World Journal of Pharmaceutical and Life Sciences
WJPLS
www.wjpls.org
SJIF Impact Factor: 7.409

# A COMPARATTIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF PRACCHANA AND PRACCHANA FOLLOWED BY DURVADYA TAILA APPLICATION IN VICHARCHIKA WITH SPECIAL REFERENCE TO DRY ECZEMA

**Madhushree K. V.[1]* and Duragappa H.[2]**

[1]PG Scholar, [2]Professor, Department of Shalya Tantra, Government Ayurveda Medical College, Bangalore, Karnataka, India.

***Corresponding Author: Dr. Madhushree K. V.**
PG Scholar, Department of Shalya Tantra, Government Ayurveda Medical College, Bangalore, Karnataka, India.

**Article Received on 06/12/2024** **Article Revised on 26/12/2024** **Article Accepted on 16/01/2025**

**ABSTRACT**
*Vicharchika*, classified as one of the 11 *Kshudra Kushtas* by *Brihattrayees* and under *Kshudra Rogas* by Acharya Sushruta, presents clinical features similar to dry eczema, including erythema, scaling, dryness, itching, and red to brownish-grey patches. The condition is primarily caused by *Rakta Dushti* (vitiation of blood), and *Raktamokshana* provides significant symptom relief. In *Vicharchika*, localized blood vitiation makes *Pracchana* (a therapeutic bloodletting technique) an effective treatment for localized skin disorders. *Durva*, part of the *Varnya Maha Kashaya Gana*, balances *Kapha* and *Pitta* and is beneficial in treating skin conditions. The combination of *Pracchana* and *Durvadya taila* application is hypothesized to offer better clinical outcomes. A clinical study was conducted with 40 patients diagnosed with dry eczema, selected from the OPD and IPD of Shalya Tantra, SJGAUH Bengaluru. The participants were divided into two groups: Group A, which received only *Pracchana karma*, and Group B, which received *Pracchana karma* followed by the application of *Durvadya taila*. The efficacy of the treatments was assessed based on clinical parameters and statistically analyzed. The results showed a p-value of 0.25, indicating no significant difference between the two approaches. However, Group B demonstrated better clinical outcomes with good to moderate improvement compared to Group A. In conclusion, while both treatments are effective, the addition of *Durvadya taila* after *Pracchana karma* may offer a more favorable clinical response in managing *Vicharchika*.

**KEYWORDS:** *Vicharchika, Kshudra kushta, Raktamokshana, Pracchana, Durvadya taila.*

## INTRODUCTION

Ayurveda, the ancient system of medicine, offers comprehensive treatments for various skin diseases, referred to as "*Kushta*." *Vicharchika*, a type of *Kshudra Kushta*, is characterized by symptoms such as *Kandu* (Itching), *Ruja* (Pain), *Rukshata* (Dryness), and *Raji*[1] (scaling), and is closely associated with eczema in modern medicine. It is also enumerated under *kshudra rogas.*[2]

Eczema is a chronic inflammatory skin condition, prevalent worldwide, affecting both children and adults. It is a non-contagious inflammation of the skin characterised by erythema, scaling, oedema, dry skin, itching, red to brownish grey patches and can progress to chronic lichenified plaques.[3] Eczema's impact on daily life can be profound, causing discomfort, distress, and a decreased quality of life. Modern treatments for eczema primarily involve steroids, which can provide short-term relief but often lead to undesirable side effects like skin thinning and hypersensitivity. Alternative therapies, such as electrotherapy and ultraviolet treatment, have limited success. Ayurveda, however, addresses skin conditions holistically, focusing on balancing doshas and restoring the skin's natural health.

A key treatment in Ayurveda for *Kushta* includes *Raktamokshana*, which involves bloodletting techniques to remove vitiated blood from the affected area. One such procedure is "*Pracchana*," which involves making small superficial cuts to drain the stagnated doshas, particularly in *Ekadeshastha*[4] (Localized skin lesions) and *Alpa kushta*[5] (skin diseases with less vitiated doshas).

*Durvadya Taila*, a medicated oil made from *Durva* and *Tila taila*, is another Ayurvedic remedy often applied in skin conditions like *Vicharchika*. *Durva* which comes under *Varnya maha kashaya gana* has properties of *Kapha Pitta prashamana* and is indicated in *Twak roga*

as it is known for its anti-inflammatory, cooling, and wound-healing properties which helps to soothen dry, inflamed skin and promotes healing.[6] *Chakradutta* and other Ayurvedic texts recommend *Durvadya Taila* for various skin disorders, emphasizing its role in improving skin texture and reducing inflammation.[7]

The increasing prevalence of skin diseases, fuelled by modern lifestyle factors such as pollution, poor hygiene, and stress, makes it crucial to explore alternative treatments. Ayurveda offers promising solutions with minimal side effects, emphasizing personalized care based on the unique constitution and imbalances of the individual. The study aims to compare the efficacy of *Pracchana* followed by *Durvadya Taila* application versus *Pracchana* alone in managing *Vicharchika*, particularly in cases of dry eczema.

