



# A SINGLE ARM OPEN LABELLED CLINICAL STUDY TO EVALUATE THE EFFICACY OF ASHWATTHA TWAK KWATHA YONIDHAVANA IN THE MANAGEMENT OF YONIGATA SHWETASTRAVA

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## Abstract

The present clinical study was conducted to evaluate the efficacy of Ashwattha Twak Kwatha Yonidhavana in the management of Yonigata Shwetastrava (Leucorrhoea). A total of 20 patients presenting with classical symptoms of Yonigata Shwetastrava such as excessive vaginal discharge, itching, and local discomfort were selected for the study. The intervention involved Yonidhavana (vaginal douche) with Ashwattha Twak Kwatha for 7 days after menses for 3 consecutive cycles. Assessment was made before and after the treatment based on parameters like strava pramana, kandu, gandha, cervical erosion and backache.

The results demonstrated a significant improvement in the clinical features after the treatment period. Most patients showed complete or marked relief from discharge and itching, indicating the effectiveness of Ashwattha Twak Kwatha Yonidhavana in reducing local infection, inflammation, and excessive secretion. Statistical analysis confirmed that the improvement observed was statistically significant ( $p < 0.05$ ).

The study supports that the kaphaghna, and yonishodhana properties of Ashwattha Twak, which contribute to maintaining vaginal hygiene and normal physiological function. Thus, Ashwattha Twak Kwatha Yonidhavana can be considered an effective, safe, and economical local therapy for Yonigata Shwetastrava.

**Keywords:** Yonigata shwetastrava, Ashwattha twak kwath, yonidhavana, clinical study

## Introduction

Women's health has been a key concern in Ayurveda, with disorders of the reproductive tract described under the broad category of Yonivyapad. Among these, Yonigata Shweta Strava (excessive whitish vaginal discharge) is a common condition. It is referred to in the classics as Shweta Pradara, where shweta signifies white and pradara means abnormal or excessive discharge. Acharya Charaka explains Pradara as a result of Kapha vitiation in association with Apana Vata [1]. Similarly, Acharya Sushruta describes the role of aggravated Kapha in producing slimy whitish discharge from the genital tract [2]. Kashyapa Samhita also highlights that faulty diet, poor hygiene, and lifestyle factors aggravate Kapha, leading to persistent vaginal discharge and subsequent debility [3].

In contemporary gynecology, Yonigata Shweta Strava may be compared to non-specific leucorrhoea, chronic cervicitis, or recurrent vaginal infections. Though not always pathological, studies indicate that vaginal discharge is one of the most frequently reported gynecological complaints, with prevalence estimates ranging from 30–40% among women of reproductive age [4]. Associated problems such as itching, backache, fatigue, and psychosocial distress often reduce quality of life.

Ayurvedic literature prescribes both internal and local treatment modalities for Yonivyapad. Among the local therapies, Yonidhavana (vaginal cleansing with medicated decoctions) has been specifically mentioned. Sushruta describes Yonidhavana as a method to cleanse the genital tract and eliminate aggravated doshas [5]. This therapy is understood to reduce excessive Kapha, relieve itching, burning, and discomfort, and restore the normal vaginal milieu.

Modern evidence also supports the role of vaginal douching in reducing microbial colonization, maintaining vaginal pH, and promoting epithelial healing [6]. Unlike synthetic antifungal or antibacterial agents, which may cause resistance or side effects, herbal formulations used in Yonidhavana are relatively safe, cost-effective, and holistic.

Therefore, evaluating the efficacy of Yonidhavana in the management of Yonigata Shweta Strava is highly relevant, as it validates the classical Ayurvedic wisdom and provides integrative options in women's health care.

## OBJECTIVES:

### PRIMARY OBJECTIVE:

To study the efficacy of Ashwattha valka kwath yonidhavan in the management of yonigat shwetastrav.

### SECONDARY OBJECTIVE:

1. To assess the efficacy of Ashwattha valka kwath yonidhavan in the management of yonigat shwetastrav
2. To study additional effects of Ashwattha valka if any
3. To study the adverse effects of Ashwattha valka kwath if any

## Ashwattha (पिंपळ)

पिप्पलो दुर्जरः शीतः पित्तश्लेष्मव्रणास्त्रजित् ।

गुरुस्तुवरको रूक्षो वर्ण्यो योनिविशोधनः ॥

- (भावप्रकाश निघंटु वटादि वर्ग/ 3) <sup>7</sup>

Bhavprakash has mentioned yonishodhana karma of Ashwattha.

