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### A Clinical Evaluation of *Lodhra Kalka* with *Vata Twak Kwatha* in *Shweta Pradara* (Leucorrhoea)

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#### ABSTRACT

**Background:** Shweta pradara is a common gynaecological complaint faced by the women of all ages, because of moist and sweaty genitals. Shweta pradara is one of the most common of all where women approach to hospital. A woman reaches various stages in her life which includes puberty, reproductivity, pregnancy, labour, puerperium, menopause etc. During all these stages, there will be many physiological changes one of which is secretion in vagina termed as leucorrhoea or shwetha pradara.

**Objectives:** 1. To evaluate the effect of *Lodhra* and *Vata twak kwatha* in *Shweta Pradara*

**Method:** Married females between the age group of 20-40 years with complaints of excessive discharge per vagina and vaginal smear negative for organisms were taken for the study. *Lodhra kalka* with *vata twak kwatha* was given for 45 days and assessment was done on every 15<sup>th</sup> day of the study.

**Result:** Most of the parameters showed significant results at p value <0.001. Overall effect of therapy showed that 50% had complete remission, 23% had moderate improvement, 7% had mild improvement, 3% had no change, 16% got marked relief.

**Interpretation & Conclusion:** *Shweta pradara* develops due to vitiation of kapha and vata. Based on the result, it was found that *Lodhra* due to its sangrahi and kandughna property and *Vata* due to its shoshana property combated *shweta pradara*.

#### KEYWORDS

*Shweta Pradara, Lodhra, Vata*



**Greentree Group**

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## INTRODUCTION

Persistent and excessive vaginal discharge is commonly termed as Leucorrhoea<sup>1</sup>.

It is a very common complaint especially among women in 3<sup>rd</sup> world countries<sup>2</sup>. Sometimes women seek aid for this symptom rather than the underlying disease<sup>3,4,5</sup>. Leucorrhoea is termed as physiological when it is associated with different phases of menstrual cycle.

In physiological discharge normal vaginal flora colonizes the vaginal epithelium and have a role in defence against infection and maintains pH between 3.8-4.4<sup>6</sup>.

Alteration in pH of vaginal secretion and bacterial flora predispose to leucorrhoea. Physiological leucorrhoea is seen when the discharge originates in the vagina itself as a transudation through the vaginal walls, when the discharge is visualized microscopically it contains mucus, epithelial debris, organisms of various kinds and in second half of menstrual cycle some leucocytes<sup>7,8</sup>.

In Ayurvedic literature Brihatrayee have described shweta pradara in term of yoni srava as a symptom in many yoni rogas<sup>9,10,11</sup>.

Shweta means white, pradara means pradeerana or excessive flow. Chakrapani has explained pandura pradara as shweta pradara<sup>12</sup>. Laghutrayee Acharya

yogaratnakara<sup>13</sup> Bhavaprakasha<sup>14</sup> Sharangadhara<sup>15</sup> have used the term shwetapradara.

Proper food habits sleep and exercise is essential for removal of systemic toxicity which is responsible for leucorrhoea<sup>16</sup>.

Almost 80% of world population in developing countries depends on traditional medicines for primary health care and also in alternative system of medicine, nearly 25% of medicines are derived from plants<sup>17,18</sup>.

Some of the remedies like use of red raspberry with white pod lilly, lotus seeds and root are used by ayurvedic physician for leucorrhoea<sup>19</sup>.

Hence, the following clinical work is undertaken to study the efficacy of lodhra kalka with vata twak kwatha in shweta pradara.

## OBJECTIVES

To evaluate the efficacy of *Lodra kalka* with *Vata twak kwatha* in *Shwetha pradara*.

## MATERIALS AND METHODS

This clinical study was carried out on 30 patients who attended the OPD and IPD sections of Prasooti tantra and Stree roga Department, SDM Ayurveda hospital Hassan.



Institute ethical committee no is  
SDMCAH/IEC/56/11-12

#### **Source of Data:**

Thirty patients fulfilling the criteria, irrespective of caste, religion and demography were taken for study.

#### **Method of collection of data:**

A special proforma was prepared with all points related to history, physical signs and lab investigations. The parameters of signs and symptoms were scored on the basis of standard method of statistical analysis.

#### **Collection of Drugs:**

*Lodhra churna* was taken from SDM pharmacy Hassan. *Vata Twak* was collected from Dr. Khajrekar raw drug distributor Belgaum. *Vata Twak* was pulverized in SDM pharmacy Hassan, and stored in air tight container.

#### **Diagnostic criteria:**

Patients were selected for the study as per diagnostic criteria of shwetha pradara.

#### **A) Inclusion criteria:**

- Married women of age group between 20-40 years.

- Normal per speculum and per vaginal examination.

- Diagnosed shwetha pradara with excessive white discharge per vagina.