This clinical study seeks to evaluate the effectiveness of these Ayurvedic treatments in alleviating the symptoms of dry eczema, improving skin health, and enhancing the overall quality of life for individuals suffering from *Vicharchika*. By exploring the combination of *Pracchana* and *Durvadya Taila*, the study aims to contribute to the growing body of evidence supporting Ayurvedic approaches in modern dermatology.

## OBJECTIVES OF THE STUDY

1. To evaluate the efficacy of *Pracchana* in the management of *Vicharchika* with special reference to dry eczema.
2. To evaluate the efficacy of *Pracchana* followed by *Durvadya* taila application in the management of *Vicharchika* with special reference to dry eczema.
3. To compare the results of both the groups to ascertain the efficacy of *Pracchana* and *Pracchana* followed by *Durvadya taila* application in *Vicharchika* with special reference to dry eczema.

## MATERIALS AND METHODS

### Source of data

The study utilized various literary sources, including classical Ayurveda texts, modern books, journals, and relevant websites, to gather comprehensive information. A sample of 40 subjects exhibiting clinical features of *Vicharchika* (dry eczema) and meeting the inclusion criteria was selected from the OPD and IPD of SJGAUH, Bengaluru. The raw drugs required for the study were procured from approved vendors, and the *Taila* used in the treatment was prepared following classical references to ensure authenticity and adherence to traditional formulations.

### Method of collection of data

### Inclusion criteria

- Patients presenting with classical signs & symptoms of *Vicharchika* vis-à-vis Dry eczema of either sex were selected irrespective of their occupation.
- Patients between the age group 16-70 years.
- Lesions over hands, legs, feet, cubital and popliteal regions.

### Exclusion criteria

- Patients suffering from Systemic diseases like uncontrolled DM, HTN, Cardiac illness, Anaemia.
- Patients with bleeding disorders.
- Patients on anti-coagulant and anti-platelet drugs
- Pregnant & Lactating women.
- Patients suffering from Immunocompromised diseases.
- *Vicharchika* associated with other skin disorders.

### Investigations

Routine blood investigations CBC, ESR, CT, BT, RBS, HbA1C, HIV, HbSAg.

### Sampling design

**Sampling technique:** The Subjects who fulfilled the inclusion criteria, complying with the informed consent (IC) were selected using method of computer generated simple random sampling.

**Sampling size:** 40 patients diagnosed as *Vicharchika* vis-à-vis Dry eczema are divided into two groups i.e. Group A (*Pracchana*) and Group B (*Pracchana* followed by *Durvadya taila* application) containing 20 patients each.

### Materials required

**Pracchana**

Taila for sthanika abhyanga - Quantity sufficient
Tourniquet - 1
Sterile gloves - 2 pairs
Betadine solution - Quantity sufficient
Surgical blade no.11 - 1
Gauze - 3-5
Cotton pads - 1-2
Roller bandage - 1

### Preparation of study drug

The ingredients of ***Durvadya taila*** are

- *Durva Swarasa*– 4 parts,
- *Murchita Tila Taila* -1 part

### Preparation of durvadya taila

14 liters of *Durva swarasa* was extracted from fresh *Durva* collected from K.R. Market. It was then mixed with 3.7 *liters* of *murchita Tila Taila*, heated on a mild fire, and cooked for 2 days. The oil was filtered and collected in an airtight container after observing *Samyak paaka lakshanas*, such as *phenodgama* and *varti* formation from the *kalka* when rubbed between fingers.

### Treatment procedure in group a

3 sittings of pracchana with a gap of 7 days.

### Purva karma

- After monitoring the vitals, patient was asked to lie down or sit in *Sukhasana*.

- Tourniquet was tied firmly above the lesion.
- Site of the lesion was cleaned using betadine.

**Pradhana karma**

- Under all aseptic measures, superficial linear incisions were taken over the affected site from below upwards in vertical manner using surgical blade no.11
- The incisions were taken such that they are neither too deep, nor too superficial neither too far nor too close, avoiding overlapping of incisions

**Pashchat karma**

- Tourniquet was removed after the procedure and the site of the *Pracchana* was cleaned with *panchavalkala kashaya* followed by sterile dressing and bandaging was done.
- The dressing was adviced to remove on next day morning.

Next sitings of Pracchana were done on $7^{th}$,$14^{th}$ day.

**Treatment procedure in group b**

Same procedure as explained in Group A followed by *Durvadya taila* application, twice a day for 21 days from the day after *Pracchana*.

**Total study duration**

The treatment duration was 21 days, with observations recorded before treatment, and on the 1st, 7th, 14th, and 21st days (AT). A 1-month follow-up period was conducted to monitor for the recurrence of signs and symptoms.