- Rasa: Kashaya
- Virya: Sheeta
- Vipaka: Madhura
- Guna: Sheet, stambhak, vrananashak, mutrasangrahaniya, raktasangrahanak
- Doshaghnata- Kapha- pittaghna
- Karma: Kapha- pittahara, Vrana ropana, Raktastambhana, Shothahara, Varnya, stambhan.

## METHODOLOGY

20 patients suffering from Yonigata Shwetastrava were taken by diagnostic, inclusive and exclusive criteria from the study from Seth Tarachand Ramnath Ayurvedic Hospital. Permission from institutional ethics committee was taken before conduction of study. Each patient was selected after taking voluntary consent and Yonidhavan with Ashwattha twak kwatha was done for consecutive 7 days after nenses for 3 cycles.

The efficacy of the drug and treatment was assessed after assessing the criterias before and after treatment.

**Design:** Single arm, open label clinical study

### METHOD OF SELECTION OF PATIENT:

Diagnostic criteria:

- i. Patients having complaints of yonigat shwetastrav.
- ii. White discharge seen on per speculum examination.

Inclusion criteria:

- Age between 20- 45 years married female patients complaining of vaginal discharge.
- Patients having cervical erosion
- Patients complaining of pv white discharge with itching at vaginal area and staining of undergarments.

Exclusion criteria:

- Pregnant women
- Patients with sexually transmitted diseases
- Anaemia
- Diabetes mellitus
- Serology positive for HIV, HbSAg, VDRL
- Cervical/ vaginal/ endometrial malignancy
- Cervical polyp
- Procedentia

## INVESTIGATIONS

- Haematology- Haemogram, BSL-F, PP
- Serology- HIV, HbSAg, VDRL
- Urine- R

- Pap smear test

#### PHYSICAL EXAMINATION:

- Per speculum and per vaginal examination

#### STANDARD OPERATING PROCEDURE FOR YONIDHAWAN



**SITE (STHANA)-** Prathamavarta (Vagina)

**DURATION-** 7 days for 3 cycles

**TIME-** 5- 6 minutes Once daily in the morning

**QUANTITY OF KWATHA-** 1 litre

**MATERIAL-** Basti putaka (enema pot), douche cannula

#### PROCEDURE-

##### Purvakarma-

All aseptic measures were taken. After taking consent, patient was asked to void urine before procedure. Fresh Ashwattha twak kwatha was prepared.

##### Pradhankarma-

The patient was given lithotomy position. Enema pot filled with koshna kwatha was kept at height 6 feet from the ground. Douche cannula was inserted in vaginal opening and prathamavarta is washed with Ashwattha kwatha.

##### Pashchatkarma-

Patient was given supine position with flexed knees for 10 mins.

**Follow up-** Participant will be called daily for 7 days after menses for yonidhavana procedure for 3 consecutive cycles. The assessment was done according to the assessment criteria and statistical analysis was done.

**ASSESSMENT CRITERIA:**

According to the severity of disease, the following grades will be given

**1.YONI STRAVA PRAMANA/ PV WHITE DISCHARGE:**

<u>PRAMAN</u>	<u>GRADE/SCORE</u>
Absent	0
Mild & occasional	1
Feeling of moisture over vulval region which makes uncomfortable/Moderate	2
Need to change Undergarment/Severe	3

**2.YONIKANDU / ITCHING/ PRURITUS:**

<u>INTERPRETATION</u>	<u>GRADE/SCORE</u>
Absent	0
Occasional/Mild	1
Unbearable/Severe	2

