

An outline on *Shweta pradara* and An observational study on its clinical presentation

Research Article

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Abstract

Leucorrhoea is one of the commonest complaints among women of reproductive age group. An increase in the normal vaginal secretion develops physiologically at puberty, at ovulation, premenstrual phase and during pregnancy. Excessive discharge causes irritation and itching in the genitalia. *Ayurveda* explains this condition as *Shwetha pradara*. Though it is not a separate disease, clinically it has great relevance. This paper is an attempt to outline the details of *Shwetha pradara* as described in the classics and to illustrate its clinical presentation in 50 patients as an observational study.

Key Words: *Leucorrhoea, Shwetha pradara, Vaginal secretion, Yoni srava.*

Introduction

Leucorrhoea is an abnormal, non-hemorrhagic vaginal discharge which may be white, yellow or greenish in colour, accounting for more than an estimated of 25% of patients visits to gynaecologist. (1) Physiologically, some amount of vaginal discharge may be noted in various phases of menstrual cycle of a female depending upon the changes in the vaginal epithelium; bacterial flora and pH of the vagina. (2) Anyhow, when physiological, it is not associated with any other symptoms apart from discharge. But when it turns into a pathological condition, the female complains of associated problems like itching and burning sensation of the genitalia, lower abdominal pain, urinary disturbances, dyspareunia, discomfort, low back ache etc. (3) On microbiological examination, infections with organisms like *Trichomonas vaginalis*, *Candida albicans*, mixed bacterial infections, Monilial infections, etc have all been associated with leucorrhoea. (4) Though this disease condition does not cause morbidity or mortality in a female, health and efficiency of women are affected at large. The response to treatment is also not quick and requires constant consultation. The concept of leucorrhoea is explained under *Shweta pradara* in *Ayurveda*. Several approaches are explained in *Ayurveda* regarding the same. In this paper, it is proposed to outline the presentation of *shweta pradara* as explained in *Ayurveda* and observe the presence of its

symptomatology in the form of an observational study in 50 patients.

Nirukti of the term *Shweta pradara*:

Shweta means anything which is white in colour. *Pradara* means excess or in increased quantity, which indicates excessive flow. (5) Hence the combined term *Shweta pradara* means excessive white discharge per vagina.

Different varieties of vaginal discharges are explained under different context of *pradara*. An attempt is made to summarise the various types of vaginal discharge on the basis of consistency, colour & smell etc, in Table 1.

Table.1: Types of Vaginal discharge as explained in Ayurvedic classics

<i>Tanu</i> (thin) (6)	The discharge is thin or watery and noticed when there is vitiation of <i>Vata dosha</i> .
<i>Shweta</i> (White), <i>Sakapha</i> (7)	The discharge is thick and mucoid. It involves vitiation of <i>kapha dosha</i> .
<i>Snigdha</i> (unctuous)(8)	The discharge is unctuous.
<i>Vidagdha</i> (burnt like), <i>peeta</i> (9)	The discharge is muco-purulent. It mainly involves vitiation of <i>kapha</i> and <i>pitta</i> .
<i>Picchhila</i> (slimy) (10)	The discharge is slimy. It is found when there is vitiation of <i>kapha</i> accompanied with <i>vata</i> .
<i>Durgandhi</i> (purulent) (11)	The discharge is a purulent one. Noted in vitiation of all the three <i>dosha</i> .

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There is no reference for the terminology “*Shweta Pradara*” in the *Brihatrayee* - the three main treatises of *Ayurveda*. Anyhow, *Cakrapanidatta*, the

commentator of *Charaka Samhita* has explained *Shwetapradara* as *pandura pradara* (12) and *Indu*, the commentator of *Ashtanga Sangraha* explains it as *shukla asrigdara*.(13). There is a mentioning of *Shweta pradara* in the later text books of *Ayurveda* like *Sharangadhara Samhita* (14), *Bhava Prakash*, (15) *Yoga Ratnakara* (16) in the context of *yonisrava*. Anyhow in all these references, it has not been explained as a separate disease entity, but as a symptom of an underlying pathology. In spite of this, *Shweta pradara* seeks maximum attention from the physicians as, irrespective of the underlying pathology, patients come to seek treatment giving utmost importance to this symptom and moreover, it still remains to be a challenge to the gynaecologists. The various disorders in which *Shweta pradara* exhibits itself as a symptom are explained in table.2.