**Assessment criteria**

**I. Subjective parameters**

- Itching
- Pain

**II. Objective parameters**

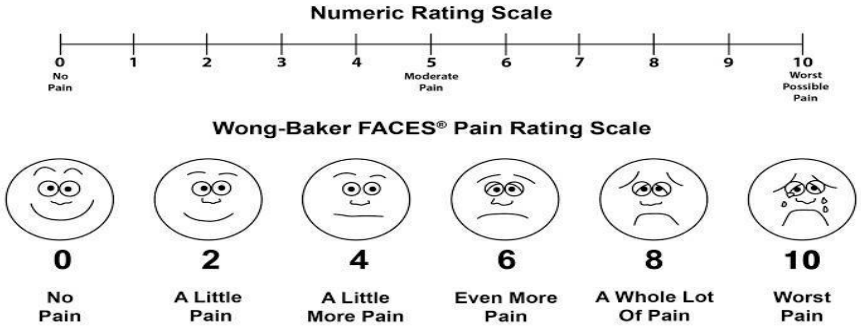
- Dryness
- Area
- Excoriation
- Lichenification
- Discolouration

**Gradation of parameters**

**1. Itching**

Grade 0- Absent
Grade 1- Mild (Not disturbing daily activities)
Grade 2- Moderate (Disturbing daily activities)
Grade 3- Severe (Disturbed activities and sleep)

**2. Pain: VAS Scale**




Grade 0- Absent
Grade 1- Mild (1-3)
Grade 2- Moderate (4-6)
Grade 3- Severe (8-10)

**3. Dryness**

Grade 0- Absent
Grade 1- Mild (Dryness with rough skin)
Grade 2- Moderate (Dryness with scaling)
Grade 3- Severe (Dryness with crackings)

**4. Excoriation**

Grade 0- Absent
Grade 1- Mild (Superficial excoriations)
Grade 2- Moderate (Many superficial and some deep excoriations)
Grade 3- Severe (Diffuse extensive superficial and many deep excoriations)

**5. Area**

Grade 0- < 1 $cm^2$
Grade 1- 1 $cm^2$ up to 20 $cm^2$
Grade 2- >20 $cm^2$ upto 40 $cm^2$
Grade 3- >40 $cm^2$ up to 60 $cm^2$
Grade 4- >60 $cm^2$ up to 80 $cm^2$
Grade 5- >80 $cm^2$ up to 100 $cm^2$

**6. Lichenification**

Grade 0- Absent
Grade 1- Mild (Light thickening of skin discernable only by touch)
Grade 2- Moderate (Definite thickening of skin with exaggerated markings & visible criss-cross pattern)
Grade 3- Severe (Thickened indurated skin & visible exaggerated criss-cross pattern)

**7. Discolouration**

Grade 0- Absent

Grade 1- Reddish
Grade 2- Blackish red
Grade 3- Black

**Assessment of the total effect of the study**

**Table 1: Showing the assessment chart for overall effect of the sytudy.**

| Response | Relevance |
|---|---|
| Unchanged / No response | 0-25% relief from the symptoms mentioned above |
| Poor | 26-50% relief from the symptoms |
| Moderate | 51- 75% relief from the symptoms |
| Good | 76- 99% relief from the symptoms |
| Cured | 100% relief from the symptoms |

**OBSERVATIONS AND RESULTS**

The clinical study results were analyzed using IBM SPSS Statistics Software. For within-group comparisons, Friedman's Test was applied, while between-group comparisons utilized the Mann-Whitney U test and Wilcoxon test. Differences in mean values were assessed, with p-values categorized as highly significant ($p<0.001$, $p<0.01$), significant ($p<0.05$), and not significant ($p>0.05$).

**1) Itching**

**Table 2: Effect on itching within group A.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.70 |
| D1 | 3.60 |
| D7 | 3.40 |
| D14 | 2.53 |
| AT | 1.78 |

| Test Statistics a,b | |
|---|---|
| N | 20 |
| Chi-Square | 38.573 |
| df | 4 |
| P value | .000 |
| a. Groups = Group A | |
| b. Friedman Test | |

The Friedman test on Group A (20 participants) showed a significant change in the "Itching" parameter across time points (Chi-Square = 38.573, df = 4, $p < 0.001$). The mean rank values decreased from BT (3.70) to AT (1.78), indicating a reduction in the severity of itching as treatment progressed.

**Table 3: Effect on itching within group B.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 4.03 |
| D1 | 4.03 |
| D7 | 3.33 |
| D14 | 2.20 |
| AT | 1.43 |

| Test Statistics a,b | |
|---|---|
| N | 20 |
| Chi-Square | 60.669 |
| df | 4 |
| P value | .000 |
| a. Groups = Group B | |
| b. Friedman Test | |

The test results (Chi-Square = 60.669, df = 4, p < 0.001) show a highly significant difference in ranks over time. Mean rank values decreased from BT (4.03) and D1 (4.03) to AT (1.43), with the most notable improvement after D7 (3.33). This indicates a significant reduction inseverity, particularly after the first week, continuing through to the final assessment.

