

**COMPARATIVE STUDY OF EFFICACY OF ERANDA MOOLA  
KASHAYA PARISHEKA AND TRIPHALA KASHAYA PARISHEKA IN  
THE MANAGEMENT OF VATAJA ABHISHYANDA (SIMPLE  
ALLERGIC CONJUNCTIVITIS)**

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**ABSTRACT**

Acharya Sushruta described Abhishyanda in Sarvagata Vyadhi, affecting all parts of the eye. It is of four types –Vataja abhishyanda, Pittaja abhishyanda, Kaphaja abhishyanda, Raktaja abhishyanda. Abhishyanda is considered as root cause of all eye diseases. If it is not treated in time it leads to severe complications like Adhimantha and Hatadhimantha. To avoid such complications Acharya Sushruta has stressed on the importance of immediate need of treatment in this disease. The drugs present in modern medicine are very costly and not safe to all the patients. Simple allergic conjunctivitis is one of such condition in which all the patients do not respond equally to available anti allergic drugs. None of the anti allergic drugs available in the market can cure the conjunctivitis completely and steroids cause many of the side effects. Chakshushya dravyas are those drugs which are

beneficial to the eyes and eyes disorders. Eranda moola and Triphala is one of the usefull chakshushya dravya. Eranda moola having Vatagna and Triphala having Tridoshagna property which is usefull in eye diseases.

**KEYWORDS:** Vataja abhishyanda, Eranda moola, Triphala.

## INTRODUCTION

Ayurvedic approach towards the disease is holistic. Numerous therapeutic Modalities have been advocated by our Acharyas in the management of each and every disease of eye. But their efficacy needs re-establishment by means of thorough and intensive research. In the present era of 21<sup>st</sup> century, due to busy life style and pollution of air, water etc leads to many of the eye diseases. Patients does not have time to think and act for the healthy life and not able to follow the proper instructions for care of the eye, which may be responsible for the Recurrent and relapsing nature of the disease Simple Allergic conjunctivitis. Abhishyanda is one of the aupsargic roga means contagious in nature. It can spread from person to person by sharing the articles like cloths, cosmetics items and close contact with Infected person. It is also caused due to seasonal allergens like grass, pollens, weeds, animal dandruff and pollution is the main cause. In the modern ophthalmology it stays compatible with Simple Allergic Conjunctivitis. Conjunctivitis is an inflammation of the conjunctiva characterized by cellular infiltration and exudation.

**Aim-** To compare the efficacy of Eranda moola kashaya Parisheka and Triphala kashaya Parisheka in Vataja Abhishyanda (Simple allergic conjunctivitis)

## Objectives

- 1) To study the efficacy of Eranda moola kashaya Parisheka.
- 2) To study the efficacy of Triphala kashyaya moola kashaya Parisheka.
- 3) To observe the adverse effect if any

## MATERIAL AND METHODS

This study is selected on the basis of conceptual and clinical study. For clinical study 50 patients were selected. Eranda moola and triphala has selected on its properties, easy availability and cost effectiveness.

## Material

- 1) Gas stove-For making kashaya for parisheka.
- 2) Metal utensil- For preparing the kashaya for parisheka.
- 3) Strainer- For filtering the prepared kashaya.
- 4) Cotton pad- For filtering the fine particles of the Eranda moola bharad and Triphala bharad.
- 5) Gauze piece- For cleaning the eyes.

- 6) Empty Sterile I.V fluid bottle and B.T (Blood transfusion) set for filtration of kashaya and for conducting the Parisheka procedure.
- 7) Written informed consent.
- 8) Case record form.
- 9) Drug Standardisation-  
Standardisation of Eranda moola kashaya and Triphala kashya was done at Research Laboratory.

## METHODOLOGY

**A) CONCEPTUAL:** Ayurvedic Samhitas, various research publications and concerned modern texts, previous research materials and from internet.

## B) PHARMACEUTICAL

### Drug collection and Authentication

- 1) Eranda moola bharad and Triphala bharad were taken from market.
- 2) Authentication of Eranda moola and Triphala phala was done from Agharkar Research Institute.

### Preparation of kashaya

Kashaya was prepared as per method mentioned in Sharangdhar Samhita.

Eranda moola bharad /Triphala bharad (250gm) 1 Part



Add water (4000 ml) 16 Parts Boil it at low flame



Reduce it to 1/8 quantity

Filter the kashaya by cotton pad and strainer

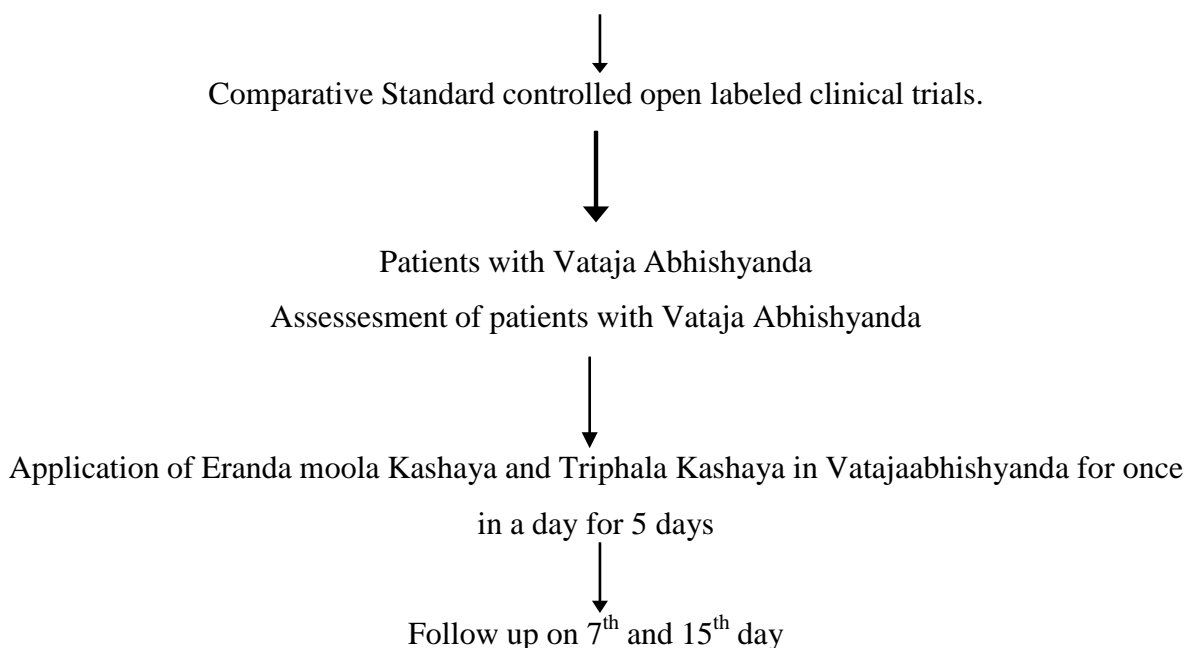


The prepared kashaya was filled in Sterile I.V fluid bottle for Parisheka

## A) CLINICAL

### SELECTION OF PATIENTS

The patients of Vataja abishyanda attending the O.P.D of Shalakyatantra, Ayurved Rugnalaya and Sterling Multispeciality Hospital were selected. They were further subjected to following criteria of inclusion and exclusion.

**Methodology for clinical trial****INCLUSION CRITERIA**

- Patients having signs and symptoms of Vataja abhishyanda were selected.
- Patient from age group 16 years to 60 years were selected.
- Irrespective of gender, religion, socio economic status.

