

ORIGINAL ARTICLE

Comparative Efficacy of *Pracchanna Karma* (bloodletting therapy) followed by *Arka Taila* (herbal medicated oil) Application versus *Arka Taila* (herbal medicated oil) Application alone in the Management of *Vicharchika* (atopic dermatitis): A Randomized Controlled Trial

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ABSTRACT

Vicharchika, an Ayurvedic disorder clinically resembling atopic dermatitis, is described as a *Raktapradoshaja Vikara* arising from vitiated *Rakta* and *Tridosha* imbalance. Although *Pracchanna Karma* (bloodletting) followed by *Arka Taila* application is a classical management protocol, its comparative efficacy against topical therapy alone has not been systematically studied. To evaluate and compare the clinical efficacy of (1) *Pracchanna Karma* followed by *Arka Taila* application versus (2) *Arka Taila* application alone in the management of *Vicharchika*. A randomized, parallel-group, open-label RCT was conducted on 60 patients diagnosed with *Vicharchika* (atopic dermatitis) and allocated into two groups: Group A (*Pracchanna Karma* + *Arka Taila*, n=30) and Group B (*Arka Taila* alone, n=30). The intervention period was 2 months, including a maximum of 4 sittings of bloodletting in Group A, followed by topical oil application, with a 1-month post-procedure follow-up. Primary outcomes included percentage reduction in *Kandu* (itching), *Daha* (burning), *Vaivarnya* (discoloration), lesion area, and *SCORAD* index. Data were analyzed statistically. Group A showed significantly greater improvement than Group B: *Kandu* 96.4% vs. 82.4%, *Daha* 100% vs. 96.5%, *Vaivarnya* 84.2% vs. 61.6%, *SCORAD* reduction 62.49% vs. 53.76%, and lesion area reduction 46.5% vs. 28.8%. No adverse effects or procedural complications were reported in either group. *Pracchanna Karma* followed by *Arka Taila* application is significantly more effective than topical therapy alone in managing *Vicharchika* (atopic dermatitis), demonstrating excellent safety and therapeutic benefit. The findings support *Pracchanna Karma* as a safe, cost-effective, and feasible day-care procedure that improves dermatological outcomes and patient quality of life, reinforcing its clinical applicability in routine Ayurvedic practice.

Keywords: *Vicharchika* (atopic dermatitis), *Pracchanna Karma* (bloodletting therapy), *Raktamokshan* (bloodletting therapy), *Arka taila* (herbal medicated oil), *Ayurveda*, skin disease.

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INTRODUCTION

The skin, the largest organ of the human body, serves as a protective barrier against mechanical, chemical, and biological hazards.[1] As lifestyles and environmental factors evolve in the 21st century, skin diseases have become increasingly prevalent, particularly among adults. Conditions like atopic dermatitis, which accounts for about 30% of skin disorders, cause significant physical, emotional, and socioeconomic challenges for affected individuals. [2] In *Ayurveda*, skin diseases are classified under the term *Kushtha* (skin disease), with *Vicharchika* (atopic dermatitis) being a notable subtype. *Vicharchika* (atopic dermatitis) often presents treatment challenges and is prone to relapses. *Ayurvedic* texts identify the *tridoshic* origins of these conditions, suggesting that imbalances in *Vata*, *Pitta*, and *Kapha doshas* contribute to their manifestation. *Ayurvedic* treatment approaches emphasize *Shodhana* (bio-purification), *Shamana* (pacification), and *Nidana Parivarjanam* (avoidance of causative factors).

Bloodletting techniques, such as *Pracchanna* (bloodletting therapy), are utilized for *Kushta rog* (skin disease) [11], highlighting a comprehensive strategy that addresses both symptoms and underlying causes. The use of *Arka Taila*, as described in the *Sharangdhara Samhita*, is specifically recommended for *Vicharchika* (atopic dermatitis), showcasing *Ayurveda*'s holistic methodology.[8] In modern dermatology *Vicharchika* (atopic dermatitis) closely related with atopic dermatitis symptoms while modern dermatology has advanced significantly with the development of powerful medications like corticosteroids, these treatments often come with undesirable side effects, including skin thinning, acne, and pigmentation changes.[3] This raises concerns about the long-term management of skin conditions. Given these challenges, there is a growing interest in *Ayurvedic* approaches as safe alternatives for treating skin diseases. By proper implementation of principle of treatment comprehensive management plan can be developed. This approach can provide symptom relief while addressing the root causes of skin disorders, ultimately improving the quality of life for individuals suffering from these conditions. The exploration of such strategies based on principles of *Ayurveda* is essential in advancing dermatological care and enhancing patient outcomes.

