

## ORIGINAL RESEARCH ARTICLE

**Role of Oral and Local therapy as well as Lifestyle Modification in the Management of Leucorrhoea**Rachana Gupta\*<sup>1</sup>, TekrajPanthi<sup>2</sup>, L. P. Dei<sup>3</sup>, Shilpa Donga<sup>4</sup>, Gyanendra Shukla<sup>5</sup>, Shweta Pandey<sup>6</sup><sup>1</sup>Medical Officer, Department of StreeRoga and Prasooti Tantra, Rishikul P.G. Ayurvedic College, Haridwar, Uttarakhand, India<sup>2</sup>M. S., Department of StreeRoga and PrasootiTantra, I.P.G.T & R.A., G.A.U., Jamnagar, Gujarat, India<sup>3</sup>HOD & Professor, Department of StreeRoga&PrasootiTantra, I.P.G.T. & R.A., Gujarat Ayurveda University, Jamnagar, Gujarat, India<sup>4</sup>Associate Professor, Department of StreeRoga & PrasootiTantra, I.P.G.T. & R.A., Gujarat Ayurveda University, Jamnagar, Gujarat, India<sup>5</sup>Medical Officer, Department of Panchakarma, Rishikul P.G. Ayurvedic College, Haridwar, Uttarakhand, Gujarat, India<sup>6</sup>Lecturer, J.D.Ayurvedic College & Hospital, Aligarh (U.P.), India

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**ABSTRACT**

Leucorrhoea is defined as excessive vaginal discharge. Profuse foul smelling discharge indicates infection. Approximately 31% Candidiasis, 3% Gonorrhoea, 2% Trichomoniasis and 45% Bacterial Vaginosis (BV) are responsible for this condition. Other important causes are ill health, improper lifestyle, unhygienic condition, poor diet, indecent eating habits etc. Symptoms of Leucorrhoea are somewhat similar to Shwetapradara mentioned in Ayurvedic Literature but there is no separate chapter given in Brihatrayee. Commentator Chakrapani has explained the word Pandura-Asrigdara as Shwetapradara in his commentary on Cha.Chi. 30/116. In the present study 72 patients were selected and divided in 2 groups, in Group-A (N=31) Local vaginal douche of Leuconirmal solution was given (within 15-20 minutes) daily once for 10 days. In Group B (N=41) NiramayaVati, in a dose of 2 gms thrice daily orally along with external medication of Group-A administered for 1 month, after completion of 10 day course of douche. In this study, 83.87% and 90.24% of patients were completely cured in Group-A and Group-B respectively. The drugs used orally and locally had mainly the property of Tridoshaghna, Kapha-vataghna, krimighna, Shothahara; Kandughna etc. which may improve the signs and symptoms of Leucorrhoea. We can overcome this common problem of women by adopting the basic principle of Ayurvedic science like Dincharya, Ratricharya, Sadvritta and Swasthavritta-Palana etc. On the basis of results it may be concluded that over all clinical improvement of Leucorrhoea was better in patients of group-B than group-A.

**Key words:** Leucorrhoea, Vaginal Douche, NiramayaVati, Life style modification.etc**INTRODUCTION**

Abnormal vaginal discharge is the quite frequent met in day to day gynecological clinic. Leucorrhoea is defined as excessive normal vaginal discharge<sup>[1]</sup>. Profuse foul smelling discharge indicates infection. Almost 45% of women experience two or more episodes of **vaginal yeast infection** per year<sup>[2]</sup>. A study in India has shown that the prevalence of reproductive tract infections<sup>[3]</sup>:

- 37.0% - based on symptoms

- 36.7% - laboratory investigations
- 31% Candidiasis,
- 2% Trichomoniasis
- 45% Bacterial Vaginosis (BV)
- 3% Gonorrhoea

Leucorrhoea is somewhat similar to **Shwetapradara** mentioned in Ayurvedic literature but there is no separate chapter given in **Brihatrayee** but they all had described Shwetapradara in term of **Yoni Srava** as a

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symptom in many **Yonirogas**. Commentator **Chakrapani** has explained the word Pandura-Asrigdara as Shwetapradara in his commentary on Cha.Chi. 30/116.

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In Sharangadhara Samhita, Bhavaprakasha and Yogaratnakara, word Shwetapradara is used for **white vaginal discharge**. It is mentioned as a **disease entity** in **Gadnigraha**. (Ga. Ni. Pradara Chikitsa 2). But none of them has elaborated Nidana, Samprapti, Purvarupa, Rupa etc. of Shwetapradara.

