respectively. The paired't' value 15.42 and 15.27 respectively, shows that this mean difference is very highly significant at p <0.001 for study and control group.

Table 32: Effectiveness on Pidaka between two groups

Group	BT			AT			Mean Diff.	Paired't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	1.8	0.76	30	0.57	0.50	1.23	13.40	p <0.001
Control	30	1.43	0.63	30	0.33	0.48	1.1	12.53	p <0.001

The mean scores of **Pidaka** before treatment were 1.8 and 1.43 for the study and control groups respectively. After treatment, it decreased to 0.57 and 0.33 for study and control group respectively. The mean difference noticed was 1.23 and 1.1 respectively. The paired't' value 13.40 and 12.53 respectively shows that this mean difference is significant at p <0.001 for study and control group.

Table 33: Effectiveness on Srava between two groups

Group	BT			AT			Mean Diff.	Paired't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	1.8	0.89	30	0.57	0.63	1.23	11.89	p <0.001
Control	30	1.53	0.50	30	0.4	0.50	1.13	12.23	p <0.001

The mean scores of **Srava** before treatment were 1.8 and 1.53 for the study and control groups respectively. After treatment, it decreased to 0.57 and 0.4 for study and control group respectively. The mean difference noticed was 1.23 and 1.13 respectively. The paired't' value 11.89 and 12.23 respectively, shows that this mean difference is significant at p <0.001 for both study and control group.

Table 34: Effectiveness on Daha between two groups

Group	BT			AT			Mean Diff.	Paired't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	1.7	0.70	30	0.53	0.51	1.17	16.86	p <0.001
Control	30	1.27	0.52	30	0.27	0.45	1	20.86	p <0.001

The mean scores of **Daha** before treatment were 1.7 and 1.27 for the study and control groups respectively. After treatment, it decreased to 0.53 and 0.27 for study and control group respectively. The mean difference noticed was 1.17 and 1.0 respectively. The paired't' value

16.86 and 20.86 respectively shows that this mean difference is significant at $p < 0.001$ for both study and control group.

Table 35: Effectiveness on Twakvaivarnya between two groups

Group	BT			AT			Mean Diff.	Paired 't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	2.1	0.76	30	0.8	0.61	1.3	15.28	$p < 0.001$
Control	30	1.83	0.70	30	0.63	0.49	1.2	16.15	$p < 0.001$

The mean scores of **Twakvaivarnya** before treatment were 2.1 and 1.83 for the study and control groups respectively. After treatment, it decreased to 0.8 and 0.63 for study and control group respectively. The mean difference noticed was 1.3 and 1.2 respectively. The paired 't' value 15.28 and 16.15 respectively shows that this mean difference is significant at $p < 0.001$ for both study and control group.

Table 36: Effectiveness on Twakjadyata between two groups

Group	BT			AT			Mean Diff.	Paired 't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	2.13	0.68	30	0.9	0.48	1.23	15.70	$p < 0.001$
Control	30	1.77	0.57	30	0.66	0.48	1.1	19.75	$p < 0.001$

The mean scores of **Twakjadyata** before treatment were 2.53 and 1.77 for the study and control groups respectively. After treatment, it decreased to 0.90 and 0.66 for study and control group respectively. The mean difference noticed was 1.23 and 1.1 respectively. The paired 't' value 15.70 and 19.75 respectively shows that this mean difference is significant at $p < 0.001$ for both study and control group.

Table 37: Effectiveness on Eosinophil count between two groups

Group	BT			AT			Mean Diff.	Paired 't'	P
	N	Mean	SD	N	Mean	SD			
Study	30	15.4	3.52	30	9.7	2.69	5.7	-18.10	$p < 0.001$
Control	30	15.73	3.04	30	9.63	2.30	6.1	23.09	$p < 0.001$

The mean scores of **Eosinophil count** before treatment were 9.7 and 15.73 for the study and control groups respectively. After treatment, it decreased to 15.4 and 9.63 for study and control group respectively. The mean difference noticed was 5.7 and 6.1 respectively. The paired 't' value -18.10 and 23.09 respectively shows that this mean difference is significant at $p < 0.001$ for both study and control group.