Objectives and Hypotheses

Primary Objective: Compare the effectiveness of *Pracchanna Karma* (bloodletting therapy) + *Arka Taila* (herbal medicated oil) versus *Arka Taila* (herbal medicated oil) alone in reducing *Vicharchika* (atopic dermatitis) symptoms.

Hypotheses:

Null Hypothesis (H_0): No significant difference between the two treatments.

Alternative Hypothesis (H_1): *Pracchanna Karma* (bloodletting therapy) + *Arka Taila* is more effective than *Arka Taila* (herbal medicated oil) alone.

MATERIAL AND METHODS

Trial Design: Parallel-group, open-label randomized controlled clinical trial with a 1:1 allocation ratio.

Changes to Methods After Trial Commencement: - No protocol deviations or changes after trial commencement.

Participants: Eligibility criteria

Institutional Ethical Committee (IEC) no.: PU/PIA/IECHR/2019/169 **dated** 16/10/2019

Trial Registration: CTRI/2020/01/022817 **dated** 16/01/2020

Study population:

This study was conducted on patients with *Vicharchika* (atopic dermatitis). The patients were selected from OPD and IPD of Parul Institute of *Ayurveda* Hospital, Limda; irrespective of gender and socioeconomic status of patients.

CRITERIA FOR DIAGNOSIS:

Diagnosis was made on the basis of *Lakshanas* (sign and symptoms) of *Vicharchika* (atopic dermatitis), [10]

Kandu (itching)

Pidaka (boil)

Syavata (blackish)

Rukshata (dryness)

Daha (burning) and *Ruja* (pain)

INVESTIGATIONS

CBC, RBS, BT CT, HIV, HBsAG, VDRL were done before treatment.

Inclusion criteria

Patients aged between 20 yrs and 60yrs.

Patients fulfilling the diagnostic criteria like *Kandu* (itching), *Pidaka* (boil), *Syavata* (blackish), *Rukshata* (dryness)

Daha (burning) and *Ruja* (pain) etc.

Lesion of size between 25 cm² -100 cm²

In case of multiple lesions, lesion of index size was selected

Lesions over hand, inside of elbows, back of knees and buttocks were included.

Exclusion criteria

Systemic diseases like cardiac illness, diabetes mellitus and anemia.

Skin disorders other than *Vicharchika* (atopic dermatitis)

Patients on anticoagulant and antiplatelet drugs.

Patients with bleeding disorders.

Patients with HIV, HBsAG, VDRL were excluded.

Patients contraindicated for *Raktamokshan*(bloodletting therapy).

Lesions on eyes, axilla and face.

Study Setting and Locations: Parul *Ayurveda* Hospital, Limbda, Vaghodia, Vadodara, State of Gujarat, India.

INTERVENTION

For group A

POORVA KARMA (Pre-operative):

Procedure was explained to the patient and consent was taken. Proper position to the patient suitable for *Pracchana karma*(bloodletting therapy) was given. The site of patch was cleaned with distilled water.

PRADHAN KARMA (Operative):

Draping of atopic dermatitis lesion was done.11no. Surgical blade was held in right hand with thumb and index finger and hand was steadied by other three fingers. Gentle multiple superficial incisions were taken according to requirement i.e *na ati uttana* (not too superficial), *na ati Gambhir* (not too deep).No. of incisions were decided as per requirement. Bleeding was wiped with sterilize gauge piece after 2 minutes of *Prachhanna Karma*(bloodletting therapy).