Table 2: Disorders where *Shweta pradara* is a main symptom

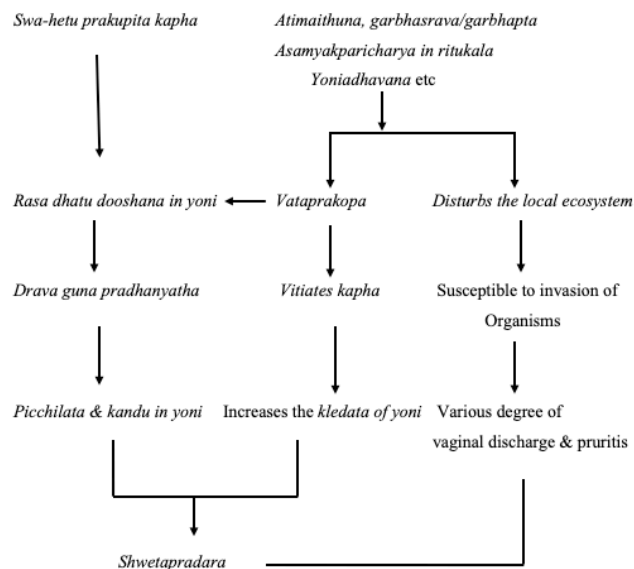
Yoni vyapat	Lakshanas
<i>Kaphaja yonivyapat</i> (17)	<i>Picchila</i> (slimy), <i>kanduyukta</i> (associated with itching), <i>atisheetala</i> (cold) and <i>alpavedana</i> (less pain)
<i>Sannipatika Yonivyapat</i> or <i>Tridoshaja</i> or <i>Sarvaja yonivyapat</i> (18)	When the condition involves all the <i>doshas</i> (biohumours), it presents with <i>shweta</i> (white) and <i>picchila</i> (slimy) discharge along with <i>daha</i> (burning sensation) and <i>shola</i> (pain).
<i>Upapluta yonivyapat</i> (19)	White mucoidal discharge (<i>shweta</i> , <i>sakapha</i>) white (<i>pandu</i>) discharge associated with pricking pain.
<i>Aticharana yonivyapat</i> <i>Acharana yonivyapat</i> <i>Atyananda yonivyapat</i> <i>Karnini yonivyapat</i> (20)	Even though the cardinal symptoms of these four <i>yonivyapat</i> are different, <i>kandu</i> (itching) and <i>paicchhilya</i> (sliminess) are in common as all these are due to predominance of <i>k a p h a</i> , and the term “ <i>paicchhilya</i> ” refers to discharge.
<i>Prasramsini yonivyapat</i> (21)	One of its features includes- <i>Syandate</i> - meaning- <i>sravati</i> -indicating towards vaginal discharge.
<i>Pittala yonivyapat</i> (22)	May be associated with purulent vaginal discharge.

Shweta pradara usually exhibits itself as the main presenting symptom of an underlying pathology, and hence its etiopathogenesis would be that of the principal disease. However, on the basis of the clinical features it exhibits, the following etiopathogenesis may be considered.

Samprapti of Shweta pradara: (Etiopathogenesis)

The *samprapti* can be explained as depicted in the flow chart below:

Flow Chart 1



Samprapti ghataka: (Component of Pathogenesis)

- *Dosha* : *Kapha, Vata*.
- *Dhatu*: *Rasa, Rakta*
- *Srotas*: *Artavavaha srotas*.
- *Rogamarga* : *Abhyantara*.
- *Adhistana* : *Yoni , Garbhashaya*
- *Sroto Dusti* : *Atipravritti*
- *Vyakthasthana* : *Yoni*

Chikitsa (Treatment)

The treatment modality of *Shweta pradara* involves the *Abhyantara* (internal administration) and *Bahya prayogas* (external administration). The drugs used for internal administration are described in table.3.

Table 3: Drugs used in *Abhyantara prayoga* (Internal administration):

S. No	Drug	Scientific source	Reference
1	<i>Amalaki choorna</i> with Honey	<i>Emblica officinalis</i> Gaertn	<i>Charaka Samhita, Chikitsa sthana, 30/117</i>
2	<i>Rohitaka mula kalka</i> (paste of root powder) with water	<i>Tecomella undulata</i> (Sm.)	<i>Bhava prakasha, Chikitsa sthana 69/7</i>
3	<i>Amalaki beeja kalka</i> (paste of seed powder) mixed with honey and sugar	<i>Emblica officinalis</i> Gaertn	<i>Bhava prakasha, Chikitsa sthana 69/7</i>
4	<i>Nagakeshara</i> with <i>takra</i> (buttermilk)	<i>Mesua ferrea</i> Linn.	<i>Yoga Ratnakara, Soma roga chikitsa</i>