**EXCLUSION CRITERIA**

- Congenital anomalies of eye.
- Patient having any other known ocular pathology, example bacterial conjunctivitis, corneal involvement.
- One eyed patient.
- Steven Johnson syndrome.

**WITHDRAWAL CRITERIA**

- Any adverse effect of medicine seen in patient.
- Patient not willing to continue treatment and follow up.

**GROUPS**

These patients were divided into 2 groups

- a) Group A- In this group 25 patients were treated with Eranda moolakashaya Parisheka for 5 days.
- b) Group B- In this group 25 patients were treated with Triphala kashaya Parisheka for 5

days.

### Follow up of the patients

Parisheka was done for once in a day for 5 days. Follow up on 7<sup>th</sup> and 15<sup>th</sup> day.

In case of any recurrence of the symptoms, the patients were advised to visit even before the scheduled follow up.

### DIAGNOSTIC CRITERIA

- 1) Toda (pricking sensation)
- 2) Stambha (stiffness of lids)
- 3) Sangharsha (F.B sensation)
- 4) Parushya (dryness sign)
- 5) Vishushka Bhava (dryness feeling)
- 6) Shishirasruta
- 7) Acchasruta (clean/watery discharge)
- 8) Alpa Shopha (mild chemosis)
- 9) Jantunam iva sarpanam.
- 10) Nimeshonmeshana krichchata (difficulty in lid movements)
- 11) Akshiadhamana iva bhati (feeling of distended eyes)
- 12) Shushaka dushika (dry discharge)
- 13) Alpa dushika (scanty discharge)
- 14) Chala ruja
- 15) Ragata
- 16) Kandu (itching)

### DRUG APPLICATION

#### Purvakarma

- To avoid the anxiety the procedure was explained to the patients.
- Parisheka was performed in a place having sufficient light and devoid of direct blowing wind and dust.
- Patient was asked to lie comfortably in supine position on a table and eye was cleaned using sterile cotton swab.
- To avoid the anxiety the procedure was explained to them.

**Pradhanakarma**

- After completion of Purvakarma, the patient was asked to relax and maintain the supine position on the table.
- The patient was asked to close the eyes and stream of parisheka was poured from the height of 4 angula (7cm approx.) on closed eyes (closed eyelids), kaneeneka sandhi for 400 wangmatra (4 minutes.approx.)

**Method of conducting Parisheka****Pashchatkarma**

- After performing the Parisheka, the eyes were cleaned with sterile cotton.
- Mild fomentation was given to eyes with cotton dipped in warm water.
- After this procedure, patient was asked to open eyes slowly.
- The patient was advised to avoid exposing wind, sun, dust, not to look minute or bright objects and to follow hygienic measures.

**Statistical observations and result**

Following observations were done irrespective of age, gender, religion, economical status, family history of allergy with Vataja abhishyanda and also on the basis of change in the symptoms of patients.

Following observation were done according to –

Group A –25 patients were treated with Eranda moola kashaya Parisheka. Group B –25 patients were treated with Triphala kashaya Parisheka.

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Following observation were done according to –

Group A –25 patients were treated with Eranda moola kashaya Parisheka. Group B –25 patients were treated with Triphala kashaya Parisheka.

| Signs and symptoms             | Assesment Criteria                                 | Result /Grade |
|--------------------------------|--|---------------|
| 1) Toda (pricking pain)        | Absent-No pain                                     | 0             |
|                                | a) Mild-occasionally present                       | 1             |
|                                | b) Moderate-frequently present                     | 2             |
|                                | c) Severe-Almost present, disturbing routine work  | 3             |
| 2) Stambha (stiffness of lids) | a) Absent –no stambha                              | 0             |
|                                | b) Mild-occasionally present                       | 1             |
|                                | c) Moderate- frequently present                    | 2             |
|                                | d) Severe- Almost present, disturbing routine work | 3             |
| 3) Sangharsha (F.B sensation.) | a) Absent –No sangharsha                           | 0             |
|                                | b) Mild- occasionally present                      | 1             |
|                                | c) Moderate- frequently present                    | 2             |
|                                | d) Severe -Almost present, disturbing routine work | 3             |
| 4) Parushya (dryness sign)     | a) Absent –no parushya                             | 0             |
|                                | b) Mild- occasionally present                      | 1             |
|                                | c) Moderate- frequently present                    | 2             |
|                                | d) Severe- Almost present, disturbing routine work | 3             |

|  |  |   |
|--|--|---|
| 5) Vishushka bhava<br>(dryness feeling)                                | a) Absent-no feeling of vishushka bhava<br>(dryness)         | 0 |
|  | b) Mild- occasionally present and mild feeling<br>of dryness | 1 |
|  | c) Moderate- frequently present                              | 2 |
|  | d) Severe- Almost present, disturbing routine<br>work        | 3 |
| 6) Shishirasruta   | a) Absent – no shishirasruta                                 | 0 |
|  | b) Mild- occasionally present                                | 1 |
|  | c) Moderate- frequently present.                             | 2 |
|  | d) Severe - Almost present, disturbing routine<br>work       | 3 |
| 7) Acchasruta (clean/watery<br>discharge)                              | a) Absent- not present                                       | 0 |
|  | b) Mild- occasionally present                                | 1 |
|  | c) Moderate-frequently present                               | 2 |
|  | d) Severe – almost present, disturbing routine<br>work       | 3 |
| 8) Alpa shopha (mild<br>chemosis)                                      | a) Absent- not present                                       | 0 |
|  | b) Mild – occasionally present                               | 1 |
|  | c) moderate- frequently present                              | 2 |
|  | d) severe- almost present, disturbing the routine<br>work    | 3 |
| 9) Jantunam iva sarpanam   | a) Absent-not present  | 0 |
|  | b)Mild -occasionally present                                 | 1 |
|  | c) Moderate- frequently present                              | 2 |
|  | d) Severe -almost present, disturbing the<br>routine work    | 3 |
| 10)<br>Nimeshonmeshana<br>Krichchata. (difficulty in lid<br>movements) | a) Absent- not present                                       | 0 |
|  | b) Mild -occasionally present                                | 1 |
|  | c) Moderate- frequently present                              | 2 |
|  | d) Severe -almost present, disturbing the<br>routine work    | 3 |
| 11) Akshyadhamana iva<br>Bhati (feeling of distended                   | a) Absent- not present                                       | 0 |



|                                      |   |   |
|--------------------------------------|---|---|
| eyes.)                               | b) Mild -occasionally present                           | 1 |
|                                      | c) Moderate- frequently present                         | 2 |
|                                      | d) Severe- almost present, disturbing the routine work  | 3 |
| 12) Shushaka dushika (dry discharge) | a) Absent- not present                                  | 0 |
|                                      | b) Mild- occasionally present                           | 1 |
|                                      | c) Moderate- frequently present                         | 2 |
|                                      | d) Severe -almost present, disturbing the routine work  | 3 |
| 13) Alpa dushika(scanty discharge)   | a) Absent- not present                                  | 0 |
|                                      | b) Mild- occasionally present                           | 1 |
|                                      | c) Moderate- frequently present                         | 2 |
|                                      | d) Severe- almost present, disturbing the routine work  | 3 |
| 14) Chala ruja                       | a) Absent- not present                                  | 0 |
|                                      | b) Mild- occasionally present                           | 1 |
|                                      | c) Moderate- frequently present                         | 2 |
|                                      | d) Severe- almost present, disturbing the routine work  | 3 |
| 15) Ragata                           | a) Absent- not present                                  | 0 |
|                                      | b) Mild- occasionally present                           | 1 |
|                                      | c) Moderate- frequently present                         | 2 |
|                                      | d) Severe - almost present, disturbing the routine work | 3 |
| 16) Kandu (itching)                  | a) Absent- not present                                  | 0 |
|                                      | b) Mild- occasionally present                           | 1 |
|                                      | c) Moderate- frequently present                         | 2 |
|                                      | d) Severe - almost present, disturbing the routine work | 3 |