PASCHAT KARMA (Pos. Operative):

When oozing of blood stops, *Arka Taila* (herbal medicated oil) was applied and dressing done. Patients were observed for systemic and local reactions after applying *Arka Taila* (herbal medicated oil) for 30 minutes.

For group B

Study was explained to the patient and informed written consent was taken. *Arka Taila*(herbal medicated oil) dispensed to the patient.

Patient was advised to apply *Arka Taila*(herbal medicated oil) twice a day for 28 days

ASSESSMENT CRITERIA:

The assessment was done on 0, 7th,15th and 28th day, the progress was noticed in special prepared Case Performa as per assessment parameters.

Subjective criteria

Kandu (Itching):-

0- No *Kandu*

1- Mild or occasional *Kandu* (weekly 1-2 episodes)

2- *Kandu* on and off (daily 2-3 episodes)

3- continuous *Kandu* without disturbed sleep

4- continuous *Kandu* with disturbed sleep

Daha (Burning sensation):-

No *Daha*

1- Sometimes *Daha*

2- Often *Daha*

3- Continuous *Daha* without disturbed sleep

4- Continuous *Daha* with disturbed sleep

Ruja (Pain)

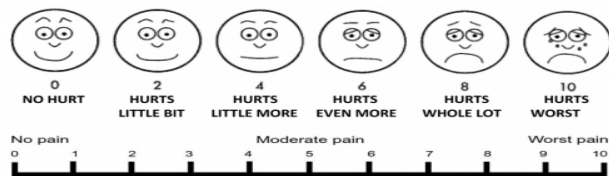


Figure 1 Visual Analogue Scale

Vaivarnya (Discoloration)

Nearly normal skin

1- Brownish discoloration

2- Brownish black discoloration

3- Blackish discoloration

4- Whitish discoloration

Objective criteria

The objective parameters were assessed by SCORAD objective index consist of

A=extent of atopic dermatitis according to rule of nine.

B= intensity items (Table 1)
Area of lesion- 25cm²– 100cm²

Follow-up: -

follow up visit after one month of last sitting of *Pracchanna Karma*(bloodletting therapy).

Statistical analysis

Statistical test was done by using Data Analysis in SPSS (V23) Friedman test was done for subjective parameters.

Post Hoc analysis with Wilcoxon signed rank test with Bonferroni correction applied.

Mann-Whitney U test was done to analyze the mean between two groups

ANOVA test was done for SCORAD and AREA OF LESION.

RESULTS

Observation on Demographics & Patient Characteristics:

Majority of patients (56.7% in Group A, 36.7% in Group B) were 31-40 years old, with males dominating both groups (83.3% in Group A, 66.7% in Group B). Most patients (80% in Group A, 93.3% in Group B) were Hindu.

The highest occupational category was private jobs (21.6%), followed by farmers and students (18.3% each).

36.6% were graduates, while 6.6% were uneducated.

Disease Characteristics

83.3% of patients had *Vicharchika* (atopic dermatitis) for 0-2 years, and all had a gradual onset. The most common symptoms were itching (100%), dryness (98.3%), skin discoloration (100%), and lichenification (96.7%). Extreme itching was reported in 73.3% of Group A and 76.7% of Group B.

Lifestyle & Dietary Factors

56.7% followed irregular eating habits (*Vishamashan*), which aggravates *dosha* imbalances.

38.3% consumed salty (*Lavana*) foods excessively, which is known to increase *Pitta*.

16.7% had smoking and gutkha chewing addictions, which can aggravate symptoms.

Disease Distribution & Patterns

Most lesions appeared on the lower extremities (40%) and were unilateral (73.3%).

70% of patients had moderate or severe skin thickening (lichenification), indicating chronicity.

42 patients had eczema due to external factors (exogenous), while 18 had endogenous causes.

Treatment History & Recurrence

Only 21.6% had prior treatment history, mainly allopathic.

Recurrence was observed in only two patients (one from each group).

Observation on statistical Analysis: -

Friedman's test, Wilcoxon signed-rank test, Mann-Whitney U test, ANOVA was used.