**Table 4: Effect on itching Between Group A & B.**

| Test Statistics[a] | | | | | |
|---|---|---|---|---|---|
| | BT | D1 | D7 | D14 | AT |
| Mann-Whitney U | 130.000 | 124.000 | 144.000 | 166.000 | 159.500 |
| Wilcoxon W | 340.000 | 334.000 | 354.000 | 376.000 | 369.500 |
| Z | -2.079 | -2.234 | -1.675 | -1.029 | -1.233 |
| P value (2-tailed) | .038 | .025 | .094 | .303 | .218 |
| a. Grouping Variable: Groups | | | | | |
| b. Not corrected for ties. | | | | | |

The Mann-Whitney U test results indicated significant differences between Group A and Group B in BT (p = 0.038) and D1 (p = 0.025), suggesting that the two groups are statistically different in these variables. However, for D7, D14, and AT, the p-values are greater than 0.05 (0.094, 0.303, and 0.218, respectively), which means there is no sufficient evidence to reject the null hypothesis for these variables

**2) Pain**

**Table 5: Effect on Pain within Group A.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 2.40 |
| D1 | 2.53 |
| D7 | 4.05 |
| D14 | 3.50 |
| AT | 2.53 |
| a. Groups = Group A | |

| Test Statisticsa,b | |
|---|---|
| N | 20 |
| Chi-Square | 28.377 |
| df | 4 |
| P value | .000 |
| a. Groups = Group A | |
| b. Friedman Test | |

The Friedman test shows significant differences in the variables (Chi-Square = 28.377, p < 0.001) within Group A. Mean ranks for D7 (4.05) and D14 (3.50) are notably higher compared to BT, D1, and AT, which have lower mean ranks. This significant variation leads to the rejection of the null hypothesis.

**Table 6: Effect on Pain within Group B.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 2.63 |
| D1 | 2.73 |
| D7 | 4.08 |
| D14 | 3.50 |
| AT | 2.08 |
| a. Group = Group B | |

| Test Statistics a,b | |
|---|---|
| N | 20 |
| Chi-Square | 28.214 |
| df | 4 |
| P value | .000 |

| a. Groups = Group B |
|---|
| b. Friedman Test |

The Friedman test for Group B on 'Itching' shows a significant difference across the variables (Chi-Square = 28.214, p < 0.001). D7 (mean rank = 4.08) and D14 (mean rank = 3.50) have higher ranks compared to BT, D1, and AT, which are lower. This leads to the rejection of the null hypothesis, indicating significant variation between these measures in Group B.

**Table 7: Effect on Pain Between Group A & Group B.**

| Test Statistics[a] | | | | | |
|---|---|---|---|---|---|
| | BT | D1 | D7 | D14 | AT |
| Mann-Whitney U | 163.500 | 161.500 | 164.000 | 163.000 | 197.000 |
| Wilcoxon W | 373.500 | 371.500 | 374.000 | 373.000 | 407.000 |
| Z | -1.260 | -1.259 | -1.284 | -1.329 | -.102 |
| P value (2-tailed) | .208 | .208 | .199 | .184 | .919 |
| a. Grouping Variable: Groups | | | | | |
| b. Not corrected for ties. | | | | | |

The Mann-Whitney U test shows no significant differences between Group A and Group B for any variables (BT, D1, D7, D14, AT), with all p-values exceeding 0.05. The lowest p-value is 0.184 for D14, which is not statistically significant. Z-scores also indicate no substantial differences between the groups. Therefore, there are no significant differences across the measures.

**3) Dryness**

**Table 8: Effect on dryness within Group A.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.73 |
| D1 | 3.73 |
| D7 | 3.15 |
| D14 | 2.65 |
| AT | 1.75 |

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 43.920 |
| df | 4 |
| P value | .000 |
| a. Groups = Group A | |
| b. Friedman Test | |

Friedman test for Dryness within Group A shows significant differences across BT, D1, D7, D14, and AT (Chi-Square = 43.920, p < 0.001). BT and D1 have the highest mean ranks (3.73), while AT has the lowest (1.75), indicating a decline over time. The null hypothesis is rejected, confirming significant variations across the variables, with AT showing the lowest rank.

**Table 9: Effect on dryness within Group B.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 4.20 |
| D1 | 4.20 |
| D7 | 3.00 |
| D14 | 2.13 |
| AT | 1.48 |

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 63.482 |

| | |
|---|---|
| df | 4 |
| P value | .000 |
| a. Groups = Group B | |
| b. Friedman Test | |

The Friedman test for dryness in Group B (Chi-Square = 63.482, $p < 0.001$) shows significant differences. BT and D1 had the highest mean ranks (4.20), indicating greater dryness, while AT had the lowest (1.48), confirming substantial variability in dryness levels.