5	Lodhra kalka (paste of bark powder) along with Nyagrodha Kashaya (decoction)	Symplocos racemosa Roxb. Ficus bengalensis Linn	Charaka Samhita, Chikitsa sthana, 30/118
6	Chakramarda moola with tandulodaka	Cassia tora Linn	Yoga Ratnakara, Soma roga chikitsa

The different formulations used in *Shweta pradara* are described in table.4

Table 4: Formulations used in *Shweta pradara*

S.No	Formulation	Reference
1	Darvyadi kwatha	Sharangadhara Samhita, Madhyama khanda 2/112
2	Nyagrodhadi kashaya	Sushruta Samhita, Sutrasthana 38/49
3	Pushyanuga churna	Charaka Samhita, Chikitsa sthana, 30/90-96
4	Ashokarishta	Bhaishajya Ratnavali, Striroga adhikara 114-116
5	Lakshmanarishita	Bhaishajya Ratnavali, Pradara roga 565/115-117
6	Patrangasava	Bhaishajya Ratnavali, Pradara Chikitsa 122-126
7	Lodhrasava	Ashtanga Hridaya Chikitsa, 12/24-27
8	Ashoka ghritha	Bhaishajya Ratnavali, Pradara Chikitsa 17-21
9	Kalyanaka ghritha	Ashtanga Hridaya Uttaratantra 6/26-28
10	Sukumara ghritha	Ashtanga Sangraha Chikitsasthana 15/20
11	Kadali Kanda ghritha	Yoga Ratnakara, Somaroga chikitsa

Bahyaprayogas: (External administration): (23)

- *Yoniprakshalana* (Vaginal Irrigation) – done with drugs like *Lodhra* (*Symplocos racemosa* Roxb.) & *Vata* (*Ficus bengalensis* Linn) *twak kashaya*, *Triphala kwatha* (*Terminalia chebula* Retz, *Terminalia*

bellirica. Roxb and *Embllica officinalis* Gaertn decoction) with *takra* (buttermilk) etc.

- *Vartidharana* (Suppository) – After oleating the vaginal canal, suppository made with *Lodhra* (*Symplocos racemosa* Roxb), *Priyangu* (*Callicarpa macrophylla* Vahl) & *Madhuka* (*Madhuca indica* J.F.Gmel.) should be kept in *yonis* (Vaginal canal).
- *Avachurnana* (Sprinkling with powder)- *Khadira* (*Acacia catechu* (Linn.f.)), *Pathya* (*Terminalia chebula* Retz), *Jatiphala* (*Myristica fragrans* Henlt.), & *Nimba* (*Azadirachta Indica* A.Juss) *churna*, *Panchavalkala churna* (*Vata* (*Ficus bengalensis* Linn.), *Ashwatha* (*Ficus religiosa* Linn.), *Udumbara* (*Ficus glomerata* Roxb), *Plaksha* (*Ficus lacor* Buch-Ham.), *Parish* (*Thespesia populenea* Soland. ex Correa.) Though it is mentioned under *avachurnana*, it is best used as *prakshalana* (Vaginal irrigation).
- *Pichudharana* (Tampoons)- *Nyagrodha* or *Vata* (*Ficus bengalensis* Linn) & *Lodhra* (*Symplocos racemosa* Roxb), *twak kashaya* is placed in the *yonis* (Vaginal canal) as *pichu* or tampon.
- *Yoni Dhupana* - *Dhupana* (Fumigation) with *Sarala* (*Pinus roxburghii* Sarg), *Guggulu* (*Commiphora mukul* Hook. Ex Stocks) and *Yava* (*Hordeum vulgare* Linn) mixed with *Ghritha* (ghee) should be done after oleating the genitals.

Observational Study

- 50 patients who attended the OPD of *Prasuti tantra* at Sir Sundarlal Hospital, IMS, BHU were studied as per the diagnostic criteria of *Shweta pradara*.
- Duration of Study: 6 months
- Sample size: 50
- Method of collection of data: Structured questionnaire, examination and vaginal swab.
- Inclusion criteria: All women between the age group-15-45 years, complaining of leucorrhoea, irrespective of pathology.
- Exclusion criteria: Pregnancy, Pelvic inflammatory disease and Sexually transmitted disease, Post menopausal women, cervical erosion.
- Different subjective parameters assessed in the subjects using a questionnaire are described in table 5.