A comparative clinical study analyzed the effects of *Pracchanna Karma* followed by *Arka Taila* (herbal medicated oil) application (Group A) and *Arka Taila* (herbal medicated oil) application alone (Group B) on *Vicharchika* ((atopic dermatitis)). Statistical analysis was performed using SPSS software with tests like Friedman's test, ANOVA, Wilcoxon signed rank test, and Mann-Whitney test.

Subjective Parameters:

Kandu (Itching): Significant reduction in both groups ($p \leq 0.000$). Group A showed a more pronounced improvement ($X^2 = 115.67$) (Table No.2), while Group B also showed significant relief ($X^2 = 115.464$) (Table No.4),

Daha (Burning Sensation): Significant reduction in both groups ($p \leq 0.000$). Group A ($X^2 = 34.228$) (Table No.7), showed improvement mainly from week 1 to week 3, while Group B ($X^2 = 52.094$) (Table No.9), showed consistent improvement till week 4.

Vaivarnya (Discoloration): Marked improvement in both groups ($p \leq 0.000$). Group A ($X^2 = 112.607$) (Table No.12), showed greater improvement than Group B ($X^2 = 101.514$) (Table No.14),

Rukshata (Dryness): Significant reduction in dryness, with Group A showing better improvement ($p \leq 0.000$).

Objective Parameters:

SCORAD (Scoring Atopic Dermatitis):

Group A: Significant decrease from 2.133 ± 0.43 at baseline to 0.80 ± 0.40 at the end ($p=0.000$) (Table No.17).

Group B: Reduced from 1.866 ± 0.50 to 0.866 ± 0.43 ($p=0.002$) (Table No.17).

Lesion Area:

Group A: Reduced significantly from 2.733 ± 0.90 at baseline to 1.466 ± 0.68 ($p=0.000$) (Table No.19).

Group B: Decreased from 2.900 ± 0.92 to 2.066 ± 0.94 ($p=0.034$) (Table No.19).

Pracchanna Karma (bloodletting therapy) followed by *Arka Taila* (herbal medicated oil) application (Group A) showed superior efficacy in reducing itching (Table No.20), burning, discoloration (Table No.21), dryness (22), lesion size (Table No.24), and SCORAD (Table No.2 scores compared to *Arka Taila* (herbal medicated oil) alone (Group B). The findings suggest that *Pracchanna Karma* (bloodletting therapy) enhances the therapeutic effects of *Arka Taila* in managing *Vicharchika* ((atopic dermatitis)).

DISCUSSION

This study evaluates the effectiveness of *Pracchanna Karma* (a bloodletting therapy) combined with *Arka Taila* (herbal medicated oil) application in managing *Vicharchika* ((atopic dermatitis)). Previous research focused on various *taila* (oil) applications and *Raktamokshan* (bloodletting therapy) methods, but limited studies explored *Pracchanna Karma* (bloodletting therapy) with *Arka Taila* (herbal medicated oil). The study aims to provide a safer, more effective alternative to corticosteroids [4], which have harmful side effects.

Understanding *Vicharchika* ((atopic dermatitis))

Ayurvedic texts classify *Vicharchika*(atopic dermatitis) as *Kushtha* Roga (skin disease), with symptoms resembling wet and dry (atopic dermatitis). *Charaka* attributes it to *Kapha* predominance, while *Sushruta* describes *Pitta* involvement. It is a chronic skin disorder linked to *Tridosha* imbalance, with itching, dryness, and skin thickening.

Management Approach

Pracchanna Karma (bloodletting therapy) is a localized bloodletting procedure that removes vitiated *rakta* (blood), promoting detoxification and better healing. *Arka Taila* (herbal medicated oil) [8], containing *Haridra*(curcuma) [4][5], *Arka* (*Calotropis procera*) [7], and *Sarshapa*(Indian mustard) [6], has anti-inflammatory, antimicrobial, and skin-healing properties. It reduces itching, dryness, and discoloration.