**Table 10: Effect on dryness between Group A & Group B.**

| Test Statistics[a] | | | | | |
|---|---|---|---|---|---|
| | BT | D1 | D7 | D14 | AT |
| Mann-Whitney U | 154.000 | 154.000 | 197.000 | 184.000 | 170.500 |
| Wilcoxon W | 364.000 | 364.000 | 407.000 | 394.000 | 380.500 |
| Z | -1.357 | -1.357 | -.089 | -.484 | -.909 |
| P value (2-tailed) | .175 | .175 | .929 | .628 | .363 |
| a. Grouping Variable: Groups | | | | | |
| b. Not corrected for ties. | | | | | |

The Mann-Whitney U test shows no significant differences between Group A and Group B across all variables (BT, D1, D7, D14, AT), with p-values all greater than 0.05. The lowest p-values (0.175 for BT and D1) are not statistically significant. Z-scores range from -0.089 to -1.357, further supporting no significant differences. Thus, we fail to reject the null hypothesis, indicating no evidence of a significant difference between the groups.

**4) Lichenification**

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 24.000 |
| df | 4 |
| P value | .000 |
| a. Groups = Group A | |
| b. Friedman Test | |

**Table 11: Effect on Lichenification within Group A.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.40 |
| D1 | 3.40 |
| D7 | 3.15 |
| D14 | 2.65 |
| AT | 2.40 |
| a. Groups = Group A | |

The Friedman test within Group A shows significant differences in lichenification (chi-square = 24.000, $p = 0.000$). The mean ranks indicate that BT and D1 have the highest ranks (3.40), followed by D7 (3.15), D14 (2.65), and AT (2.40). This suggests BT and D1 have the greatest impact on lichenification, while AT has the least. Since the p-value is less than 0.05, we reject the null hypothesis, indicating significant variation in lichenification across these variables.

**Table 12: Effect on Lichenification within Group B.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.23 |
| D1 | 3.23 |
| D7 | 3.23 |
| D14 | 2.85 |
| AT | 2.48 |

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 19.200 |
| df | 4 |
| P value | .001 |
| a. Groups = Group B | |
| b. Friedman Test | |

The Friedman test in Group B shows significant differences in lichenification (p = 0.001). BT, D1, and D7 have similar mean ranks (3.23), while D14 (2.85) and AT (2.48) have lower ranks, indicating a smaller impact. Since the p-value is below 0.05, we reject the null hypothesis, confirming variation in lichenification across these variables.

**Table 13: Effect on Lichenification Between Group A & Group B.**

| Test Statistics[a] | | | | | |
|---|---|---|---|---|---|
| | BT | D1 | D7 | D14 | AT |
| Mann-Whitney U | 173.500 | 173.500 | 180.500 | 185.500 | 176.000 |
| Wilcoxon W | 383.500 | 383.500 | 390.500 | 395.500 | 386.000 |
| Z | -.756 | -.756 | -.556 | -.420 | -.699 |
| P value (2-tailed) | .450 | .450 | .578 | .675 | .485 |
| a. Grouping Variable: Groups | | | | | |
| b. Not corrected for ties. | | | | | |

The Mann-Whitney U test shows no significant differences in lichenification between Group A and Group B across all variables (BT, D1, D7, D14, AT), with all p-values exceeding 0.05. The lowest p-values for BT and D1 are 0.450, indicating no statistical significance. Therefore, there is no significant variation in lichenification between the groups.

**5) Area**

**Table 14: Effect on Area within Group A.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.15 |
| D1 | 3.15 |
| D7 | 3.03 |
| D14 | 3.03 |
| AT | 2.65 |

| Test Statisticsa,b | |
|---|---|
| N | 20 |
| Chi-Square | 12.000 |
| df | 4 |
| P value | .017 |
| a. Groups = Group A | |
| b. Friedman Test | |

The Friedman test for Group A shows significant differences among the variables (BT, D1, D7, D14, and AT), with a p-value of 0.017. BT and D1 have the highest mean ranks (3.15), while AT has the lowest (2.65). Since the p-value is below 0.05, we reject the null hypothesis, indicating significant variability in these variables' effects.

**Table no. 15: Effect on Area within Group B.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.45 |
| D1 | 3.45 |
| D7 | 3.33 |
| D14 | 2.95 |
| AT | 1.83 |

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 40.400 |
| df | 4 |
| P value | .000 |
| a. Groups = Group B | |
| b. Friedman Test | |

The Friedman test in Group B shows significant differences across the variables (BT, D1, D7, D14, and AT), with a p-value of 0.000. BT and D1 have the highest mean ranks (3.45), while AT has the lowest (1.83). Since the p-value is below 0.05, the null hypothesis is rejected, indicating significant variability in the effects.

**Table 16: Effect on Area Between Group A & Group B.**

| Test Statistics[a] | | | | | |
|---|---|---|---|---|---|
| | BT | D1 | D7 | D14 | AT |
| Mann-Whitney U | 136.000 | 136.000 | 133.000 | 141.500 | 183.000 |
| Wilcoxon W | 346.000 | 346.000 | 343.000 | 351.500 | 393.000 |
| Z | -1.822 | -1.822 | -1.900 | -1.680 | -.478 |
| P value (2-tailed) | .068 | .068 | .057 | .093 | .633 |
| a. Grouping Variable: Group A & B | | | | | |
| b. Not corrected for ties. | | | | | |

The Mann-Whitney U test results indicate no significant differences between Group A and Group B across the variables (BT, D1, D7, D14, and AT), as all p-values are greater than 0.05. Therefore, we conclude that there is no statistically significant variation in the effects among these variables between the two groups.