**3.GANDHA**

<u>STRAV GANDHA</u>	<u>GRADE</u>
Present	1
Absent	0

**4. LOWER ABDOMINAL PAIN**

<u>INTERPRETATION</u>	<u>GRADE</u>
Present	1
Absent	0

**5. CERVICAL EROSION**

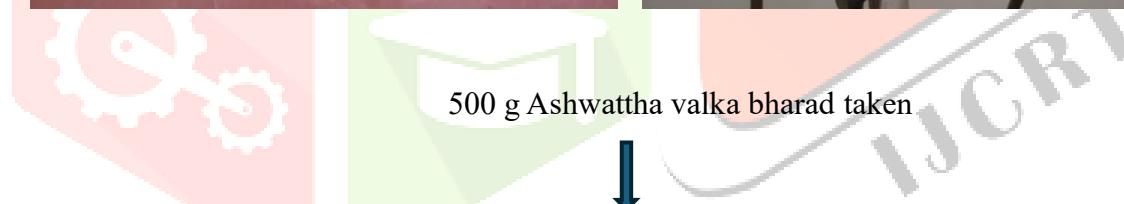
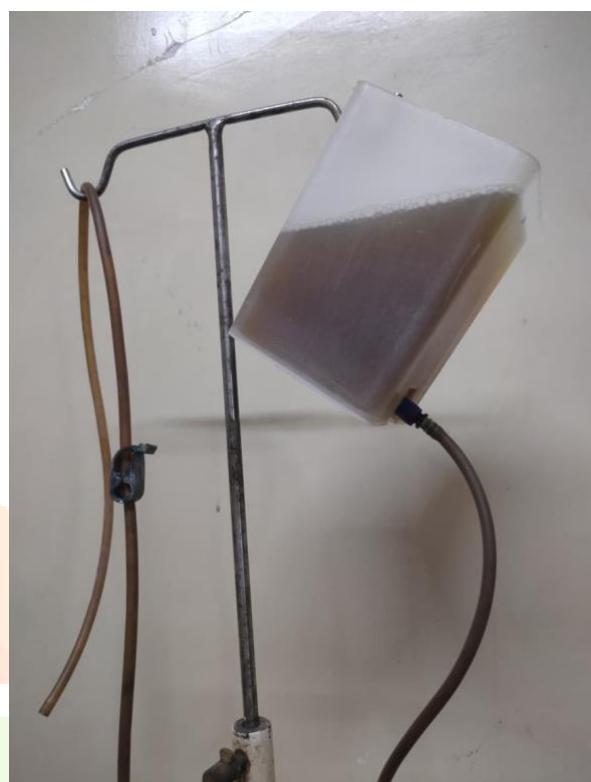
<u>INTERPRETATION</u>	<u>GRADE</u>
Present	1
Absent	0

**Kwatha:**

पानीयं षोडशागुणं क्षुण्णे द्रव्यपले क्षिपेत्।

मृत्यात्रे क्वाथयेद् ग्राह्यमष्टभागावशेषितम्॥

-(शारंगधर संहिता मध्यम खंड 2/1-2) <sup>8</sup>

**Preparation of Ashwattha twak kwath:**

16 parts of Potable water i.e. 8 litres and subjected to heat on low temperature, until the volume gets reduced to 1/8th of its initial quantity i.e. 1 litre according to Sharangdhar samhita.



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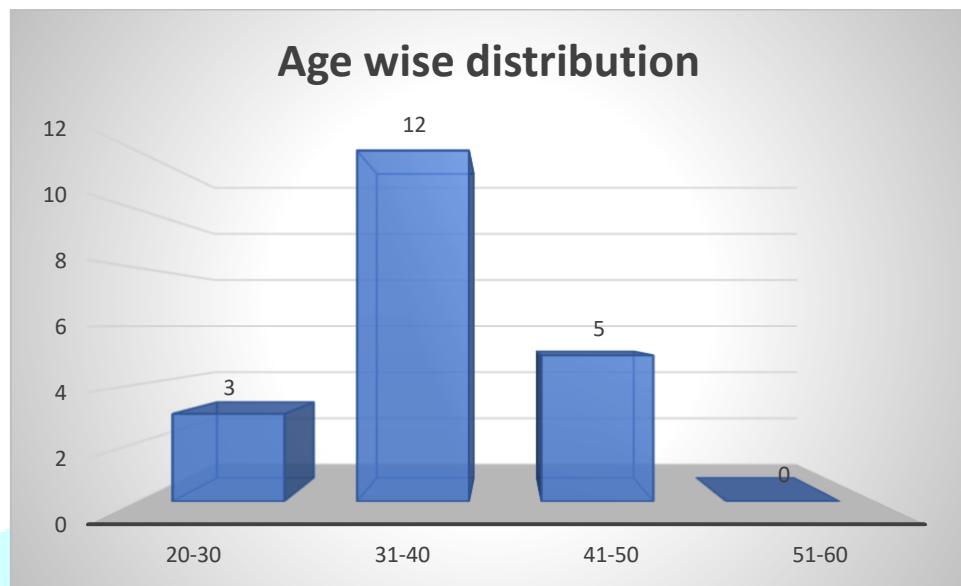


The filtrate is taken into utilization for Yonidhavana.