6. Discussion

The retrospective analysis of the resource materials reveals that specific references about Latent Poison (*Dooshivisha*) are not available in Vedic and allied literature. In classical Ayurvedic literatures we won't get much detailed explanation about the concept of Latent Poison (*Dooshivisha*). Only in *Sushruta Samhita Kalpasthana* 2nd chapter we get explanation about Latent Poison (*Dooshivisha*), though they are not sufficient to understand the concepts of Latent

Poison (*Dooshivisha*) that is regarding etiology, pathogenesis, clinical outcome and the management of Latent Poison (*Dooshivisha*).^[8]

Any poison can get converted to Latent Poison (*Dooshivisha*) when they lose their characteristic ten qualities and thereby potency. Thus it is clear that the concept of Latent Poison (*Dooshivisha*) is based on the potency of the poison. No author has classified the Latent Poison (*Dooshivisha*) as a separate type of poison. In *Dalhana's* commentary it is mentioned as '*manda shaktikam Dooshivishatam prapnoti*', (weak poisons become transformed to *Dooshivisha*), which very well explains about the potency of the poison.

Latent Poison (*Dooshivisha*) is having a very extensive range of effects on body. Symptoms of concerned *Dhatu dushti* is seen where the Latent Poison (*Dooshivisha*) is deposited, as if Latent Poison (*Dooshivisha*) is deposited in *Rasa dhatu* then *Rasa dhatudushti lakshanas* are seen, if in *Raktadhatu*, *Raktadhatu dushti lakshanas* can be seen and so on. To see *Kushtha* as a clinical entity latent Poison (*Dooshivisha*) should deposited in *Rakta dhatu* and in *Twak* can cause *Kushtha* (skin disorder) and its specific types.

While the effects of industrialization and commercialization are widely and rapidly spreading in the society, the chances of contact with toxins are increase day by day. Ayurvedic texts describes the possibilities of contacting poison from the objects used for massage, cosmetics, footwear, dress, bed, armors etc. and also prescribes specific formulations in each of such situations. These drugs may be tried in the common allergies caused by such products in the present era.

While observing the symptoms of this contact dermatitis, whatever may be the mode of poisoning, all causes localized symptoms pertaining to the skin itself, which may result immediate or delayed (latent) effect, it depends on the potency of the toxin. Even today we can notice the same effects when we use objects which contain chemicals as toxins.

The chemical substances which are consumed therapeutically for longer period of any systemic disorder, they show adverse reactions on skin as a target organ and also which are coming in contact with the skin as a toxin will definitely shows reactions to the skin itself.

Our classics have not mentioned about the particular nature of skin disorder caused by *Dooshivisha* (Latent poison). It is highly impossible to correlate the exact skin disorder as mentioned in Ayurveda with Contact dermatitis. As *Charaka* says, skin disorders always caused by three humors (*Doshas*) and they are innumerable, based on the symptoms pertaining to particular humor (*Dosha*) we should plan the treatment.

The present study, *Pancharishta churna* was selected by taking in consideration that, this drug is having *vishghna*, *vranaropan*, *shothhar*, *vedanashamak* and *yakrututejak* properties. Because of these properties this drug acts against *dooshivishajanya* contact dermatitis. Also many modern research papers have also supported that, contains of this drug are safest. By considering all above points, this drug was selected for the treatment of Contact dermatitis.

The literature review consists of baseline data of the disease from Ayurveda and Modern texts, journals, earlier research works and other online searches.