**6) Excoriation**

**Table 17: Effect on Excoriation within Group A.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 2.83 |
| D1 | 2.83 |
| D7 | 3.58 |
| D14 | 3.33 |
| AT | 2.45 |

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 13.838 |
| df | 4 |
| P value | .008 |
| a. Groups = Group A | |
| b. Friedman Test | |

The Friedman test in Group A shows significant differences among the variables (BT, D1, D7, D14, and AT), with a p-value of 0.008. D7 has the highest mean rank (3.58), while AT has the lowest (2.45). The null hypothesis is rejected, indicating variability in these effects.

**Table 18: Effect on Excoriation within Group B.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.05 |
| D1 | 3.05 |
| D7 | 3.68 |
| D14 | 3.18 |
| AT | 2.05 |

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 18.979 |
| df | 4 |
| P value | .001 |
| a. Groups = Group B | |
| b. Friedman Test | |

The Friedman test reveals a significant difference in excoriation levels among the four groups (BT, D1, D7, and D14) within Group B. The chi-square statistic is 18.979 with 4 degrees of freedom, significant at the 0.001 level, indicating that the differences in excoriation levels are not due to chance.

**Table 19: Effect on excoriation between Group A & Group B.**

| Test Statistics[a] | | | | | |
|---|---|---|---|---|---|
| | BT | D1 | D7 | D14 | AT |
| Mann-Whitney U | 197.000 | 197.000 | 199.500 | 182.500 | 159.000 |
| Wilcoxon W | 407.000 | 407.000 | 409.500 | 392.500 | 369.000 |
| Z | -.089 | -.089 | -.019 | -.564 | -1.321 |
| P value (2-tailed) | .929 | .929 | .985 | .573 | .187 |
| a. Grouping Variable: Group A & B | | | | | |
| b. Not corrected for ties. | | | | | |

The Mann-Whitney U test shows no significant difference in excoriation levels between Group A and Group B for any of the conditions (BT, D1, D7, D14, and AT). The largest negative Z-score of -1.321 for condition AT is not significant at the 0.05 level (p-value = 0.187), indicating no statistically significant differences between the two groups.

**7) Discoloration**

**Table 20: Effect on Discoloration Within Group A.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.63 |
| D1 | 3.63 |
| D7 | 3.38 |
| D14 | 2.50 |
| AT | 1.88 |

| Test Statistics a,b | |
|---|---|
| N | 20 |
| Chi-Square | 42.162 |
| df | 4 |
| P value | .000 |
| a. Groups = Group A | |
| b. Friedman Test | |

The Friedman test revealed a significant difference in excoriation levels across the four conditions (BT, D1, D7, D14) within Group A, with a chi-square statistic of 42.162 (4 degrees of freedom, $p < .001$), indicating the differences are not due to chance.

**Table 21: Effect on Discoloration Within Group B.**

| Ranks[a] | |
|---|---|
| | Mean Rank |
| BT | 3.75 |
| D1 | 3.75 |
| D7 | 3.40 |
| D14 | 2.53 |
| AT | 1.58 |

| Test Statistics[a,b] | |
|---|---|
| N | 20 |
| Chi-Square | 50.816 |
| df | 4 |
| P value | .000 |
| a. Groups = Group B | |
| b. Friedman Test | |

The Friedman test revealed a significant difference in excoriation levels across the four conditions (BT, D1, D7, D14) within Group B, with a chi-square statistic of 50.816 (4 degrees of freedom, $p < .001$), indicating the differences are not due to chance.

**Table 22: Effect on Discoloration Between Group A & Group B.**

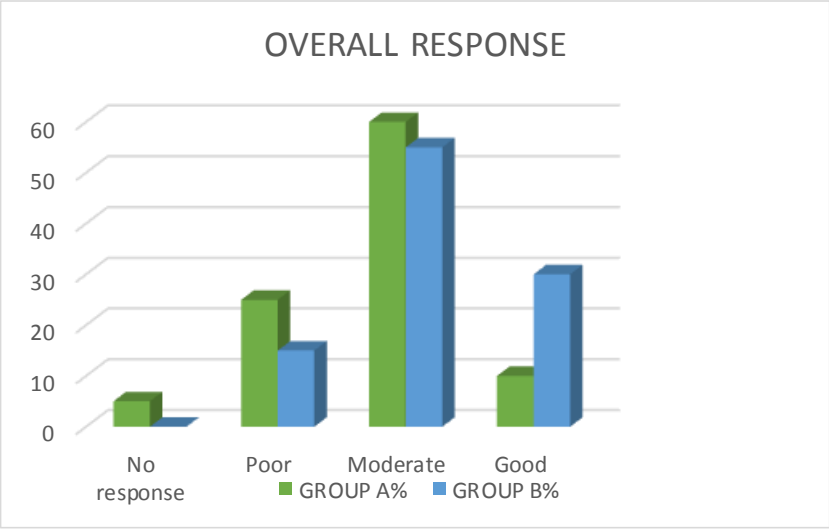
| Test Statistics[a] | | | | | |
|---|---|---|---|---|---|
| | BT | D1 | D7 | D14 | AT |
| Mann-Whitney U | 193.500 | 193.500 | 190.500 | 192.000 | 169.500 |
| Wilcoxon W | 403.500 | 403.500 | 400.500 | 402.000 | 379.500 |
| Z | -.215 | -.215 | -.295 | -.233 | -.945 |
| P value (2-tailed) | .829 | .829 | .768 | .816 | .345 |
| a. Grouping Variable: Group A & B | | | | | |
| b. Not corrected for ties. | | | | | |