## OBSERVATION AND RESULT

Observations and Result of drug standardisation

The samples were analysed for the following parameter-

| Name of the Test | Erandmoola kashyaya | Triphala kashaya |
|------------------|---------------------|------------------|
| Shabda           | Not applicable      | Not applicable   |
| Sparsha          | Not specific        | Not specific     |
| Roopa            | Brown               | Greenish yellow  |

|                  |               |               |
|------------------|---------------|---------------|
| Rasa             | Tikta, kashay | Kashayamla    |
| Gandha           | Tiktagandha   | Kashayagandha |
| Specific gravity | 1.01233       | 1.02020       |
| Dissolved solids | 3.2065        | 5.2524        |
| pH               | 7             | 6             |
| Extractive value | 2.788         | 10.938        |

- Standardisation of these two drugs namely Eranda moola kashaya and Triphala kashaya has been done for the first time.
- Reference is not present in API.

### Statistical observations and result

Following observations were done irrespective of age, gender, religion, economical status, family history of allergy with Vataja abhishyanda and also on the basis of change in the symptoms of patients.

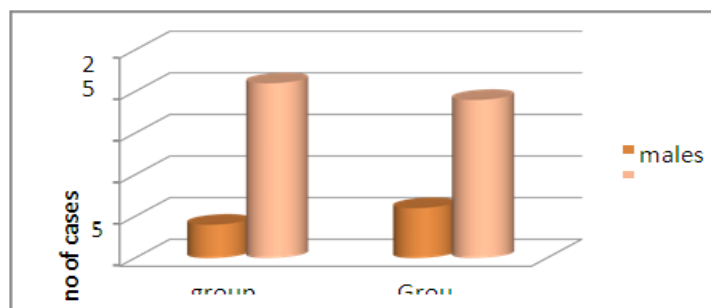
Following observation were done according to –

Group A –25 patients were treated with Eranda moola kashaya Parisheka. Group B –25 patients were treated with Triphala kashaya Parisheka.

### GENDER WISE DISTRIBUTION

| Gender  | Group A | Group B | Total | Percentage |
|---------|---------|---------|-------|------------|
| Males   | 4       | 6       | 10    | 20%        |
| Females | 21      | 19      | 40    | 80%        |
| Total   | 25      | 25      | 50    | 100%       |

**Interpretation** - Out of 50 patients, 10(20%) were Males and



### SYMPTOM WISE ANALYSED DESCRIPTION

1) Wilcoxon Signed Rank test result for symptom Toda-

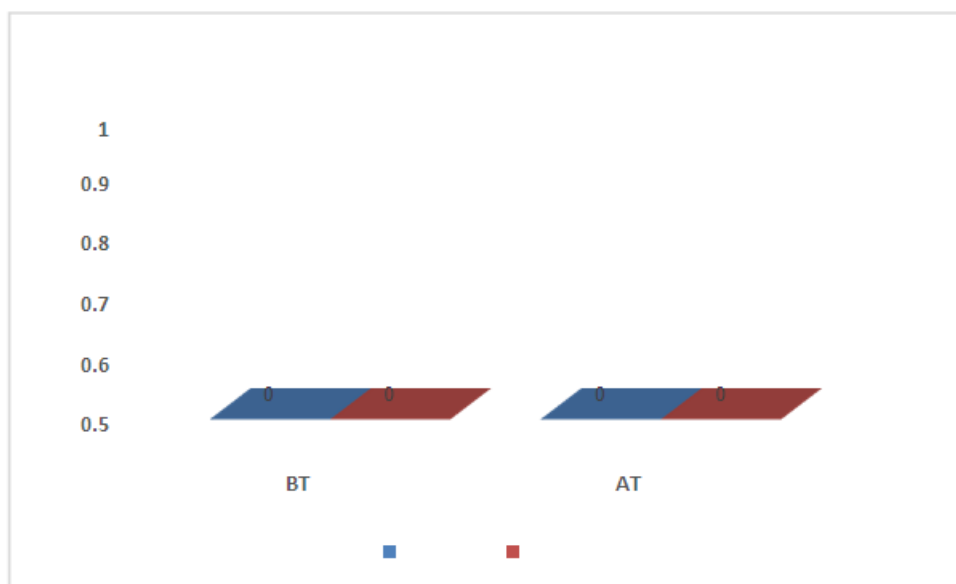
| Toda    | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result      |
|---------|--------|----|------------------------|---------|----------|-------------|
|         | BT     | AT |                        |         |          |             |
| Group A | 0      | 0  | -3.025 <sup>a</sup>    | 0.002   | 93.3     | Significant |
| Group B | 0      | 0  | -3.071 <sup>a</sup>    | 0.002   | 100.0    | Significant |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation** - Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are  $< 0.05$  hence we conclude that effect observed in both groups are Significant.



2) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Stambha

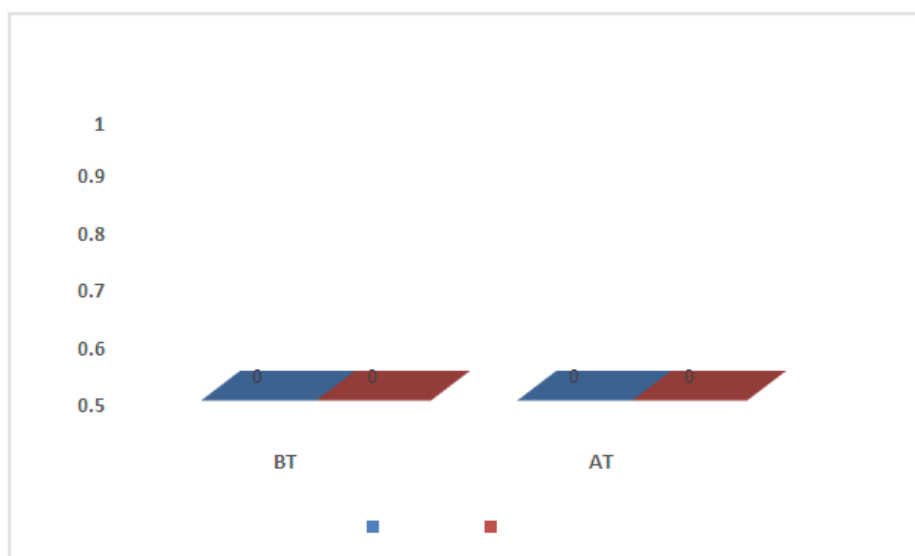
| Stambha | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result |
|---------|--------|----|------------------------|---------|----------|--------|
|         | BT     | AT |                        |         |          |        |
| Group A | 0      | 0  | -1.000 <sup>a</sup>    | 0.317   | NA       | NS     |
| Group B | 0      | 0  | -1.000 <sup>a</sup>    | 0.317   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation**- Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.



3) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Sangharsha

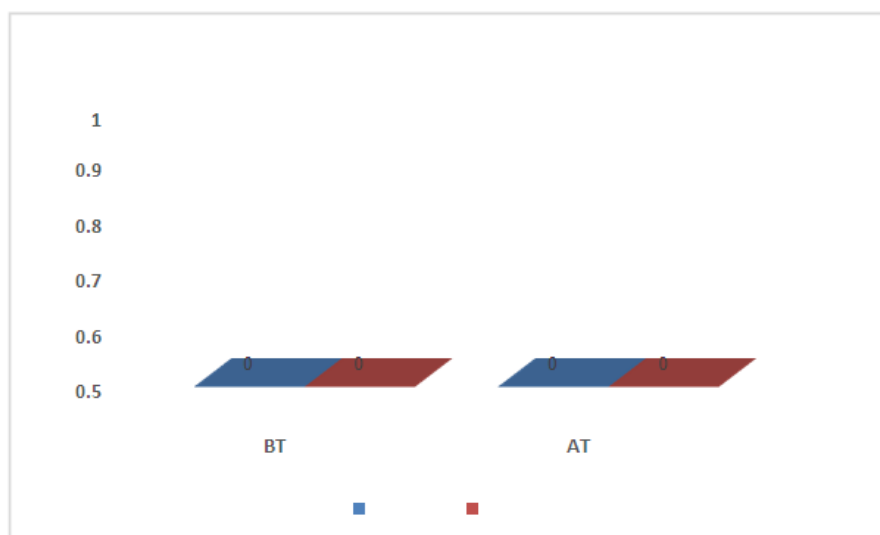
| Sangharsha | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result      |
|------------|--------|----|------------------------|---------|----------|-------------|
|            | BT     | AT |                        |         |          |             |
| Group A    | 0      | 0  | -2.271 <sup>a</sup>    | 0.023   | 62.5     | Significant |
| Group B    | 0      | 0  | -2.271 <sup>a</sup>    | 0.023   | 100.0    | Significant |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are less than 0.05 hence we conclude that effect observed in both groups are Significant.



- 4) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Parushya

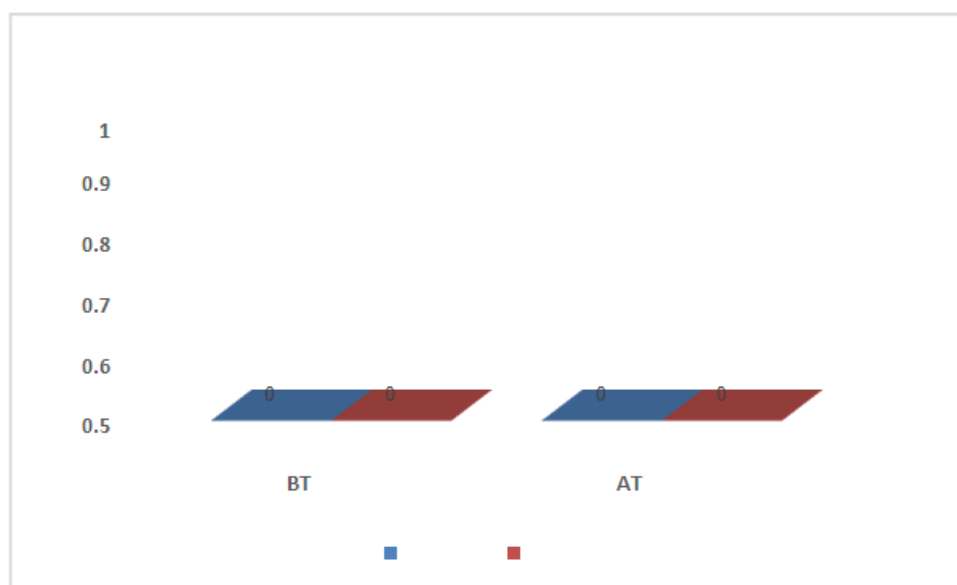
| Parushya | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result |
|----------|--------|----|------------------------|---------|----------|--------|
|          | BT     | AT |                        |         |          |        |
| Group A  | 0      | 0  | -.577 <sup>a</sup>     | 0.564   | NA       | NS     |
| Group B  | 0      | 0  | -1.000 <sup>a</sup>    | 0.317   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p Values for Group A and Group B are  $> 0.05$  hence we conclude that effect observed in both groups are not significant.



- 5) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Vishushka Bhava

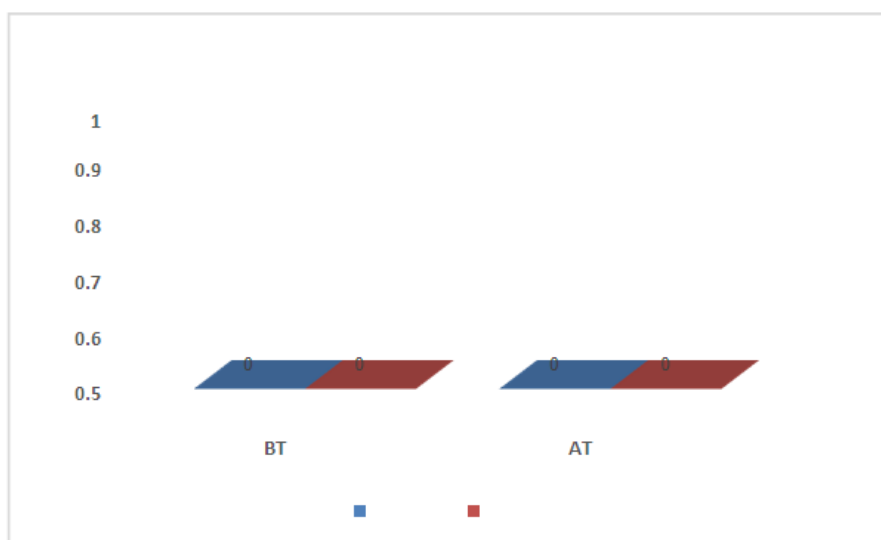
| Vishushka Bhava | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result |
|-----------------|--------|----|------------------------|---------|----------|--------|
|                 | BT     | AT |                        |         |          |        |
| Group A         | 0      | 0  | -1.000 <sup>a</sup>    | 0.317   | NA       | NS     |
| Group B         | 0      | 0  | -1.342 <sup>a</sup>    | 0.180   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that P-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.



6) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Shishirasruta.

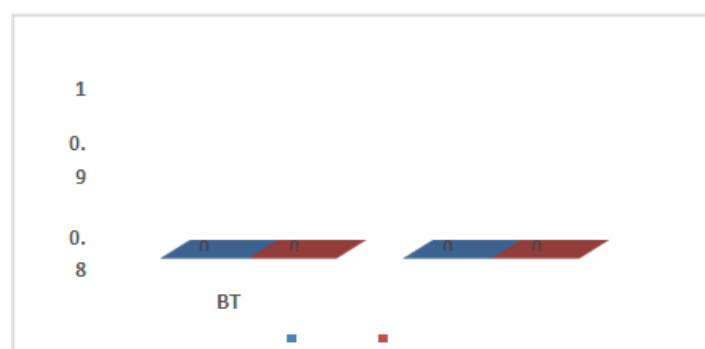
| Shishirasruta | Median |    | Wilcoxon             | p-Value | % Effect | Result |
|---------------|--------|----|----------------------|---------|----------|--------|
|               | BT     | AT |                      |         |          |        |
|               |        |    | <b>Signed Rank W</b> |         |          |        |
| Group A       | 0      | 0  | .000 <sup>b</sup>    | 1.000   | NA       | NS     |
| Group B       | 0      | 0  | .000 <sup>b</sup>    | 1.000   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that P-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.



- 7) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Acchasaruta.