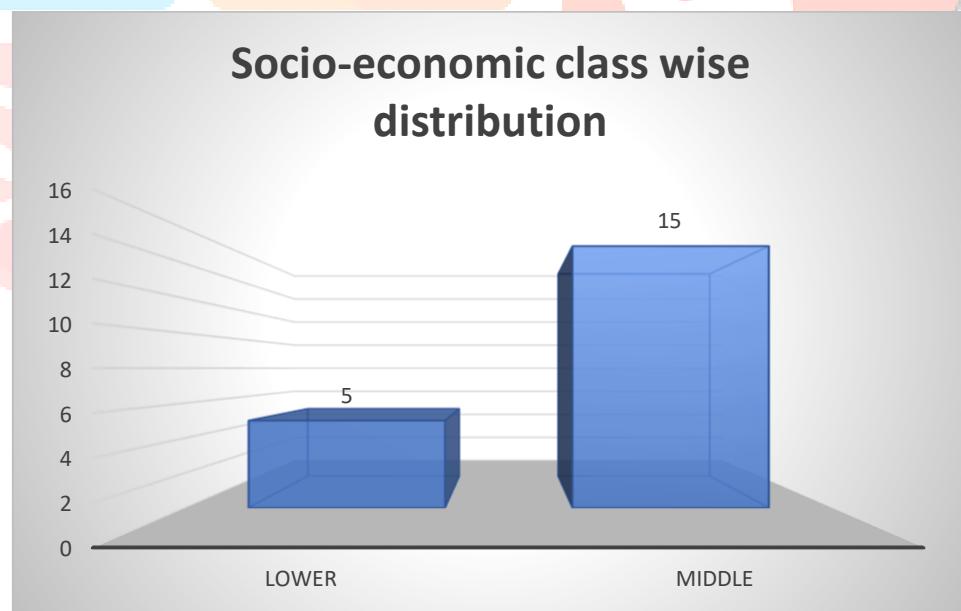
## Observations and Results

Total 20 patients were registered in this study. All 20 patients were studied and their observations were recorded as follow:

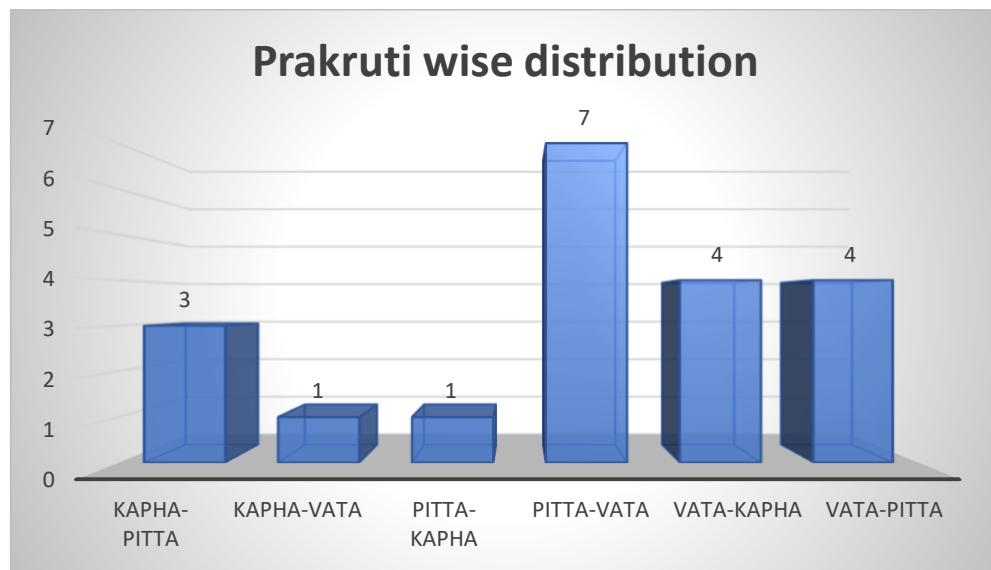
### 1) Graph No. 1: Distribution of patients according to age (in years)



### 2) Graph No. 2: Distribution of patients according to socio-economic class



### 3) Graph No. 3: Distribution of patients according to prakruti



### STATISTICAL ANALYSIS

The sample size was 20. On each sample 3 qualitative (ordinal) parameters and 3 nominal parameters were measured before and after treatment.