The Mann-Whitney U test found no significant difference in discoloration levels between Group A and Group B across all conditions (BT, D1, D7, D14, AT). The largest negative Z-score of -0.945 for condition AT ($p = .345$) further supports this.

**Overall effect of treatment on Group A & Group B**

**Table 23: Overall Effect of Treatment Between Group A & Group B.**

| Overall effect | | | |
|---|---|---|---|
| **Class** | **Grading** | **No of subjects** | |
| | | GROUP A | GROUP B |
| 0-25% | No response | 1 | 0 |
| 26%-50% | Mild | 5 | 3 |
| 51%-75% | Moderate | 12 | 11 |
| 76%-99% | Marked | 2 | 6 |
| 100% | Cured | 0 | 0 |
| TOTAL | | 20 | 20 |




In Overall response p-value obtained was 0.25 which is greater than the common significance level of 0.05, indicating that there is no statistically significant difference between Group A and Group B.

## DISCUSSION

### Discussion on observations

The study revealed that most patients (32.5%) were aged 51-60 years, likely due to factors such as aging, stress, and environmental allergens contributing to skin conditions like Kushta. A significant majority (75%) were male, possibly reflecting higher exposure to external allergens. The majority of patients were Hindus, consistent with the demographic predominance in Bengaluru. Occupational analysis showed that 45% were fieldworkers, followed by physical laborers (37.5%), desk workers (12.5%), and housewives (22.5%), with active workers encountering more allergens. Most patients (57.5%) were from lower-middle-class backgrounds, where poor hygiene could exacerbate skin diseases. A mixed diet was followed by 75% of patients, with non-vegetarians more prone to eczema, aligning with the Nidana of Kushta. While 85% of patients reported a good appetite, 90% had regular bowel movements, and 7.5% experienced constipation, which may aggravate Vata dosha and Ama accumulation. Disturbed sleep, reported by 45% of patients due to nighttime itching, exacerbates stress and hinders skin healing. Addictions like alcohol (20%) and smoking (5%) contributed to inflammation and dehydration, worsening eczema. Lesions were most common on the feet (22.5%), with over half of the patients experiencing eczema for more than a year, typically lasting 5-10 years.

### Discussion on procedure

The procedure involved three key stages: *Purva Karma*, *Pradhana Karma*, and *Pashchat* Karma. In *Purva Karma*, *Sthanika Abhyanga* was performed to protect the skin, soften tissues, and facilitate dosha dissolution, followed by *Sthanika Swedana* to enhance circulation, metabolism, and mobilization of doshas. A tourniquet was applied 3-4 inches above the lesion during *Pracchana* to restrict venous flow and aid in the expulsion of morbid materials without obstructing arterial flow. In *Pradhana Karma*, precise cuts allowed the drainage of *dushta jaleeya dhatu*, including *Rasa*, *Rakta*, and *Laseeka*, starting from the inferior to the superior end of the lesion, ensuring complete removal of stagnated fluids. *Pashchat Karma* included applying *Panchavalkala Kwatha* to control bleeding, reduce inflammation, and prevent infections while promoting healing, followed by sterile dressing to protect wounds and maintain a clean healing environment.

**Observations done during the procedure:** Patients with lichenified skin tolerated multiple incisions better, while those without thickened skin experienced more pain. Some patients reported a burning sensation when the wound was cleaned with *Panchavalkala Kwatha*. Blood oozing was more pronounced in non-lichenified lesions, while it was minimal in cases of severe lichenified eczema.

### Discussion on results

#### Effect on itching

Both groups showed significant reductions in itching over time, with Group B having a more pronounced improvement post-treatment. This suggests that *Pracchana* and *Durvadya Taila* effectively reduced itching by addressing impure blood and dryness.

#### Effect on pain

Pain levels significantly decreased over time for both groups, peaking on Day 7 and declining by Day 14. There were no significant differences between groups at any time point (all $p > 0.05$), with peak pain likely due to surgical incisions.

#### Effect on dryness

Both groups showed significant reductions in dryness, with Group B demonstrating a greater improvement, likely due to the "*snigdha guna*" of *Durvadya Taila*.