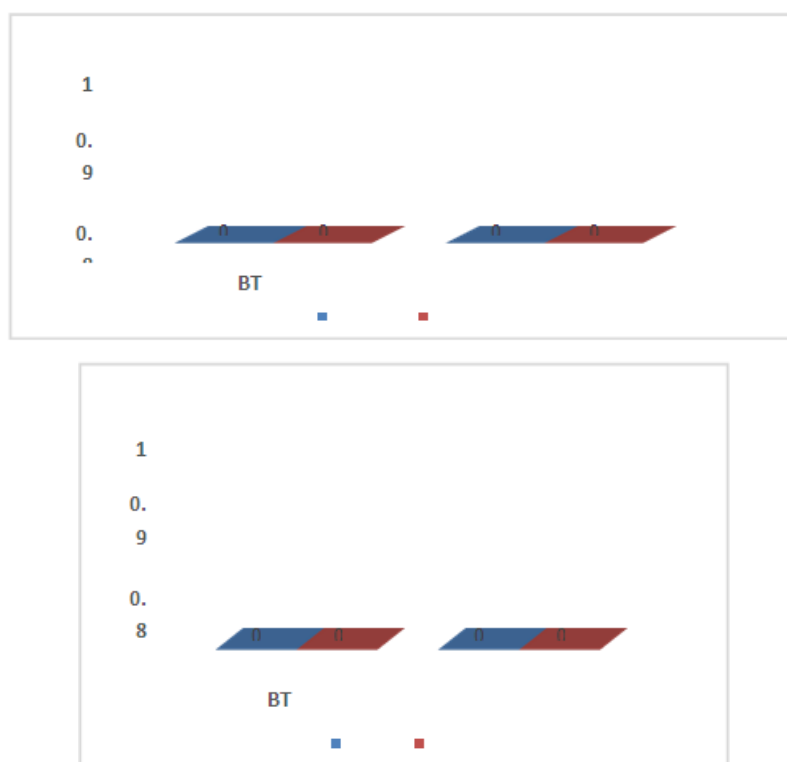
| Acchasaruta | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result      |
|-------------|--------|----|------------------------|---------|----------|-------------|
|             | BT     | AT |                        |         |          |             |
| Group A     | 0      | 0  | -2.762 <sup>a</sup>    | 0.006   | 66.7     | Significant |
| Group B     | 0      | 0  | -3.066 <sup>a</sup>    | 0.002   | 84.0     | Significant |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that P-Values for Group A and Group B are less than 0.05 hence we conclude that effect observed in both groups are Significant.



- 8) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Alpa Shopha.

| Alpa Shopha | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result |
|-------------|--------|----|------------------------|---------|----------|--------|
|             | BT     | AT |                        |         |          |        |
| Group A     | 0      | 0  | -1.414 <sup>a</sup>    | 0.157   | NA       | NS     |
| Group B     | 0      | 0  | -1.000 <sup>a</sup>    | 0.317   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that P-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.

9) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Jantunam iva sarpanama.

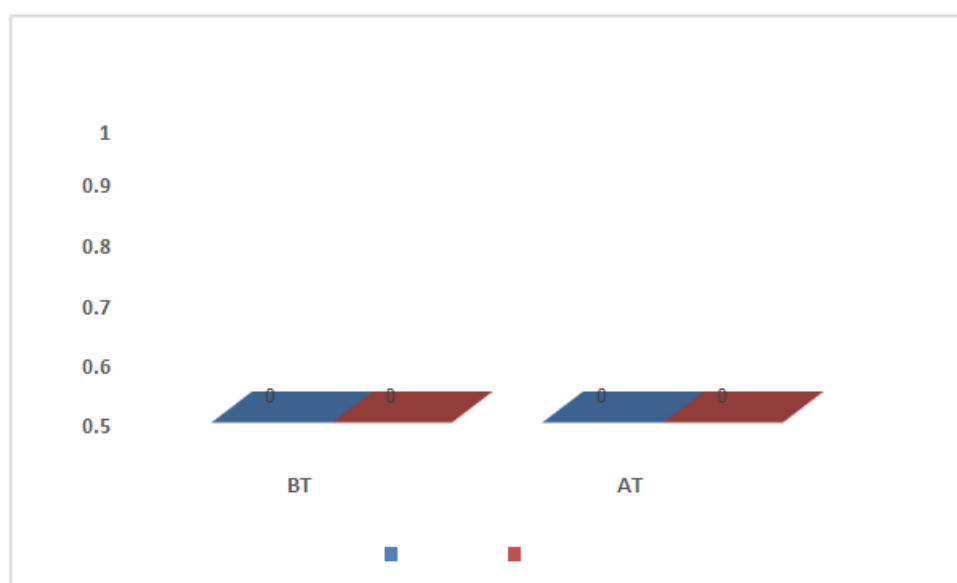
| Jantunam iva sarpanama | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result |
|------------------------|--------|----|------------------------|---------|----------|--------|
|                        | BT     | AT |                        |         |          |        |
| Group A                | 0      | 0  | .000 <sup>b</sup>      | 1.000   | NA       | NS     |
| Group B                | 0      | 0  | .000 <sup>b</sup>      | 1.000   | NA       | NS     |

**Notation** – BT = Before treatment

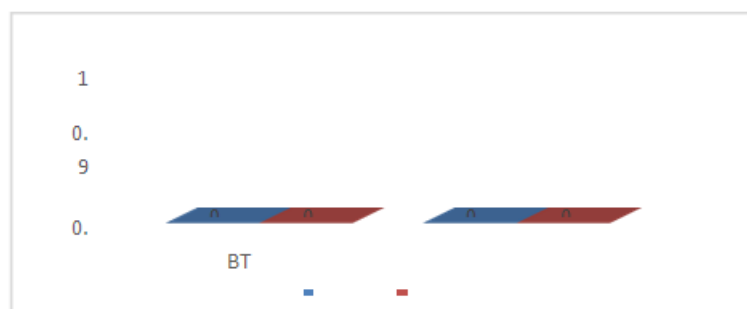
AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.







10) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Nimeshonmeshana Kricchata.

| Nimeshonmeshana Kricchata | Median |    | Wilcoxon Signed Rank W | P-Value | % Effect | Result |
|---------------------------|--------|----|------------------------|---------|----------|--------|
|                           | BT     | AT |                        |         |          |        |
| Group A                   | 0      | 0  | -1.342 <sup>a</sup>    | 0.180   | NA       | NS     |
| Group B                   | 0      | 0  | -1.342 <sup>a</sup>    | 0.180   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that P-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.

11) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Akshyadhaman

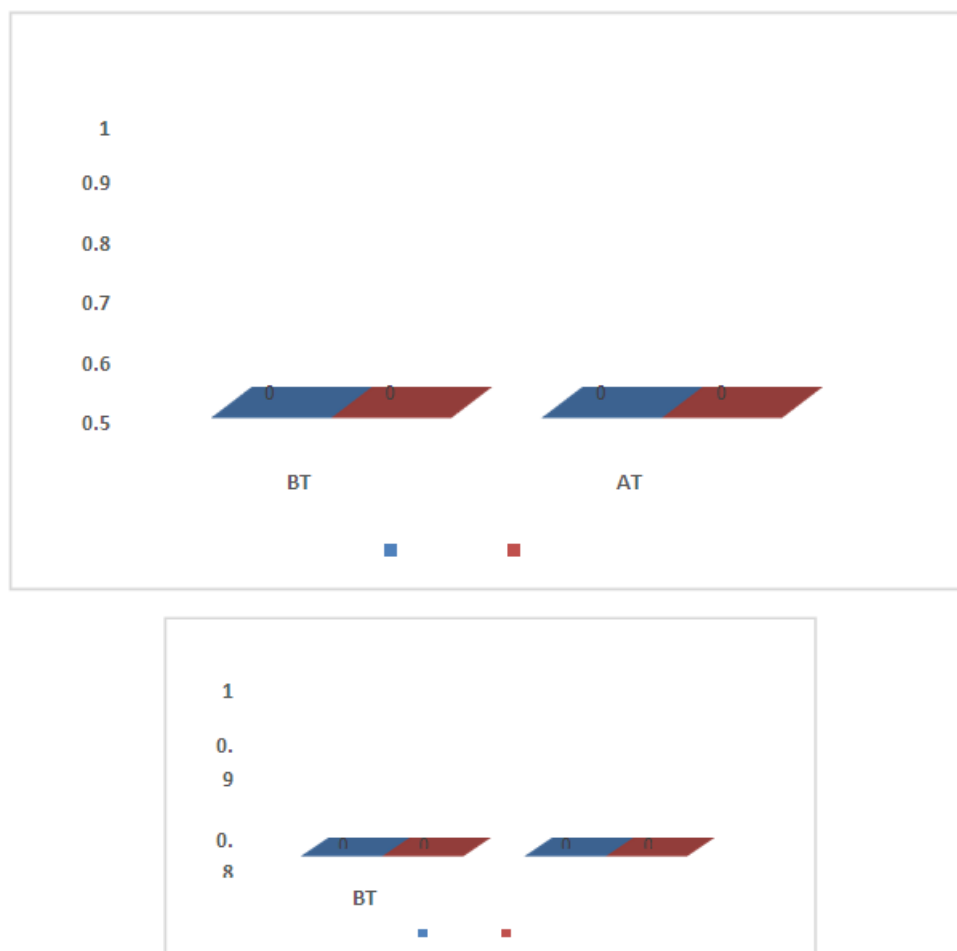
| Akshyadhaman | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result |
|--------------|--------|----|------------------------|---------|----------|--------|
|              | BT     | AT |                        |         |          |        |
| Group A      | 0      | 0  | .000 <sup>b</sup>      | 1.000   | NA       | NS     |
| Group B      | 0      | 0  | .000 <sup>b</sup>      | 1.000   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.



12) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Shushaka Dushika

| Shushaka Dushika | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result |
|------------------|--------|----|------------------------|---------|----------|--------|
|                  | BT     | AT |                        |         |          |        |
| Group A          | 0      | 0  | .000 <sup>b</sup>      | 1.000   | NA       | NS     |
| Group B          | 0      | 0  | .000 <sup>b</sup>      | 1.000   | NA       | NS     |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are greater than 0.05 hence we conclude that effect observed in both groups are not Significant.

13) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Alpa Dushika

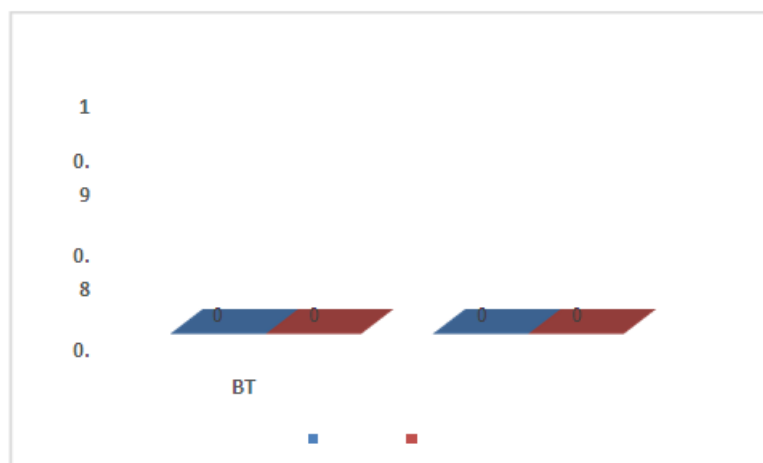
| Alpa Dushika | Median |    | Wilcoxon Signed Rank W | P-Value | % Effect | Result      |
|--------------|--------|----|------------------------|---------|----------|-------------|
|              | BT     | AT |                        |         |          |             |
| Group A      | 0      | 0  | -2.060 <sup>a</sup>    | 0.039   | 80.0     | Significant |
| Group B      | 0      | 0  | -1.633 <sup>a</sup>    | 0.102   | NA       | NS          |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Value for Group A is less than 0.05 and Group B is greater than 0.05 hence we conclude that effect observed in Group A is significant while Group B is not significant.



14) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Chala Ruja

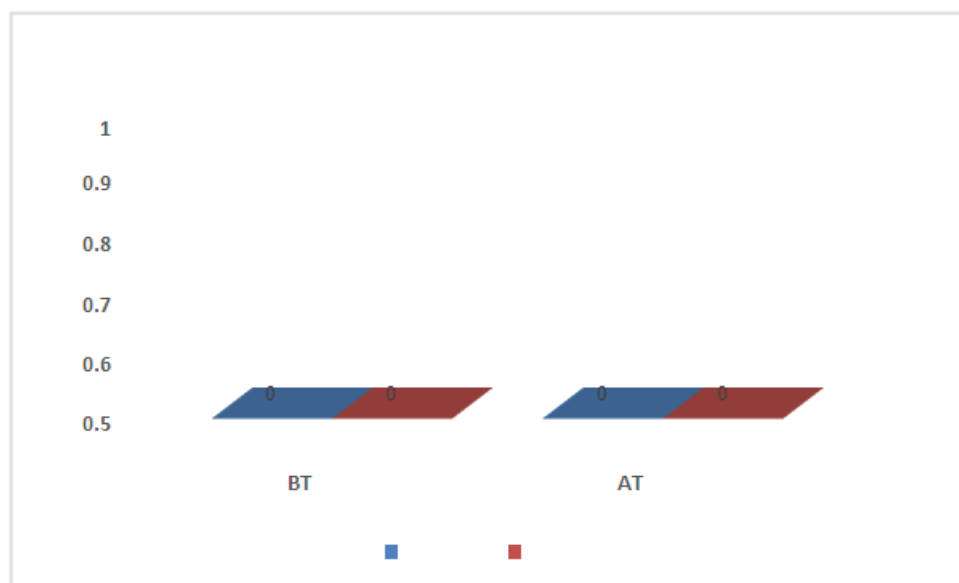
| Chala Ruja | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result      |
|------------|--------|----|------------------------|---------|----------|-------------|
|            | BT     | AT |                        |         |          |             |
| Group A    | 0      | 0  | -2.810 <sup>a</sup>    | 0.005   | 84.6     | Significant |
| Group B    | 0      | 0  | -1.633 <sup>a</sup>    | 0.102   | NA       | NS          |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that P-Value for Group A is less than 0.05 and Group B is greater than 0.05 hence we conclude that effect observed in Group A is significant while Group B is not significant.



15) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Ragata

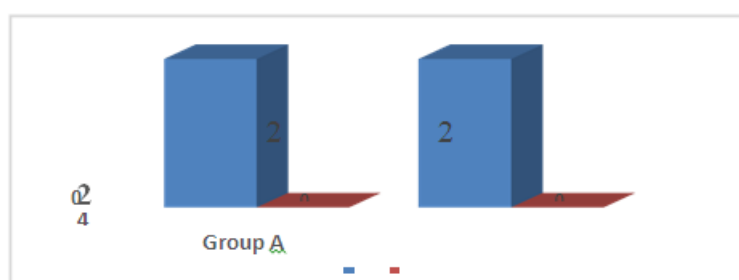
| Ragata  | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result      |
|---------|--------|----|------------------------|---------|----------|-------------|
|         | BT     | AT |                        |         |          |             |
| Group A | 2      | 0  | -4.021 <sup>a</sup>    | 0.000   | 75.0     | Significant |
| Group B | 2      | 0  | -4.272 <sup>a</sup>    | 0.000   | 89.6     | Significant |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are less than 0.05 hence we conclude that effect observed in both groups are Significant.