According to type of parameter the appropriate statistical tests are as follows:

Type of variable	What is going to check	Appropriate test
Ordinal	Before and after treatment results	Wilcoxon signed rank test
Nominal	Before and after treatment results	McNemar test

#### Results:

- 1) **Strava pramana:** Result of before and after treatment by **Wilcoxon signed rank test** as follows:

**Figure no.1- Before and after treatment result- Strava pramana**

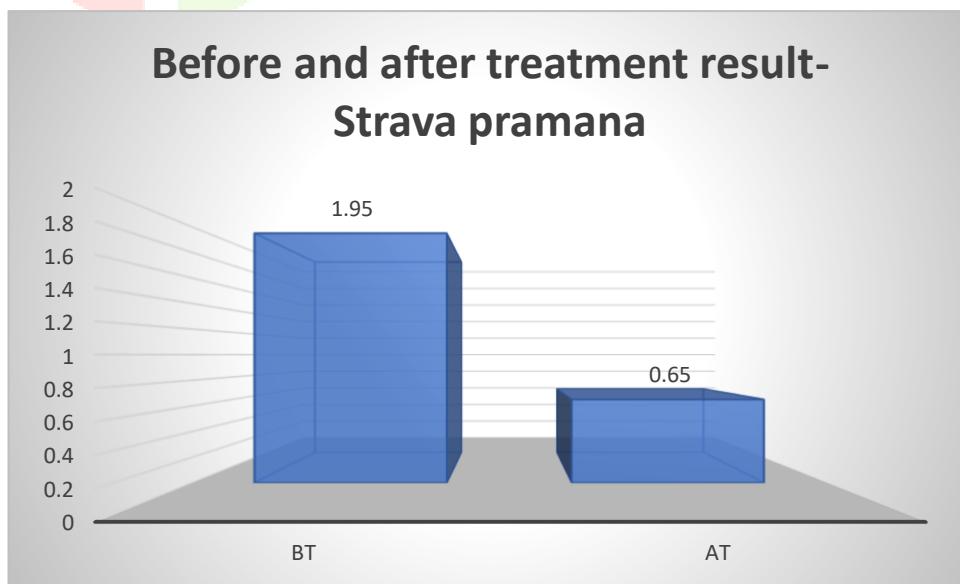


Table no.1.- Result of Wilcoxon signed rank test- Strava pramana

Strava pramana	Mean		% of improvement	Negative rank	Positive rank	Ties	W	P value
	BT	AT						
	1.95	0.65	66.7	20	0	0	-4.099	<0.001

**Interpretation:** The mean Strava Pramana score decreased from 1.95 before treatment (BT) to 0.65 after treatment (AT), reflecting a 66.7% improvement. All 20 participants showed a reduction in scores (20 negative ranks), with no ties or positive ranks observed. The Wilcoxon test statistic (W) was -4.099, with a p-value < 0.001, indicating that the reduction in Strava Pramana was highly statistically significant.

2) **Kandu:** Result of before and after treatment by **Wilcoxon signed rank test** as follows:

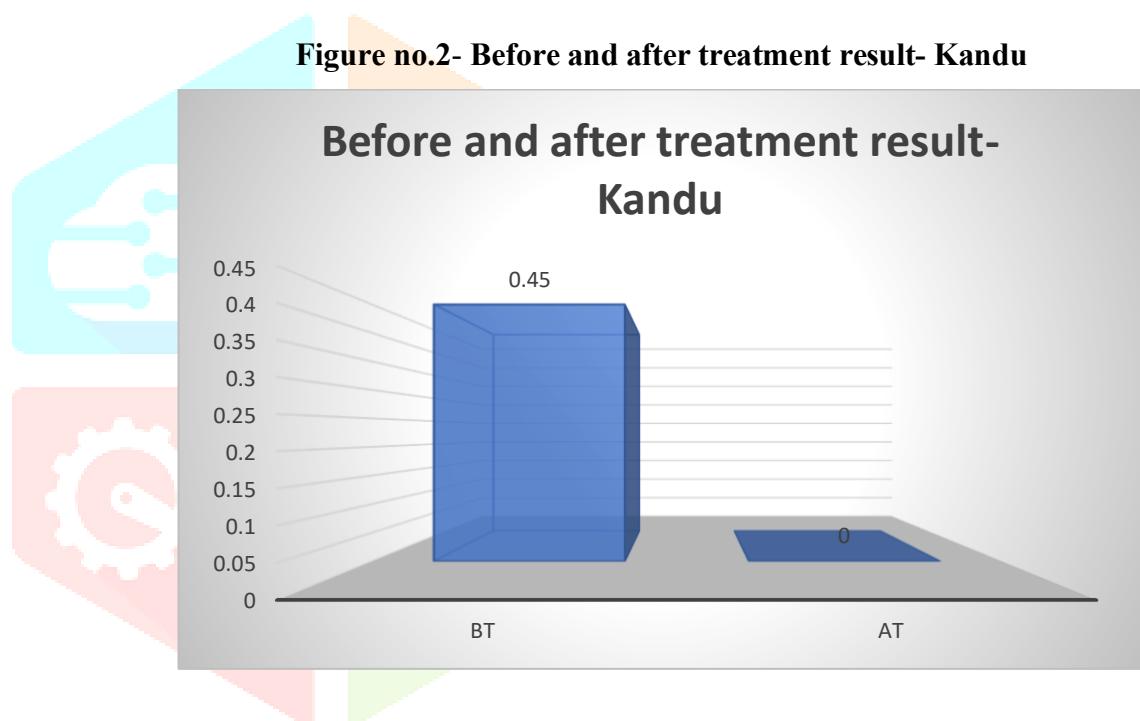


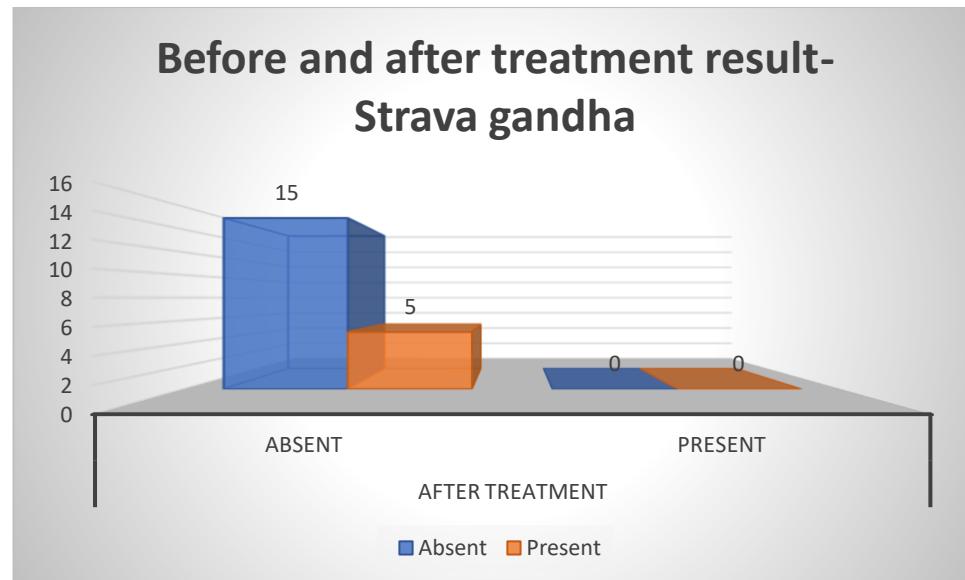
Table no.2.- Result of Wilcoxon signed rank test- Kandu

Kandu	Mean		% of improvement	Negative rank	Positive rank	Ties	W	P value
	BT	AT						
	0.45	0	100	9	0	11	-3.000	0.003

**Interpretation:** The mean Kandu score decreased from 0.45 before treatment (BT) to 0.00 after treatment (AT), reflecting a 100% improvement. It is noteworthy that 11 participants had no Kandu before treatment. Among the remaining participants, 9 showed a reduction (negative ranks), with no positive ranks observed. The Wilcoxon test statistic (W) was -3.000, and the p-value = 0.003, indicating that the reduction in Kandu was statistically significant.

3) **Strava gandha:** Result of before and after treatment by **McNemar test** as follows:

**Figure no.3- Before and after treatment result- Strava gandha**



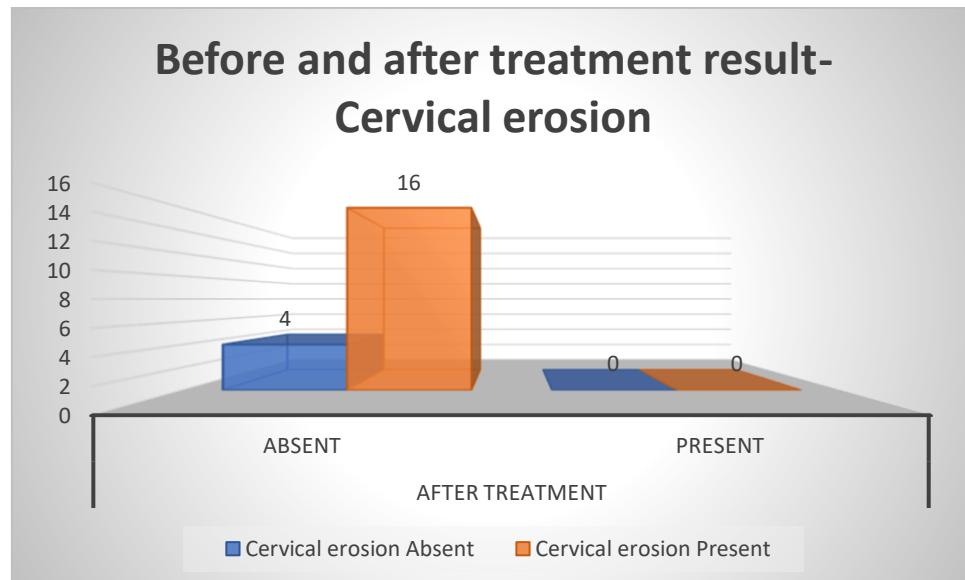
**Table no. 3.- Result of McNemar test- Strava gandha**