Kandu (Itching): Significant reduction in itching was observed, with 96.4% improvement in the trial group compared to 82.4% in the control group (Table No.20).*Daha* (Burning Sensation): Both groups showed improvement, but *Pracchanna Karma* yielded faster relief (Table No.21).*Vaivarnya* (Discoloration): Marked improvement in skin tone, with *Pracchanna Karma*(bloodletting therapy) showing better cosmetic effects than *Arka Taila*(herbal medicated oil) alone (Table No.22).*Rukshata* (Dryness) & Lichenification: *Arka Taila*'s(herbal medicated oil) moisturizing and keratolytic effects significantly reduced skin thickening and improved texture.[9]

Table No.1 The SCORAD for an individual is $A/5+7B/2$. The maximal objective SCORAD score is 83

GRADE	ABSENT (0)	MILD (1)	MODERATE (2)	SEVERE (3)
Redness	none	Faintly detectable pink	Clearly distinguishable dull red	Deep dark or fiery bright red
Papulation	None	Barely perceptible Elevation	Clearly perceptible elevation but not prominent	Prominent Elevation
excoriation	None	Superficial excoriation	Many superficial and some Deep excoriation	Diffuse extensive superficial and many deep excoriations.
Skin Thickening	None	Slight thickening with minimal skin marking	Clearly thickened skin with exaggerated skin markings	Prominent skin thickening with exaggerated skin markings
dryness	No dryness	Dryness with rough skin	Dryness with scaling	Dryness with cracking

Table No.2 Showing the result of friedman test on *Kandu* Group-A

Levels	Mean Rank	N	X ²	df	Asymp.Sig.
<i>Kandu</i> BT	4.88	30	115.67	4	.000
<i>Kandu</i> wk1	4.00				
<i>Kandu</i> wk2	3.02				
<i>Kandu</i> wk3	2.07				
<i>Kandu</i> AT	1.03				

Table No.3 Showing the result of Wilcoxon signed ranks test for *Kandu* with Bonferroni correction (0.0125)

Parameters	Negative ranks			Positive ranks			Ties	Total	Z value	P value
	N	MR	SR	N	MR	SR				
<i>Kandu</i>										
<i>Kandu</i> wk1-BT	23	12	276	0	0.00	0.00	7	30	4.707	0.000
<i>Kandu</i> wk2-wk1	23	12	276	0	0.00	0.00	7	30	4.630	0.000
<i>Kandu</i> wk3-wk2	24	12.50	300	0	0.00	0.00	6	30	4.899	0.000
<i>Kandu</i> wk4-wk3	28	14.50	406	0	0.00	0.00	2	30	4.919	0.000
<i>Kandu</i> BT-wk4	30	15.5	465	0	0.00	0.00	0	30	4.950	0.000

Table No.4 Showing the result of friedman test on *Kandu* Group B

Parameters	N	Chi-Square	P value	Remark
<i>Kandu</i>	30	115.464	0.00	S

Table No.5 Showing the result of Wilcoxon signed ranks test for *Kandu* with Bonferroni correction (0.0125)

Group -B

Parameters	Negative ranks			Positive ranks			Ties	Total	Z value	P value
	N	MR	SR	N	MR	SR				
<i>Kandu</i>										
<i>Kandu</i> wk1-BT	11	6	66	0	0.00	0.00	19	30	3.207	0.000
<i>Kandu</i> wk2-wk1	27	14	378	0	0.00	0.00	3	30	5.196	0.000
<i>Kandu</i> wk3-wk2	23	12	276	0	0.00	0.00	7	30	4.796	0.000
<i>Kandu</i> wk4-wk3	28	14.50	406	0	0.00	0.00	2	30	5.070	0.000
<i>Kandu</i> BT- wk4	30	15.50	465	0	0.00	0.00	0	30	4.942	0.000

Table No.6 Between the group analysis (MANN-WHITNEY TEST)

Variable	Group name	N	Median	Mean Rank	Sum of Ranks	Z value	P value	Remarks
<i>Kandu</i> BT	Group A	30	4.00	29.88	896.50	-0.364	0.716	NS
	Group B	30	4.00	31.12	933.50			
<i>Kandu</i> wk1	Group A	30	3.00	24.88	746.50	-2.799	0.005	S
	Group B	30	3.00	36.12	1083.50			
<i>Kandu</i> wk2	Group A	30	2.00	25.43	763.00	-2.600	0.009	S
	Group B	30	2.00	35.57	1067.00			
<i>Kandu</i> wk3	Group A	30	1.00	24.68	740.50	-2.933	0.003	S
	Group B	30	2.00	36.32	1089.50			
<i>Kandu</i> wk4	Group A	30	0.00	22.93	688.00	-3.965	0.000	S
	Group B	30	1.00	38.07	1142.0			