Now a days, white discharge is characterized by an evil in the bud stage. A change in the lifestyle, due to rapid urbanization, faulty dietary habits, excessive work load etc. and individual error like self negligence, shame, hesitation to submit to doctor etc. all have raised its incidence rate. While two-third of working women suffer from lifestyle diseases, 53 per cent of them skip meals and go for junk food due to work pressure and deadlines <sup>[5]</sup>, resulting in malnutrition and ill health. Ill health is one of the important causes of excessive discharge <sup>[6]</sup>.

#### AIMS AND OBJECTIVES

- 1) To study the critical review of Ayurvedic and Modern literature on Shwetapradara.
- 2) To study the detailed etiopathogenesis of the Shwetapradara according to Ayurvedic and Modern science.
- 3) To evaluate the clinical efficacy of the selected drug.

#### GROUPING AND POSOLOGY:

Group A	Drug	Dose	Route	Anupana	Duration
	Leuconirmal Douche	600 ml	Vaginal Douche	-	15-20 minutes for 10 days.
Group B	Leuconirmal Douche	600 ml	Vaginal Douche	-	15-20 minutes for 10 days
	Niramayavati	2gmsthree daily	Oral	Water	For one month(after completion of 10 days course of Douche)

#### FOLLOW UP STUDY:

The patients of both groups were checked up weekly once. After completion of one month course patients were again examined generally as well as locally and findings were noted.

#### CRITERIA FOR ASSESSMENT:

The changes observed in the sign and symptoms were assessed by adopting suitable scoring method and objective signs by using appropriate clinical tools. Scoring were adopted as follows-

1-No complaint -

#### MATERIALS AND METHODS:

The patients attending the O.P.D. of Stree roga and Prasooti Tantra, (Kaumarbhritya Dept), I.P.G.T. & R.A., hospital are registered for present study.

#### CRITERIA FOR INCLUSION OF THE PATIENTS- :

- Patients having complaints of cardinal symptoms of Shwetapradara like excessive white vaginal discharge with or without mucus discharge or complaints of whitish yellow frothy discharge were randomly selected for the study.
- Patients having complaints of cardinal symptoms with associated symptoms of Shwetapradara like itching in vagina, mild pain, dyspareunia, increased frequency of micturition etc.
- Only married patients were undertaken for the study.

#### CRITERIA FOR EXCLUSION OF THE PATIENTS-

- Patients having major illness i.e. cardiac disorders, renal disorders, genital malignancy, T.B., Gonorrhoea, Syphilis, H.I.V.

#### INVESTIGATION

- **Blood:** Hb gm%, TC, DC, ESR.
- **Urine:** Routine and Microscopic examination.
- **Biochemical tests:** Blood sugar, S. calcium, S. protein
- **Culture test:** For the doubtful vaginal smear of *Trichomonas vaginalis* etc.

2-Mildcomplaint +

3-Moderate complaint ++

4-Severe complaint +++

Finally, the result of treatment was assessed on the basis of following criteria:

- 1) Absence of *Trichomonas vaginalis* and *Candida albicans* from vaginal smear.
- 2) Improvement in the cardinal and associated signs and symptoms
- 3) Changes in the vaginal pH.

- 4) Time taken for the healing of the cervical erosion.  
5) Changes in routine blood, urine, vaginal smear investigation.

- 1-Cured – 75% to 100%  
2-Marked improvement – 50% to 75%  
3-Improvement – 25% to 50%  
4-Unchanged – Below 25%

### ASSESSMENT OF TOTAL EFFECT OF THERAPIES-

The overall effect of therapy was assessed in 4 groups in terms of percentage relief in all the cardinal signs and symptoms:

### OBSERVATION:

Total 75 patients registered in the present study, out of which 72 completed the treatment and 03 were dropped out. In group-A 31 and group-B 41 patients completed the treatment.

Patients with	No of patients		Total	Percentage %
	Group A	Group B		
Nature of work-Sedentary	15	23	38	52.78
Socio-economic status-Lower class	14	21	35	48.61
Consuming Kapha-Pitta vardhaka diet	11	22	33	45.83
Addiction of Tea	30	39	69	95.83
Mandagni	22	26	48	66.66
Regular menstrual history	16	18	34	47.22
Without any Contraceptive history	15	17	32	44.44
Unhygienic condition	12	15	27	37.50
Yonigata ShwetaSrava	31	41	72	100
Yoni Picchilata	24	32	56	77.77
Yoni Kandu	30	38	68	94.44
Yoni daurgandhya	29	38	67	93.05
Kati shoola	31	39	70	97.22
Angamarda	21	26	47	65.27
Daurbalya	24	32	56	77.77
Bhrama	25	34	59	81.95
Vaginitis	23	29	52	72.22
Cervicitis	13	22	35	48.61
Wet smear examination- <i>T vaginalis</i>	29	40	69	95.83
<i>Candida albicans</i>	28	40	68	94.44
Pus cells	31	41	72	100
Vaginal pH( 6.5)	11	20	31	43.06