- Vaginal smear- Negative for organisms on microscopy

#### **B) Exclusion criteria :**

- Pregnancy

- PID and STD

- Post menopausal women

- Cervical erosion

- Malignant conditions

- Puerperium

- Diabetes mellitus

#### **Assessment criteria:**

#### **Subjective criteria:**

The improvement in the patient was assessed mainly on the basis of relief in signs and symptoms of the disease. To assess the effect of therapy, all the signs and symptoms were given scoring depending on their severity. A special scoring pattern was adopted for the sign and symptoms as shown in table 1 and table 2:

**Table 1** Subjective parameters

Sl no.	Criteria	3	2	1	0
1	Yoni srava (amount)	Severe(requires pad, severe irritation)	Moderate(needs to change undergarment )	Mild-no pad, no irritation	Absent
2	Consistency of srava	Thick Static	Thin (discharge flows on speculum)	Watery	Absent



3	Yoni kandu	Severe (unrelieved by scratching, excoriation)	Moderate (relief by scratching, without excoriations)	Mild without need to scratch	Absent
4	Katishoola	Severe (continuous pain does not relieved by rest)	Moderate (mildly hampers daily work, relieves by rest)	Mild- (doesn't hamper physical work)	Absent
5	Maithuna asahishnutha	Severe, pain leading to apareunia	Moderate, Pain prevents coitus in most occasions	Mild –pain doesn't prevent penetration	Absent

**Table 2** Objective parameters

Sl no.	Criteria	3	2	1	0
1.	Per vaginal	White discharge coming out of orifice	Moderate that matted the pubic hair	Scanty	Absent

**Investigations:**

Hb%, TC, DC, ESR, RBS, HIV, VDRL,

HBsAg

Urine routine

Vaginal smear

**Method of Research:**

Study design: Interventional analytical experimental study. Data collection was by interview and gynaecological examination. The study had a clearance from the Institutional Ethics Committee. 32 patients were registered, the purpose of the study, nature of the study drugs were explained to the patient, Informed and written consent was taken.

**Treatment protocol:**

*Lodra kalka*, 5g was taken with 50ml of *vata twak kwatha* twice daily internally for 45 days duration. The signs and symptoms were assessed every 15th day of treatment.

Patient was taught to prepare *vata twak kwatha* at home and 1tsp (approx-5 to 6 gm) of *lodhra churna* was taken with *vata kashaya* in empty stomach during morning and evening

**Clinical assessment of results:**

Results were collected based upon following criteria as shown in table 3.

**Table 3** Clinical assessment of results

No change	Less than 25% changes in signs and symptoms
Mild improvement	26-50% relief in signs and symptoms
Moderate improvement	50-75% relief in signs and symptoms
Marked improvement	>76% relief in signs and symptoms
Complete remission	100% relief in signs and symptoms

**RESULTS**

After obtaining a complete history as per the special proforma, observations were made with regard to age, religion, occupation, dietary habits, education, etc



### 1. Incidence according to Age:

Among 32 patients included in this study, 37.5% of patients were in the age group 26-30yrs, 18.8% were in the age group 20-25yrs, 18.8% were in the age group 31-35yrs, 25% patients were in the age group 36-40yrs, as shown in table 4.

**Table 4** Incidence according to Age

Age	Frequency	Percent
20-25	6	18.8
26-30	12	37.5
31-35	8	25.0
36-40	6	18.8
Total	32	100.0

### 2. Incidence according to Socio Economic Status:

Among 32 patients 31.2% were belonging to lower class and 65.6% patients were belonging to middle class and 3.1% under upper socio economic status as shown in table 5.

**Table 5** Incidence according to Socio Economic Status

Social status	Frequency	Percent
Lower	10	31.2
Middle	21	65.6
Upper	1	3.1
Total	32	100.0

### 3. Incidence according to onset of yoni srava:

Among 32 pt 84.4% of them had gradual onset of srava and 15.6% had sudden onset as shown in table 6.

**Table 6** Incidence according to onset of yoni srava

Onset	Frequency	Percent
sudden	5	15.6
gradual	27	84.4
Total	32	100.0

### 4. Incidence according to periodicity of srava:

Among 32 patients 47% had yoni srava continuously throughout the menstrual cycle, 37.5% had srava in the midcycle, 12.5% complained of srava after menses and 3% had intermittent srava as shown in table 7.

**Table 7** Incidence according to periodicity of srava

periodicity	Frequency	Percent
continuous	15	46.9
intermittet	1	3.1
After MC	4	12.5
Mid -cycle	12	37.5
Total	32	100.0

### 5. Incidence according to odour:

In this study among 32 patients 97% had non offensive discharge and 3% had offensive odour as shown in table 8.

**Table 8** Incidence according to odour

Odour	Frequency	Percent
Offensive	1	3.1
Non-offensive	31	96.9
Total	32	100.0

### 6. Incidence according to diet:

Among 32 patient in this study , 84.4% were consuming mixed diet and 15.6% were vegetarians as shown in table 9.