Table No.7: Showing the result of friedman test on *DAHA* Group A

Parameters	N	Chi-square	P-value	Remark
<i>Daha</i>	30	34.228	0.00	S

Table No.8 Showing the result Wilcoxon signed ranks test for *Daha* with Bonferroni correction (0.0125)

Parameters	Negative ranks			Positive ranks			Ties	Total	Z value	P value
	N	MR	SR	N	MR	SR				
<i>Daha</i>										
<i>Daha</i> wk1-BT	4	2.50	10	0	0.00	0.00	26	30	2.000	0.046
<i>Daha</i> wk2-wk1	7	4	28	0	0.00	0.00	23	30	2.646	0.008
<i>Daha</i> wk3-wk2	9	5	45	0	0.00	0.00	21	30	3.000	0.003
<i>Daha</i> wk4-wk3	5	3	15	0	0.00	0.00	25	30	2.236	0.025
<i>Daha</i> BT-wk4	9	5	45	0	0.00	0.00	21	30	2.724	0.006

Table No.9 Showing the result of Friedman test on *Daha* Group B

Parameters	N	Chi-Square	P value	Remark
<i>Kandu</i>	30	52.094	0.00	S

Table No.10 Showing the result of Wilcoxon signed ranks test for *Daha* with Bonferroni correction (0.0125)Group B *Daha*

Parameters	Negative ranks			Positive ranks			Ties	Total	Z value	P value
	N	MR	SR	N	MR	SR				
<i>Daha</i>										
<i>Daha</i> wk1-BT	4	2.50	10	0	0.00	0.00	26	30	1.890	0.059
<i>Dahawk2</i> -wk1	9	5	45	0	0.00	0.00	21	30	3.000	0.003
<i>Daha</i> wk3-wk2	12	6.50	78	0	0.00	0.00	18	30	3.464	0.001
<i>Daha</i> wk4-wk3	11	6	66	0	0.00	0.00	19	30	3.207	0.001
<i>Daha</i> BT-wk4	14	7.50	105	0	0.00	0.00	16	30	3.401	0.001

Table No.11 Between the group analysis (MANN-WHITNEY TEST)

Variable	Group Name	N	Median	Mean Rank	Sum of Ranks	Z value	P value	Remarks
<i>Daha</i> BT	Group A	30	2.00	27.78	833.50	-1.389	0.165	NS
	Group B	30	3.00	33.32	996.50			
<i>Daha</i> wk1	Group A	30	2.00	27.60	828.00	-1.482	0.138	NS
	Group B	30	3.00	33.40	1002.00			
<i>Daha</i> wk2	Group A	30	1.00	27.70	831.00	-1.457	0.145	NS
	Group B	30	2.00	33.30	999.00			
<i>Daha</i> wk3	Group A	30	0.00	26.83	805.00	-2.071	0.038	S
	Group B	30	1.00	34.17	1025.00			
<i>Daha</i> wk4	Group A	30	0.00	29.50	885.00	-1.426	0.154	NS
	Group B	30	0.00	31.50	945.00			

Table No.12 Showing the result of friedman test on *Vaivarnya* Group A

Parameters	N	Chi-Square	P value	Remark
<i>Vaivarnya</i>	30	112.607	0.00	S

Table No.13: Showing the result of Wilcoxon signed ranks test for with Bonferroni *Vaivarnya* correction (0.0125)

Parameters	Negative ranks			Positive ranks			Ties	Total	Z value	P value
	N	MR	SR	N	MR	SR				
<i>Vaivarnya</i>										
<i>Vaivarnya</i> wk1-BT	1	1	1	0	0.00	0.00	29	30	1	0.317
<i>Vaivarnya</i> Wk2-wk1	25	13	325	0	0.00	0.00	5	30	4.838	0.000
<i>Vaivarnya</i> Wk3-wk2	11	6	66	0	0.00	0.00	19	30	3.317	0.001
<i>Vaivarnya</i> Wk4-wk3	25	13	325	0	0.00	0.00	5	30	4.772	0.000
<i>Vaivarnya</i> BT-wk4	30	15.50	465	0	0.00	0.00	0	30	4.901	0.000