## RESULTS

**Table 1: Effect of Local Therapy (Group-A) on Cardinal Signs and symptoms; n=31**

Cardinal symptoms	Mean		% of relief	S.D.	S.E.	t	P
	B.T.	A.T.					
Yonigata ShwetaSrava	2.58	0.65	74.8	0.72	0.13	14.81	<0.001
Yoni Picchilata	1.58	0.08	94.9	0.51	0.10	15.00	<0.001
Yoni Kandu	2.17	0.27	87.5	0.77	0.13	13.14	<0.001
Yoni daurgandhya	1.21	0.10	91.7	0.31	0.06	19.17	<0.001

In Group A, while observing the effect of Local Therapy on cardinal signs and symptoms statistically it was observed that initial mean value of Shweta Srava, Yoni Picchilata, Yoni Kandu, Yoni daurgandhya was 2.58, 1.58, 2.17, 1.21 respectively, which was reduced to 0.65, 0.08, 0.27, 0.10 respectively. So the improvement was **statistically highly significant (P<0.001)**

**Table 2: Effect of Local Therapy (Group-A) on General signs and symptoms; n=31**

General symptoms	Mean		% of relief	S.D	S.E	t	P
	B.T.	A.T.					
Kati Shoola	1.50	0.77	48.66	0.48	0.08	7.61	<0.001
Angamarda	1.19	0.43	63.86	0.66	0.14	4.64	<0.001
Daurbalya	1.13	0.65	42.47	0.60	0.13	4.38	<0.001
Bhrama	1.20	0.32	73.33	0.52	0.11	9.18	<0.001

In Group A, effect of local therapy on general signs and symptoms was **statistically highly significant (P<0.001)**.

**Table 3: Effect of local therapy (group-a) on local pathology and investigation; n=31**

Local pathology	Mean		% of relief	S.D	S.E	t	P
	B.T.	A.T.					
Vaginitis	1.17	0.22	81.19	0.51	0.11	7.24	<0.001
Cervicitis	1.08	0.31	71.29	0.58	0.14	5.20	<0.001
Wet smear examination- <i>T vaginalis</i>	1.72	0.16	90.69	0.71	0.13	9.90	<0.001
<i>Candida albicans</i>	1.89	0.55	70.89	0.84	0.15	7.83	<0.001
Pus cells	1.80	0.77	57.22	0.73	0.13	7.89	<0.001
Vaginal pH	6.50	5.00	23.07	0.64	0.11	13.53	<0.001

In Group A, effect of local therapy on local pathological findings and investigation was **statistically highly significant (P<0.001)**

**Table 4: Effect of Combined Therapy (Group-B) on Cardinal signs and symptoms; n=41**

Cardinal symptoms	Mean		% of relief	S.D	S.E	t	P
	B.T	A.T					
Yonigata ShwetaSrava	2.68	0.22	91.79	0.50	0.08	31.08	<0.001
Yoni Picchilata	1.53	0.66	96.07	0.50	0.08	16.38	<0.001
Yoni Kandū	1.58	0.18	88.60	0.59	0.09	14.63	<0.001
Yoni daurgandhya	1.32	0.05	96.21	0.44	0.07	17.44	<0.001

In Group B, The treatment has shown **highly significant effect (P<0.001)** on all the cardinal signs and symptoms.

**Table 5: Effect of Combined Therapy (Group-B) on General Signs and symptoms; n=41**

General symptoms	Mean		% of relief	S.D	S.E	t	P
	B.T	A.T					
Kati Shoola	1.92	0.54	71.87	0.54	0.08	15.90	<0.001
Angamarda	1.20	0.80	33.33	.43	0.08	10.00	<0.001
Daurbalya	1.22	0.66	45.90	0.56	0.09	5.63	<0.001
Bhrama	1.21	0.53	56.19	0.45	0.07	9.21	<0.001

In Group B, the effect of combined therapy on general signs and symptoms was **statistically highly significant (P<0.001)**.