A Controlled Open prospective trial was carried out on 60 patients of CONTACT DERMATITIS who were attended OPD & having history of DOOSHIVISH POISONING. 30 patients were treated by MEDICATION in Group A and 30 patients were treated by MEDICATION+ RAKTAMOKSHANA in Group B at S.T.R.H.Pune.

Both subjective and objective parameters were considered for the assessment of response to the treatment. The observations made before and after treatment were considered for analysis. Statistical analysis was carried out using paired 't' test. ^[9]

The demographic data showed that majority of the patients were aged between 31-50 yrs of about 51.67%. This is may be due to chronic nature of the disease and also indicates the incidence of *Dooshivisha* is more in this age group. Male predominance was seen about 66.67% in study group and 70% in control group indicates that males are more prone to suffer from *Dooshivisha* poisoning because of more exposure to the secondary aggravating factors. Religion wise distribution shows that most of the patients were Hindus; this may be because of small sample size. The Economic status wise distribution shows that majority of patients from poor or lower middle class. This may be because of poor living standards & poor hygienic conditions.

Based on the personal history – 63.33% were non- vegetarians in the study group and 70% were in the control group, suggests that fish, egg, curd and meat should be considered as *Dooshivisha* factors, as they are mentioned in the classics as *ahita* and their daily usage is contraindicated. Such food will aggravate *kapha*, *pittadoshas* and responsible factors for *srotorodha*.

56.67% were constipated in study group and 70% were constipated in control group; this suggests that improper expulsion of mala is also one of the aggravating factor of *Dooshivisha* due to accumulation of endotoxins in the body.

70% had mental stress in the study group and 63.33% in the control group which acts as an aggravating factor. 48.33% of the patients having *vatakaphaprakruti* which indicates the *doshic* predominance of *vatakapha* in *Dooshivishjanya* contact dermatitis.

Whenever patients were asked about dietary aggravating factors, it was found that in most cases in Vegetarians patient could not link any particular dietary factor for aggravation of the disease whereas in Non-vegetarians 38.33% of patients linked that symptoms aggravates with intake of non-veg. food.

43.33% were in occupations requiring heavy work in the study group and 43.33 in the control group. Painters, Mechanics, Farmers, Factory workers, Building workers were consider as heavy worker. They are continuous contact with cement or paint or metals or chemicals according to their occupation. Those occupational allergens were increases the prevalence of Contact dermatitis.

Alcohol consumption was found in 26.67% patients in the study group and 23.33% in the control group. This may be an added toxic effect for the accumulation in the body.

Effect of therapy on chief complaints of contact dermatitis in both groups

- **Effect on *Kandu*:** *Kandu* mean score was reduced by 2.33 to 0.60 showing 74.25% relief in Study group and from 2.3 to 0.43 showing 81.30% relief in Control group. Both are individually significant $P < 0.001$. Therefore *Raktamokshana* is more effective on *kandu* in contact dermatitis.
- **Effect on *Vedana*:** *Vedana* mean score was reduced by 1.88 to 0.43 showing 77.13% relief in Study group and from 1.43 to 0.3 showing 79.02% in Control group and both are statistically significant ($P < 0.001$). Therefore *Raktamokashan* is more effective on *vedana* in contact dermatitis.
- **Effect on *Daha*:** *Daha* mean score was reduced by 1.7 to 0.53 showing 68.82353% relief in Study group and from 1.27 to 0.27 showing 78.74016% in Control group and both are statistically significant ($P < 0.001$). Therefore *Raktamokashan* is more effective on *Daha* in contact dermatitis.
- **Effect on *Srava*:** *Srava* mean score was reduced from 1.8 to 0.57 showing 68.33% relief in Study group and from 1.53 to 0.4 showing 73.86% relief in Control group, both are statistically highly significant $p < 0.001$. *Pancharishta churna* is having *Pippali* & *Maricha* as ingredients which are *kledahara* in nature which eliminates the *utkleshitadosha* produce by *viruddhara*. *Haridra* is *varshodhak* and *vishghna*. This may be the reason that Study drug + *Raktamokshan* have been given better result.
- **Effect on *Pidaka*:** *Pidaka* mean score was reduced from 1.8 to 0.57 showing 68.33% relief in Study group and from 1.43 to 0.33 showing 76.92% relief in Control group, both are statistically highly significant $p < 0.001$. It shows that *Pancharishta churna* is highly effective in *Pidaka* when it is used along with *Raktamokshana*.
- **Effect on *Twakvaivarnya*:** *Twakvaivarnya* mean score was reduced from 2.1 to 0.8 showing 61.90% relief in Study group and from 1.83 to 0.63 showing 65.57% relief in Control group, both are statistically highly significant $p < 0.001$. It shows that *Pancharishta churna* is highly effective in *Twakvaivarnya* when it is used along with *Raktamokshana*.
- **Effect on *Twakjadyata*:** *Twakjadyata* mean score was reduced from 2.53 to 0.90 showing 64.42% relief in Study group and from 1.77 to 0.66 showing 62.71% relief in Control group, both are statistically highly significant $p < 0.001$. It shows that *Pancharishta churna* is highly effective in *Twakjadyata*.