Table No.14 Showing the result of friedman test on *Vaivarnya* Group B

Parameters	N	Chi-Square	P value	Remark
<i>Vaivarnya</i>	30	101.514	0.00	S

Table No.15: Showing the result of Wilcoxon signed ranks test for with Bonferroni *Vaivarnya* correction (0.0125)

Parameters	Negative ranks			Positive ranks			Ties	Total	Z value	P value
	N	MR	SR	N	MR	SR				
<i>Vaivarnya</i>										
<i>Vaivarnya</i> wk1-BT	0	0.00	0.00	0	0.00	0.00	30	30	0.000	1.000
<i>Vaivarnya</i> Wk2-wk1	17	9	153	0	0.00	0.00	13	30	4.123	0.000
<i>Vaivarnya</i> Wk3-wk2	12	6.50	78	0	0.00	0.00	18	30	3.464	0
<i>Vaivarnya</i> Wk4-wk3	17	9	153	0	0.00	0.00	13	30	4.123	0.000
<i>Vaivarnya</i> BT-wk4	30	15.50	465	0	0.00	0.00	0	30	4.932	0.000

Table No.16 Between the group analysis (MANN-WHITNEY TEST)

Variable	Group name	N	Median	Mean Rank	Sum of ranks	Z value	P value	Remarks
Vaivarnya BT	Group A	30	3.00	33.47	1004.00	-1.505	0.132	NS
	Group B	30	3.00	27.53	826.00			
Vaivarnya wk1	Group A	30	3.00	33.00	990.00	-1.257	0.209	NS
	Group B	30	3.00	28.00	840.00			
Vaivarnya wk2	Group A	30	2.00	27.83	835.00	-1.426	0.154	NS
	Group B	30	2.00	33.17	995.00			
Vaivarnya wk3	Group A	30	1.00	28.62	858.50	-0.940	0.347	NS
	Group B	30	2.00	32.38	971.50			
Vaivarnya wk4	Group A	30	0.00	23.90	717.00	-3.252	0.001	S
	Group B	30	1.00	37.10	1113.00			

Table No.17 Within Group analysis through ANOVA Test on SCORAD

PARAMETER	TRIAL GROUP			CONTROL GROUP		
WITHIN	MEAN \pm SD	F value	P value	MEAN \pm SD		
SCORAD BT	2.133 \pm 0.43	101.48	0.000	1.866 \pm 0.50	5.033	0.002
SCORAD WK1	1.933 \pm 0.44			1.766 \pm 0.56		
SCORAD WK2	1.166 \pm 0.37			1.433 \pm 0.50		
SCORAD WK3	1.033 \pm 0.18			1.000 \pm 0.37		
SCORAD AT	0.80 \pm 0.40			0.866 \pm 0.43		

Table No.18 Between Group analysis through ANOVA test on SCORAD

		MEAN \pm SD	F value	P value
BT- GROUP	BT	2.000 \pm 0.061	101.48	0.000
	WK1	1.850 \pm 0.066		
	WK2	1.300 \pm 0.058		
	WK3	1.107 \pm 0.038		
	AT	0.833 \pm 0.054		

Table No.19 Within Group Analysis through ANOVA test on area of lesion

Parameter	Trial group			Control group		
Within	MEAN \pm SD	F value	P value	MEAN \pm SD	F value	P value
Area BT	2.733 \pm 0.90	56.570	0.000	2.900 \pm 0.92	2.820	0.034
Area wk1	2.633 \pm 0.88			2.866 \pm 0.93		
Area wk2	2.466 \pm 0.89			2.833 \pm 0.91		
Area wk3	1.866 \pm 0.81			2.366 \pm 0.96		
Area AT	1.466 \pm 0.68			2.066 \pm 0.94		