16) Wilcoxon Signed Rank test result for comparison of Group A and Group B for symptom Kandu

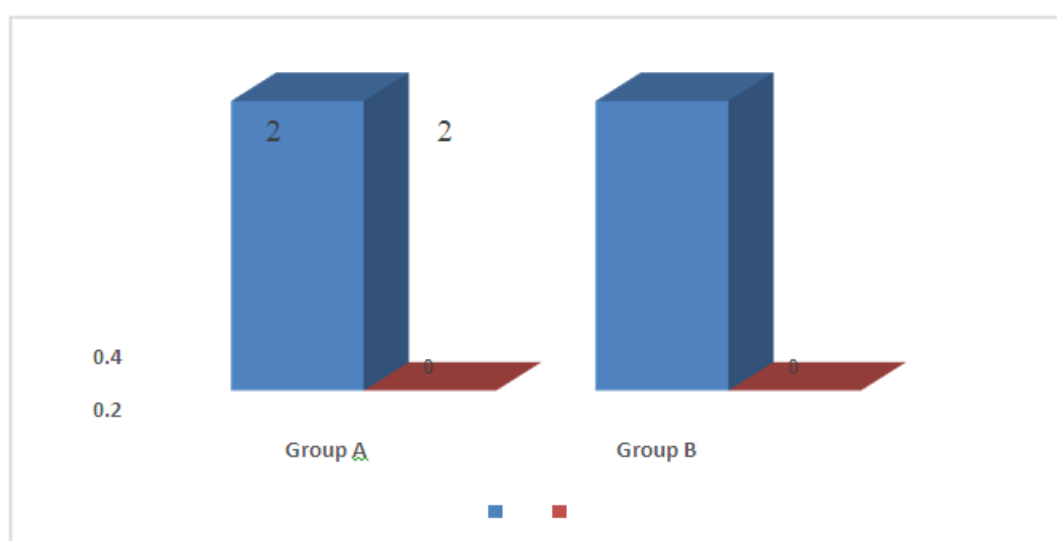
| Kandu   | Median |    | Wilcoxon Signed Rank W | p-Value | % Effect | Result      |
|---------|--------|----|------------------------|---------|----------|-------------|
|         | BT     | AT |                        |         |          |             |
| Group A | 2      | 0  | -3.888 <sup>a</sup>    | 0.000   | 76.6     | Significant |
| Group B | 2      | 0  | -3.561 <sup>a</sup>    | 0.000   | 81.6     | Significant |

**Notation** –BT = Before treatment

AT = After treatment

**Interpretation-** Since observations are on ordinal scale, we have used Wilcoxon Signed Rank Test.

From above table we can observe that p-Values for Group A and Group B are less than 0.05 hence we conclude that effect observed in both groups are Significant.



## DISCUSSION

The most important part of any clinical trial is the discussion, where in all the actual facts are presented in a combined format. It is nothing but the logical reasoning of observation. If all the points are discussed with proper reasoning, then they help to draw proper conclusion.

## Selection of Topic

Today we are living in a highly polluted environment due to the development of the industries. This has caused the effect on our lifestyle and dietary habits. Vataja Abhishyanda is one of the out come of this changing food habits, lifestyle and polluted environment. It is the commonest defect affecting the eyes leading to functional disturbances and even account

to impairment of vision if cornea is involved. Many of the patients are seen in the routine Shalakya Tantra O.P.D suffering from Vataja Abhishyanda.

### **Selection of Disease**

Abhishyanda is one of the Sarvagata netra rogas. It is one of the most common eye problems. It has a major incidence worldwide and is very common in both developed and developing countries. It affects all agegroups and both genders.

### **Selection of Drug**

In Ayurveda, Aushadha chikitsa (drug therapy) is given more importance. Among the various formulations prescribed for the treatment of Vataja Abhishyanda by different Acharyas, Eranda moola Kashaya Parisheka and Triphala Kashaya Parisheka is described in Ashtang Sangraha and Sharangdhara Samhita. All the drugs are having Vata Shamaka and Tridoshanashaka effect. Moreover all the drugs are known for chakshushya guna, anti inflammatory activity and easily available in the market.

The drugs described in modern medicine have some limitations and adverse effects like the Systemic antihistaminic drug often relieve ocular allergic symptoms, patients may experience systemic adverse effects such as drowsiness and dry mouth. Topical antihistamine competitively and reversibly block histamine receptors and relieve itching and redness but only for short time. The other drugs mentioned in modern medicine have some adverse effects and limitations.

Hence to overcome this, a prompt and systematic search was made to establish an appropriate medicine to give relief from the disease without any adverse reactions. With this objective a clinical study has been carried out by a classical reference with the topic. "Comparative study of efficacy of Eranda moola kashaya Parisheka and Triphala kashaya Parisheka in the management of Vataja abhishyanda (Simple allergic conjunctivitis)."

### **DISCUSSION ON RESULT**

According to Wilcoxon Signed Ranks Test symptoms were given score before and after treatment and were assessed statistically to see the significance.

## Wilcoxon Signed Rank Test result

| Sr no | Sign & Symptoms  | %Effect                               |  | p- value                              |  | Significant/NotSignificant             |  |
|-------|--|---------------------------------------|--|---------------------------------------|--|--|--|
|       |  | GroupA Eranda moola kashaya parisheka | GroupB Triphalamoola kashaya parisheka | GroupA Erandamoola kashaya parish eka | GroupB Triphala moola kashaya parishe ka | Group A Eranda moola kashaya parisheka | Group B Triphala moola kashaya parisheka |
| 1     | Toda (prickingpain)                                      | 93.3%                                 | 100%                                   | 0.002                                 | 0.002                                    | <b>Significant</b>                     | <b>Significant</b>                       |
| 2     | Stambha (stiffnessof lids)                               | Not applicable                        | Not applicable                         | 0.317                                 | 0.317                                    | Not Significant                        | Not Significant                          |
| 3     | Sangharsha (F.B sensation.)                              | 62.5%                                 | 100%                                   | 0.023                                 | 0.023                                    | <b>Significant</b>                     | <b>Significant</b>                       |
| 4     | Parushya (dryness sign)                                  | Not applicable                        | Not applicable                         | 0.564                                 | 0.317                                    | Not Significant                        | Not Significant                          |
| 5     | Vishushkabhava (dryness feeling)                         | Not applicable                        | Not applicable                         | 0.317                                 | 0.180                                    | Not Significant                        | Not Significant                          |
| 6     | Shishirasruta  | Not applicable                        | Not applicable                         | 1.000                                 | 1.000                                    | Not Significant                        | Not Significant                          |
| 7     | Acchasrut a (clean/watery discharge)                     | 66.7%                                 | 84%                                    | 0.006                                 | 0.002                                    | <b>Significant</b>                     | <b>Significant</b>                       |
| 8     | Alpa shopha(mild chemosis)                               | Not applicable                        | Not applicable                         | 0.157                                 | 0.317                                    | Not Significant                        | Not Significant                          |
| 9     | Jantunamiva sarpanam                                     | Not applicable                        | Not applicable                         | 1.000                                 | 1.000                                    | Not Significant                        | Not Significant                          |
| 10    | Nimeshonmeshana Krichchata. (difficultyin lid movements) | Not applicable                        | Not applicable                         | 0.180                                 | 0.180                                    | Not Significant                        | Not Significant                          |
| 11    | Akshyadh amanaiva Bhati (feeling of distended eyes.)     | Not applicable                        | Not applicable                         | 1.000                                 | 1.000                                    | Not Significant                        | Not Significant                          |
| 12    | Shushaka dushika (dry dishcharge)                        | Not applicable                        | Not applicable                         | 1.000                                 | 1.000                                    | Not Significant                        | Not Significant                          |
| 13    | Alpa dushika(scanty discharge)                           | 80%                                   | Not applicable                         | 0.039                                 | 0.102                                    | Significant                            | Not Significant                          |
| 14    | Chala ruja   | 84.6%                                 | Not applicable                         | 0.005                                 | 0.102                                    | Significant                            | Not Significant                          |
| 15    | Ragata   | 75.00%                                | 89.65%                                 | 0.000                                 | 0.000                                    | Significant                            | Significant                              |
| 16    | Kandu (itching)  | 76.6%                                 | 81.6%                                  | 0.000                                 | 0.000                                    | Significant                            | Significant                              |