Strava gandha	Before treatment	After treatment		Test Statistic	P value
		Absent	Present		
	Absent	15	0	3.200	0.074
	Present	5	0		

**Interpretation:** Strava Gandha was present in only 5 participants before treatment, while 15 participants were already free of it. After treatment, Strava Gandha was absent in all participants. Despite this improvement, the test statistic was 3.200 with a p-value = 0.074, indicating that the change was not statistically significant, likely because only a few participants had the symptom at baseline.

4) **Cervical erosion:** Result of before and after treatment by McNemar test as follows:

**Figure no.4- Before and after treatment result- Cervical erosion**



**Table no. 4.- Result of McNemar test- Cervical erosion**

Cervical erosion	Before treatment	After treatment		Test Statistic	P value
		Absent	Present		
Absent	4	0			
Present	16	0			

**Interpretation:** Before treatment, 16 participants had cervical erosion, while 4 participants were free of it. After treatment, cervical erosion was absent in all participants, showing complete resolution in those affected. The test statistic was 14.062, with a p-value < 0.001, indicating that the improvement was highly statistically significant.

5) **Backache:** Result of before and after treatment by McNemar test as follows:

**Figure no.5- Before and after treatment result- Backache**

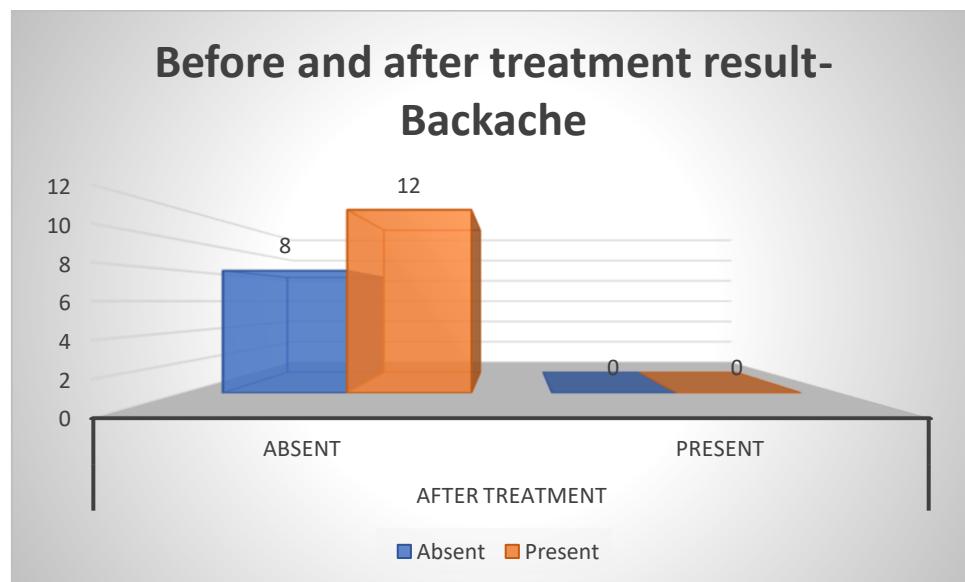


Table no. 5.- Result of McNemar test- Backache

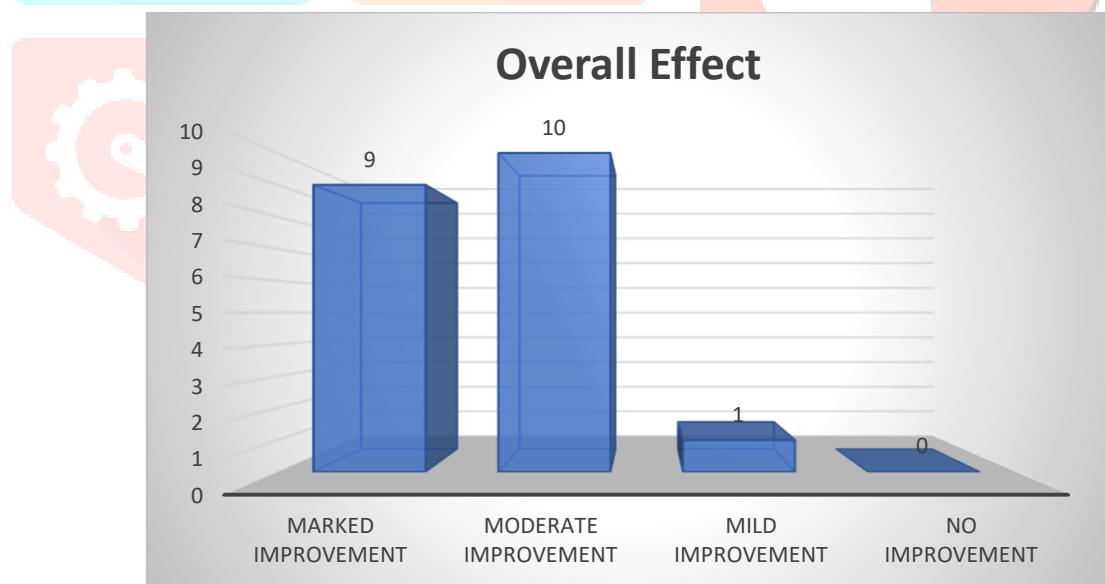
Backache	Before treatment	After treatment		Test Statistic	P value
		Absent	Present		
	Absent	8	0	10.083	0.001
	Present	12	0		

**Interpretation:** Before treatment, 12 participants reported backache, while 8 participants were free of it. After treatment, all participants were free of backache, indicating complete resolution in those affected. The test statistic was 10.083, with a p-value = 0.001, showing that the improvement was highly statistically significant.

Table no. 16.- Overall Effect

Overall effect	Frequency	Percentage
Marked improvement	9	45
Moderate improvement	10	50
Mild improvement	1	5
No improvement	0	0

Figure no. 16- Overall Effect