Table No.20 Between group analysis through ANOVA test on area of lesion

		MEAN \pm SD	F value	P value
BT-Group	BT	2.817 \pm 0.118	56.570	0.000
	WK1	2.750 \pm 0.118		
	WK2	2.650 \pm 0.117		
	WK3	2.117 \pm 0.116		
	AT	1.767 \pm 1.106		

Table No.20 Percentage change in each group - *Kandu*

Trial group	N	Mean	%change	Control group	N	Mean	%change
BT	30	3.7000	96.4%	BT	30	3.7667	82.4%
WK1	30	2.9000		WK1	30	3.3667	
WK2	30	2.0667		WK2	30	2.4667	
WK3	30	1.2667		WK3	30	1.7000	
AT	30	0.1333		AT	30	0.6667	

Table No.21 Percentage change in each group -*Daha*

Trial group	N	Mean	%change	Control group	N	Mean	%change
BT	30	0.8333	100%	BT	30	1.3333	95.4%
WK1	30	0.7000		WK1	30	1.1667	
WK2	30	0.4667		WK2	30	0.8667	
WK3	30	0.1667		WK3	30	0.4667	
AT	30	0.0000		AT	30	0.0667	

Table No.22 Percentage change in each group -*Vaivarnya*

Trial group	N	Mean	%change	Control group	N	Mean	%change
BT	30	2.7333	84.2	BT	30	2.5000	61.6%
WK1	30	2.7000		WK1	30	2.5000	
WK2	30	1.7333		WK2	30	1.9333	
WK3	30	1.3667		WK3	30	1.5333	
AT	30	0.4333		AT	30	0.9667	

Table No.23 Percentage change in each group -SCORAD

Trial group	N	Mean	%change	Control group	N	Mean	%change
BT	30	2.1333	62.49%	BT	30	1.8667	53.76%
WK1	30	1.9333		WK1	30	1.7667	
WK2	30	1.1667		WK2	30	1.4333	
WK3	30	1.0333		WK3	30	1.0000	
AT	30	0.8000		AT	30	0.8667	

Table No.24 Percentage change in each group -Area of lesion

Trial group	N	Mean	%change	Control group	N	Mean	%change
BT	30	2.7333	46.5%	BT	30	2.9000	28.8%
WK1	30	2.6333		WK1	30	2.8667	
WK2	30	2.4667		WK2	30	2.8333	
WK3	30	1.8667		WK3	30	2.3667	
AT	30	1.4667		AT	30	2.0667	

CONCLUSION

On the basis of clinical study, observations and statistical analysis trial group shows better results than control group. All the physicochemical parameters in the study are within limit for *Arka Taila*(herbal medicated oil) and GC-MS study shows that *Arka Taila*(herbal medicated oil) is having some compounds that can directly act on skin. *Arka Taila*(herbal medicated oil) application shows good results in subjective and objective parameters but combined effect of *Pracchanna Karma*(bloodletting therapy) followed by *Arka Taila*(herbal medicated oil) application shows early and fast relief in *Kandu* and *Daha* and improvement in other symptoms like *Vaivarnya*, Lichenification and excoriation than control group. The combination of *Pracchanna Karma*(bloodletting therapy) and *Arka Taila*(herbal medicated oil) proves to be a safe, effective, and holistic treatment for *Vicharchika*(atopic dermatitis). It enhances drug absorption, detoxifies the skin, and accelerates healing, providing a promising alternative to conventional steroid-based treatments.

STRENGTHEN AND LIMITATIONS OF THIS STUDY

The study provides strong evidence for the efficacy and safety of *Pracchanna Karma*(bloodletting therapy) followed by *Arka Taila*(herbal medicated oil) in managing *Vicharchika* (atopic dermatitis). However, its small sample size, short follow-up, and lack of a modern medicine comparison limit its applicability. Future research with larger, multi-center, long-term trials with diverse populations and control groups is needed to strengthen the evidence.

Trial Registration

CTRI/2020/01/022817

Protocol Availability

Full protocol available upon request.

FUNDING & CONFLICT OF INTEREST

No external funding or conflicts of interest.

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