Table 5: Subjective parameters assessed in questionnaire

S.No	Criteria	3	2	1	0
1.1	<i>Yonisrava</i> (Discharge)	Severe (requires pad, severe irritation)	Moderate (needs to change undergarment)	Mild-no irritation	Absent
1.3	<i>Yonikandu</i> (Pruritis)	Severe (unrelieved by scratching, excoriation)	Moderate (relief by scratching, without excoriations)	Mild without need to scratch	Absent
1.4	<i>Katishola</i> (Back ache)	Severe (continuous pain does not relieve by rest)	Moderate (mildly hampers daily work, relieves by rest)	Mild-(doesn't hamper physical work)	Absent
1.5	<i>Maithuna Asahishnutha</i> (Dyspareunia)	Severe, pain leading to apareunia	Moderate, Pain prevents coitus in most occasions	Mild –pain doesn't prevent penetration	Absent

Observations and Discussion

Among 50 patient included in this study, 2% of patients were in the age group 15-20yrs, 6% in 21-25yrs, 4% in 26-30yrs, 36% in 31-35yrs, 42% in 36-40yrs and 10% in 41-45yrs respectively. 84% of patients were Hindus and 16 % were Muslims. Based on educational status 12% had primary education, 56% were high school, 26% were graduates and 6% uneducated. Among 50 patients 86% were homemakers and 14% were working women. 52% belonged to lower class and 46% patients belonged to middle class and 2% under upper socio economic status. Based on hygiene 94% maintained good hygiene and 6% had poor hygiene. 92% of the patients had regular menstruation and 8% had irregular menstruation. 60% had history of normal vaginal delivery, 30% delivered by caesarean section and 10% patient were nulliparous. 46 % of the total patients were sterilized, 6% were using copper-T, 20% of patients were using other methods of contraception and 28% used no method of contraception. Among the 50 patients, 22% were para 1, 46% were para 2, 16 % para 3 and 6% were para 4 and 10% were nulliparous.

Incidence according to onset of yoni srava (Vaginal discharge): Among the 50 patients, 76% of them had gradual onset of *srava* and 24% had sudden onset.

Incidence according to periodicity of srava (Vaginal discharge): 72% patients had *yonisrava* continuously throughout the menstrual cycle, 6% had *srava* in the mid cycle, 8% complained of *srava* after menses and 7% had intermittent *srava*.

Incidence according to odour: In this study among 50 patients 94% had non offensive discharge and 6% had offensive odour.

Incidence according to the grading of yoni srava (Vaginal discharge): Among 50 patients included in this study, 68% patients had mild *yonisrava* and 32% had moderate *srava*.

Incidence according to yoni kandu (Pruritis): Among the 50 patients, 80% patients didn't complain of *yonikandu* and 20% had mild *kandu*.

Incidence according to katishoola (Back ache): Among 50 patients, 90% did not complain of *katishoola*, and only 10% had mild *katishoola*.

Incidence according to maithuna asahishnutha (Dyspareunia): In this study among 50 patients, 94% patients didn't complain of *maithuna asahishnutha* and only 6% had mild symptom.

Incidence of different microorganisms in Shweta pradara cases: The incidence of different microorganisms in the observational study based on the vaginal swab are described in table.6

Table 6: Incidence of different micro organisms in Shweta pradara cases

S.No	Organisms Isolated from Vaginal swab	No. of cases	Percent age
1	No organism isolated	14	28%
2	Staphylococci	5	10%
3	Escherichia coli	10	20%
4	Klebsiella	1	2%
5	Pseudomonas	2	4%
6	Candidial species	9	18%
7	Trichomonas vaginalis	3	6%
8	Streptococci	2	4%
9	Micrococci	4	8%

The present study showed the wide distribution of the patients of *shweta pradara*. As suggested in the *samhitas*, *shweta pradara* is not merely a symptom inclusive of vaginal discharge, but it is mostly the presenting feature of an underlying pathology and may be associated with other symptoms like blood or pus mixed discharge, malodor and pruritis. Moreover on isolation of the micro-organism from the vaginal swab, many at times association with different varieties of micro-organism is noted.

Conclusion

The present study has shown clearly that *shweta pradara* is mostly a polymicrobial infection. The study has also shown that incidence of *shweta pradara* is associated with age, parity, other clinical signs and symptoms and involved micro-organism. Thus, before indulging into the treatment of *shweta pradara*, it becomes mandatory to understand the associated symptoms and the pathology involved and investigate thoroughly, frequently and regularly.

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