**Table 9:** Incidence according to diet

Diet	Frequency	Percent
Vegetarian	5	15.6
Mixed	27	84.4
Total	32	100.0

### 7. Incidence according to hygiene:

Based on hygiene 96.9% maintained good hygiene and 3.1% had poor hygiene as shown in table 10.

**Table 10** Incidence according to hygiene

Hygiene	Frequency	Percent
Poor	1	3.1
Good	31	96.9
Total	32	100.0

### 8. Incidence according to prakriti:

Among 32 patients, 40.6% were belonging to pittakapha prakriti, 37.5% belong to vatapitta and 21.9% belong to kaphavata prakriti as shown in table 11.

**Table 11** Incidence according to prakriti

Prakriti	Frequency	Percent
Vatapitta	12	37.5
Pittakapha	13	40.6
Kaphavata	7	21.9
Total	32	100.0

### 9. Incidence according to menstrual history:

Among 32 patients 93.8% had regular

**Table 12** Incidence according to menstrual history

Menstruation	Frequency	Percent
Regular	30	93.8
Irregular	2	6.2
Total	32	100.0

### 10. Incidence according to contraception:

Among 32 patients, 71.9% were sterilized, 9.4% were using copper-T and 18.8% of patients were using condom as shown in table 13.

**Table 13** Incidence according to contraception

Contraception	Frequency	Percent
Sterilized	23	71.9
Copper-T	3	9.4
Condom	6	18.8
Total	32	100.0

The obtained data was analysed using statistical package of social sciences (SPSS) version 16. Friedman's test with Bonferroni correction was used to analyze the

significance change in subjective and objective parameters. Wilcoxin signed rank test was done on parameters which show significance in Friedman's test, to interpret the time of significant change. In Friedman's value were expressed as  $\chi^2$  and 'p' value. In wilcoxin it is expressed as ,mean rank, sum of rank, 'p' value and 'z' value.

### Subjective and objective parameters:

The parameters were assessed on 15<sup>th</sup> day, 30<sup>th</sup> day and 45<sup>th</sup> day of treatment.

#### 1. Effect on srava:

Friedman's test on shwetha srava showed a statistically significant change with chi-square( $\chi^2$ ) with degree of freedom(2)=52.603, p value 0.001 wilcoxin signed rank test with Bonferroni correction showed that there is a reduction in shwetha srava in 26 patient ,with no aggravation and no change in 4 patient between BT and AT which is statistically significant at  $z=-4.874$ ,  $p=0.001$

#### 2. Effect on yoni kandu:

Friedman's test on yoni kandu showed a statistically significant change with chi-square  $X^2(1) = 16.333$  p value =0.001. Wilcoxin signed rank test as post hoc test showed that there is reduction in 26 patient with no aggravation and 4 patient had no change between BT and AT which is statistically significant at  $z=-4.874$  and  $p=0.001$





**3.Effect on kati shoola:** Friedman's test on kati shoola showed a statistically significant change with  $X^2(1)=12.300$   $p=0.006$ . Wilcoxin signed rank test as post hoc test showed that there is a reduction in 8 patients with no aggravation and 22 patients remain unchanged between BT and AT, which is statistically non-significant at  $z=-2.828$ ,  $p=0.005$ ,

**4.Effect on Dyspareunia:** Friedman's test on dyspareunia showed a statistically significant change with  $X^2=8.571$ ,  $p=0.036$ . Wilcoxin signed rank test as post hoc test showed that there is reduction in dyspareunia in 4 patients with no aggravation with 26 patients remain unchanged between BT and AT which is statistically non significant at  $z=-2.000$ ,  $p=0.046$

**5.Effect on p/v discharge(on inspection):** Friedman's test on discharge p/v showed a statistically significant change with  $X^2=58.979$ ,  $p=0.000$ . Wilcoxin signed rank test as post hoc test showed that there is a reduction in discharge in 28 patient with no aggravation with 2 patient remain unchanged between BT and AT which is statistically significant at  $z=-4.919$  and  $p=0.000$ .

## DISCUSSION

Clinical study was carried out to assess the efficacy of Lodhra churna with vata twak kwatha in the management of shwetha pradara with special reference to Leucorrhoea. A total of 32 patients were registered, 30 completed the treatment while 2 were dropouts. Two patient did not report for follow up. Only negative vaginal smear for organism were registered.

Married women were included for the study, as per speculum and per vaginal examination is imperative. Pregnancy and other gynaecological disorders were excluded from the study as the drug might further irritate the uterus. Only normal excessive white discharge per vagina was taken. Post menopausal women were also excluded as there will be estrogen deficiency. Considering the active reproductive period, women with age group of 20-40 yrs were selected for the study.





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