**Table 6: Effect of Combined Therapy (Group-B) On Local Pathology and Investigation; n=41**

Local pathology	Mean		% of relief	S.D	S.E	t	P
	B.T	A.T					
Vaginitis	1.38	0.10	92.75	0.46	0.08	13.48	<0.001
Cervicitis	1.41	0.23	83.68	0.60	0.12	09.37	<0.001
<b>Wet smear examination- T.vaginalis</b>	1.57	0.10	93.63	0.71	0.11	13.47	<0.001
Candida albicans	1.71	0.46	73.09	0.71	0.11	9.29	<0.001
Pus cells	2.00	0.73	63.50	0.60	0.09	12.73	<0.001
Vaginal pH	6.00	4.00	33.33	1.11	0.17	14.05	<0.001

In Group B, effect of combined therapy on local pathological findings and investigation was **statistically highly significant (P<0.001)**.

**Table 7: Over All Effect of Local Therapy (Group-A) And Combined Therapy (Group-B); n=72**

Parameters	Group A		Group B	
	No. of patients	%	No. of patients	%
Cured	26	83.87	37	90.24
Marked improvement	04	12.90	03	07.32
Improved	01	03.23	01	02.44
Unchanged	00	00.00	00	00.00

In group A out of 26 patients 83.87% were completely cured, 12.90% of patients were markedly improved, 3.23% of patients were improved and none of the patients remain unchanged. In Group B out of 37 patients 90.24% were completely cured, 7.32% of patients were markedly improved, 2.44% of patients were improved and none of the patients remain unchanged.

## DISCUSSION

- Due to today's food habits, changing life style and especially due to continuously nagged and accepted as an essential feature of womanhood vaginal discharge has emerged as one of the commonest reproductive health problem of women. Modern day couples find less or no time to cook in the house as both are working. Moreover today's job or profession is highly demanding which makes them working for long hours, leaving little time to look after their house and children. This automatically pushes them to the easiest choice of ready-to-eat junk foods. These foods consist of high calories and have artificial colouring and preservatives. So there is no wonder why these foods are serious health hazards over a period of time. Using readymade foods replace our traditional food which is full of vegetables and fruits. Due to this malnutrition occurs gradually and if it prolonged, leads to decreased immunity which is one of the cause for leucorrhoea (Shwetapradara).
- Nature of work of 52.78% of patients was sedentary which may cause mandagni, mental ups and down.
- 48.61% patients were from lower class. These people belong to the lower level of the economic ladder; therefore, they undergo lot of stress and these people cannot get proper diet and hygienic environment. So the chances of malnutrition are higher in lower class.

- Unhygienic condition was related to 37.50% of patients.
- 45.83% of patients were consuming Kapha-Pitta vardhaka diet. Though Kapha & Vata seems to be leading Doshas responsible for Shwetapradara but the role of Pitta cannot be totally neglected here, as it is said to be responsible for Paka. Most of the Leucorrhoea are the consequence of urogenital infections and thus, vitiation of Pitta should also be given due attention.
- Mandagni was found in 66.66% of patients which is main causative factor of Shwetapradara

In the present study Contents of **Niramaya Vati** are Gandhaka, Shukti pisti, Chandana, Kutaja, Guduchi, Haritaki, Amalaki, Dadima, Guggulu and **Leuconirmal douche** contains Nimba, Jati, Haritaki. Most of these drugs are possessing Katu, Tikta, Kashaya Rasa and Dipana Pachana properties which elevates jatharagni and reduces Ama (main causative factor of Shwetapradara). Laghu, Ruksha Guna of Vayu Mahabhuta of Katu, Tikta, Kashaya Rasa dries up excessive secretions. Akash Tatva of Tikta Rasa shows Lekhana properties and clears channels and thus Artavavaha Srotodushti become relieved. The Vranaropana, Shothahara, Dahanashaka and Kandughna properties of drugs directly act on inflammatory condition. Leuconirmal douche is beneficial to genital tract with Pichhila or Kleda and white vaginal discharge. The douche contains herbal drugs having Tikta Kashaya Rasa, Ruksha-Laghu Guna, Pitta kaphaghna properties which help to cure Shwetapradara.

### CONCLUSION

The group B of combined therapy of Niramayavati and Leuconirmal douche was more effective (90.24%) in comparison to single mode of treatment. Ama is a main causative factor for Shwetapradara. Drugs with Tikta Kashaya Rasa, Ruksha –Laghu Guna, Pitta kaphaghna properties

can effectively cure the condition. Administration of drugs through oral along with local route will certainly give promising results in Shwetapradara. Considering Lifestyle disorders, one more thing is important that, according to **Vaidya Lolimbaraj** [7]:

pWye sit gdaÄRSy ikmaE;xin;ev[E>,  
pWye=sit gdaÄRSy ikmaE;xin;ev[E>.

So, it can also be concluded that Lifestyle modification like maintenance of hygiene, healthy and nutritious diet, stress free mind, proper rest and sleep, take care of herself etc. are essential for the treatment of Leucorrhoea or Shwetapradara.

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