#### Effect on lichenification

Both groups experienced significant reductions in lichenification, but no significant differences were found between groups at any time point (all $p > 0.05$). *Pracchana* improved local circulation, helping reduce skin thickness.

#### Effect on area of lesion

Both groups showed significant reductions in lesion size, with Group B showing a more pronounced decrease. There were no significant differences between groups (all $p > 0.05$), with *Pracchana* aiding in circulation and inflammation reduction.

#### Effect on excoriation

Excoriation levels significantly decreased over time for both groups, but there were no significant differences between groups (all $p > 0.05$). The reduction may be attributed to the wound-healing properties of *Panchavalkala kwatha* and *Durvadya Taila.*

#### Effect on discoloration

Both groups showed significant changes in discoloration over time, with no significant differences between groups (all $p > 0.05$), indicating similar effects of treatment in both groups.

### Discussion on mode of action of pracchana

*Pracchana* involves superficial incisions or punctures in the skin, drawing out vitiated *Rakta* and associated *Doshas* from the lesion. This process helps balance the body's doshas, contributing to a reduction in the disease (*Vyadhi*) and its symptoms (*Lakshanas*). *Pracchana* enhances drug delivery by allowing better absorption of medications such as *lepa* and *taila*, while stimulating the wound healing cascade. It triggers an inflammatory response, which supports tissue regeneration, removes toxins, and improves circulation. For conditions like *Vicharchika* (eczema), which involve *Kapha* and *Pitta doshas*, *Pracchana* is particularly effective due to its

ability to create an outlet for the vitiated fluids (*Kapha* and *Pitta*).

**Discussion on mode of action of durvadya taila**

Durvadya Taila treats dry eczema by restoring moisture and elasticity to the skin, improving its barrier function. Its emollient properties reduce water loss, while anti-inflammatory and antipruritic effects balance *Kapha* and *Pitta* doshas. The oil's antioxidant properties protect the skin from oxidative stress, aiding regeneration and barrier repair. Additionally, it has antimicrobial effects, preventing secondary infections. These combined actions help alleviate symptoms of eczema, including itching, scaling, and inflammation.

**Discussion on overall response**

A comparison between Group A (*Pracchana*) and Group B (*Pracchana* followed by *Durvadya Taila*) showed notable differences in patient outcomes. In Group B, 30% of patients showed marked improvement (76-99%), compared to just 10% in Group A. Moderate improvement was observed in 60% of Group A patients and 55% of Group B patients. Mild improvement occurred in 25% of Group A patients and 15% in Group B. Additionally, 5% of Group A patients reported no improvement, whereas no patients in Group B showed no improvement. Overall, Group B exhibited higher efficacy, particularly in achieving marked improvement.

## CONCLUSION

In conclusion, both *Pracchana* and *Pracchana* followed by *Durvadya taila* application demonstrated efficacy in managing *Vicharchika*, particularly dry eczema. The study of 40 patients showed improvement in symptoms like itching, pain, dryness, and discoloration, with Group B (*Pracchana* followed by *Durvadya taila*) showing slightly superior results. The combined treatment had a higher percentage of good responses, indicating its more favorable effect. The study also noted the chronic nature of *Vicharchika*, with no specific age group being predominantly affected, though middle-aged individuals were more commonly diagnosed. Environmental and dietary factors played a role in the disease's incidence.

**Before & After treatment in group a**

**Before treatment**

**After treatment**

**Before & After treatment in group b**

**Before treatment**

**After treatment**

## REFERENCES

1. Acharya Sushruta. Sushruta samhita with Nibandha Sangraha commenatry of Sri Dalhanacharya, edited by Vaidya Yadavji Trikamji Acharya, Chaukambha Sanskrit Sansthan Publication, reprint edition, Nidana sthana, 2015; 5, 13: 285.
2. Acharya Sushruta. Sushruta samhita with Nibandha Sangraha commenatry of Sri Dalhanacharya, edited by Vaidya Yadavji Trikamji Acharya, Chaukambha Sanskrit Sansthan Publication, reprint edition, 2015; 13: 3-318.

3. P. N. Behl, A. Aggarwal, Govind Srivastava, practice of dermatology, edition, New delhi, CBS Publishers & Distributors, Dermatitis & Eczema, pg. no, 2005; 10: 12
4. Vagbhata, Ashtanga Hridaya with Sarvanga sundara and Ayurveda rasayana commentary, Chaukambha Surbharati Prakashan, edition, Sutra sthana, Ch, 2017; 26: 53-325.
5. Acharya Charaka. Charaka Samhita by Agnivesha revised by charaka and Dridabala with Ayurvedadipika commentary of chakrapanidatta, Chaukambha publications, reprint, 2016; 7: 40-452.
6. Dr J.L.N. Shastry, Illustrated Dravyaguna Vijnana, Chaukambha Publication, 2017; 1036.
7. Chakrapani Datta. Chakradatta Sanskrit text with English translation by Priya Vrat Sharma, Chaukambha publishers, 2002; 3, 50: 158-408.