According to Wilcoxon Singed Ranks Test the p value for the sign andsymptoms seen in the Vataja Abhishyanda is <0.05.

- By statistical analysis, it is concluded that Eranda moola kashayashows significant result in Toda, Sangharsha, Acchasruta, Alpa dushika, Chala ruja, Ragata, Kandu.
- Triphala Kashaya Parisheka shows significant result in Toda, Sangharsha, Acchasruta, Ragata, Kandu.
- Eranda moola kashaya is not significant in Stambha, Parushya, Vishushka bhava, Shishirasruta, Alpa shopha, Jantunam iva sarpanam, Nimeshonmeshana krichchata, Akshyadhamana iva bhati, Shushaka dushika.
- Triphala kashaya Parisheka is not significant in Stambha, Parushya, Vishushka bhava,

Shishirasruta, Alpa shopha, Jantunam iva sarpanam, Nimeshonmeshana krichchata, Akshyadhamana iva bhati, Shushaka dushika, Alpa dushika, Chala ruja.

- Both the Group A (Eranda moola kashaya) and Group B (TriphalaKashaya) are equally effective on Vataja Abhishyanda.

### Mechanism of action of Parisheka on Vataja Abhishyanda

Administration of Parisheka on the Kaneeneka sandhi and on closed eyelid.



Erandamoola kashaya and Triphala Kashaya absorbs through the caruncle, fornix, conjunctiva and the skin of eyelid which are highly vascular. It also spreads to the deeper tissues through Siras, Strotas and Sandhis.



Eranda moola having the properties like Vata shamaka and Triphala like Tridosha nashaka.



These reduce inflammation, congestion and causes vasodilatation.

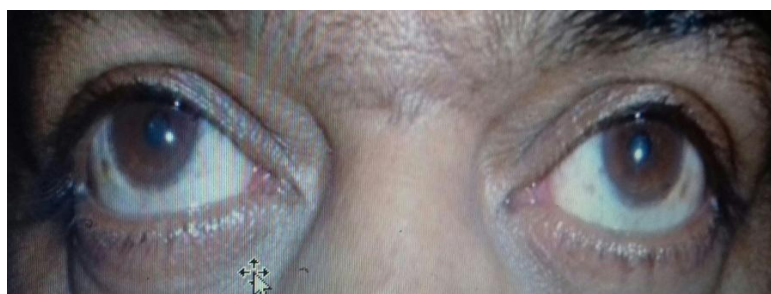


This causes decrease in sign and symptoms of Vataja Abhishyanda.

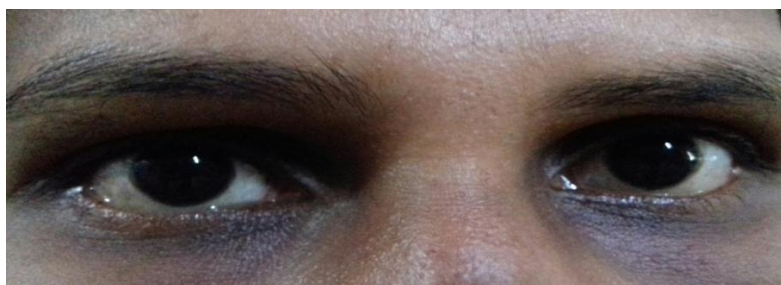
### Before treatment of Eranda moola kashaya Parisheka



### After treatment of Eranda moola kashaya Parisheka





**Before treatment of Triphala kashaya Parisheka****After treatment of Triphala kashaya Parisheka****SUMMARY**

The present clinical study “Comparative study of efficacy of Eranda moola kashaya Parisheka and Triphala kashaya Parisheka in the management of Vataja abhishyanda (Simple allergic conjunctivitis)” was carried out with comprise of following chapters.

**1. Introduction**

In this chapter Importance of topic, Selection of topic, Need of study has been described.

**2. Aim and objectives**

In this chapter „aims“ or finally what is to be achieved and „objects“ or path to reach target of aim is mentioned.

**3. Literary review**

Literary review is mainly subdivided into 3 parts:

**I) Ayurvedic Review**

It includes, ayurvedic Netrasharir-kriya and sharir-Rachana. Nirukti, Vyakhya, Types of Vataja Abhishyanda, Samprapti of Vataja Abhishyada, Treatment of Vataja Abhishyada. Also it includes the references from various Samhitas.

## II) Modern Review

It mainly includes brief anatomy and physiology of eye. Definition, causes, types, treatment of Simple Allergic Conjunctivitis.

## III) Drug Review

It includes detail information about the Eranda, Amalaki, Haritaki, Bibhitaki.

## 4. Materials and methods

This chapter includes literary materials, Clinical materials, Research methodology, Inclusion and Exclusion criteria, Withdrawal criteria and Assessment Criteria of study.

## 5. Observation and results

In this chapter observations made on Agewise distribution, Genderwise distribution and symptomwise distribution are explained in tabular as well as graphical representation. Also the statistical analysis of the data with the results obtained is mentioned.

## 6. Discussion

In this chapter discussion on disease, discussion on drug and discussion on result is mentioned.

## 7. Summary

In this chapter contents of all chapters are given.

## 8. Conclusion

It includes conclusion from entire research study.

## 9. Bibliography

In this chapter books referred with name of author, publication, and year and edition are given.

## 10. Annexure

In this chapter all documents like Research proforma, Informed consent form, master charts, abbreviations, authentication and drug analysis certificates, etc. are given.

## CONCLUSION

Eranda moola kashaya Parisheka once in a day for 5 days is not more effective than Triphala kashaya Parisheka in Vataja abhishyanda. By statistical analysis, it was proved that Eranda

moola and Triphala Kashyaya Parisheka is equally effective in Vataja Abhishyanda. Vataja abhishyanda is correlated with Simple allergic conjunctivitis. Parisheka is a simple procedure and can be practiced in opd Eranda moola and Triphala is proved to be cost effective, safe and better drug. No adverse effects were found with Eranda moola kashaya and Triphala Kashaya Parisheka. Result-To assess the efficacy of treatment and percentage relief were made with in the sample population for clinical criterion. The result has made clinical criterion, using Wilcoxon Signed Rank test.