**Interpretation:** The majority of participants showed moderate improvement (50%), followed by marked improvement (45%). A small proportion (5%) experienced mild improvement, and no participants showed lack of response.

## DISCUSSION

- The present clinical study was conducted on 20 patients of Yonigata Shwetastrava to evaluate the efficacy of Ashwattha Twak Kwatha Yonidhavana. The results of the study showed a statistically significant improvement in the major symptom — strava pramana (amount of vaginal discharge) — along with marked relief in associated symptoms such as kandu (itching), gandha (offensive odour), cervical erosion, and backache.
- The pathogenesis of Yonigata Shwetastrava primarily involves vitiation of kapha and pitta doshas along with apana vata dushti, leading to excessive or abnormal vaginal discharge.
- Ashwattha has kashaya rasa, sheeta virya, ruksha guna, and kapha-pittahara properties, which help in pacifying the vitiated doshas. Its stambhana, shodhana, and ropana actions contribute to reducing discharge, promoting healing of cervical erosion, and restoring local health of the yoni.
- The procedure of yonidhavana itself plays a vital role by cleansing the vaginal canal, removing local pathogens, reducing inflammation, and enhancing absorption of the drug at the site of action.
- The kashaya rasa of Ashwattha help in controlling infection and maintaining the physiological pH of the vagina, thereby reducing kandu and gandha.
- Improvement in cervical erosion and relief in katishoola further support the overall healing and restoration of the local tissue balance (dhatu samya).
- The results observed in this study indicate that Ashwattha Twak Kwatha Yonidhavana is effective in managing Yonigata Shwetastrava. The findings are consistent with Ayurvedic principles described under Yonivyapad chikitsa, where yonishodhana and yoniprakshalana are considered essential for maintaining yoni shuddhi and preventing recurrence.
- Further studies on a larger sample size and with longer follow-up duration are recommended to validate these outcomes and explore the long-term efficacy of this treatment approach.

## CONCLUSION

The present clinical study concludes that Ashwattha Twak Kwatha Yonidhavana is an effective local therapeutic measure in the management of Yonigata Shwetastrava. The treatment produced statistically significant improvement in strava pramana, kandu, gandha, cervical erosion, and backache, indicating both symptomatic and local healing effects. It is a safe, simple, and economical therapy, and further studies on a larger scale are recommended to confirm these results.

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