Considering the SCORAD score assessment, both groups showed significant improvements.

- 1) People in the age group 31-50 years were more prone to Contact dermatitis.
- 2) The present study shows that Contact dermatitis is predominant in males because of more exposure to the secondary aggravating factors.
- 3) It is concluded that, people belonging to middle and lower economical strata of society were more prone to Contact dermatitis. This may be because of poor living standards & poor hygienic conditions.
- 4) Mental stress plays an important role in the *samprapti* of *Dooshivishjanya* Contact dermatitis.
- 5) People having *vatakapha prakruti* were more prone to Contact dermatitis.
- 6) Improper expulsion of mala is also one of the aggravating factors of *Dooshivisha*.

- 7) In Non-vegetarians 55% of patients linked that symptoms of contact dermatitis aggravates with intake of non-veg. food. This suggests that consumption of Non-veg. may act as a triggering factor for *Dooshivishjanya* Contact dermatitis.
- 8) Oral medication of *pancharishta churna* in *Dooshivishjanya* Contact dermatitis was found to be statistically highly significant even if it is used singly.
- 9) Effect of *Pancharishta churna* on symptoms like *Pidaka, Srava, Twakvaivarnya & Twakjadyata* is highly significant when it is used along with *Raktamokshana*. Whereas *Raktamokshan* is highly significant in *daha, vedana* and *kandu*.

7. Limitations

- 1) Sample size was very small.
- 2) Period of the study was of short duration.
- 3) Follow up was done only for twenty eight days.

8. Recommendations

- 1) The study in larger samples and longer follow up at least for one year is required.
- 2) Concept of *Dooshivisha* should be understand properly and attempt to be made in the treatment of various disorders.
- 3) Cumulative toxicity study of particular substance is much valuable.

9. Conclusion

From this particular study some conclusions are being drawn on the basis of observations made, results achieved and by thorough discussion.

- *Raktamokshan* in *Dooshivishjanya* contact dermatitis was found to be statistically highly significant for *Kandu, vedana* and *daha* even if it is used singly.
- Effect of *Pancharishta churna* on symptoms like *Pidaka, Srava, Twakvaivarnya* and *Twakjadyata* is highly significant when it is used along with *Raktamokshan*.
- *Raktamokshan* helps in detoxifying the blood by its *Shodhana Karma*.
- Though *Pancharishta churna* is effective in *Dooshivishjanya* contact dermatitis its efficacy is significantly enhanced by *Raktamokshan*.
- This study shows that *Pancharishta churna* highly effective in contact dermatitis on symptoms like *pidaka, srava, twakvaivarnya* and *twakjadyata*. *Raktamokshana* is highly effective in contact dermatitis on symptoms like *Kandu, daha, vedana*.

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