

Chapter 2

Spotlight on Sweta pradara (Leucorrhoea)

AYURVEDIC DISEASE REVIEW

The passage of time caused unprecedented obstacle in the progress of Ayurveda, the oldest and most accurate science of life. The obstacle was relatively more marked in the field of Prasutitantra&Striroga (Obs- Gynae) due to various social, ethical & legal reasons. The description of diagnosis disease& treatment of gynaecological disorders are scattered in different Ayurvedic classics. Almost all gynaecological disorders whether related to menstruation or disorders of female genitalia or disorders of breasts, all comes under one heading i.e. **Yonivyapads**. The different meaning of the word *Yoni* has been enumerated in previous chapters & the word *vyapad* means affliction, injury, disease, derangement, death etc. Acharya Charaka has mentioned women as the source of progeny & injury to progeny is caused by the disorders that takes place in female genital tract i.e. **Yonivyapads**.

Sweta Pradara

It is one of the common problems met in gynaecological practice which may be due to increased physiological secretions of genital tract or due to some pathology. The word **Sweta Pradarais** generally found in different context of *Yonirogas* in the form of *Sweta Srava*. The word **Sweta Pradara** consists of two words, the word *Sweta* means white colour&*Pradara* means tearing off or redding. (The practical Sanskrit English dictionary by VamanShivramApte).

The word *Sweta* is also used to describe the colour which cannot be distinguished to a particular one or which cannot be brought under a specific colour. It is also used to denote the colour of *sphatika*. In **Amarkosha**, the following synonyms are used for the word *sweta*— *Shubra, Sukla, Suri, pandura, Gaura, Balasa, Dhavala, Arjuna*etc (Amarkosh 1/5/12). In **Shabdarnava**, the word *sweta*denotes, nearest colour to white & from this meaning, the whitish or yellowish white colour can be considered under the Sweta Pradara.

The next word in this context is **Pradara**which is derived from the Sanskrit root “**Dr+ Vidaranedhatu**” with the prefix “**Pra**” (Amarkosha Sudha vyakhya) which denotes dilatation or tearing off. In Susruta ‘**pradara**’ is defined in terms of **Asragdara**& is explained as an excessive discharge of menstrual blood (**Artava**) or its long persistence even after normal period or its appearance at a premature or unnatural period. (Su.Sa 2/19). But in relation to Sweta Pradara, the word **Pradara**gives the meaning of fear which is derived from the root, **Dr+ Bhaye** to give the meaning of some untoward feelings or thoughts. On the above analysis the term **Sweta pradara** can be explained as a female disorder which produces vaginal discharge in excessive amount i.e. more than the normal, which becomes a cause of fear for impending adverse effect of the genital organ or to the body as a whole. It leads to a state of loss of confidence in a woman in her daily activities.

“Na shukra dharaytyebhi gulmarsha pradradimscha vatadyaisch atipeedanam”(Ca. Ci. 30/38)

In Ayurvedic, word Pradara is used in broad sense. Acharya Charaka in chikitsa 30/38, says that when women are afflicted with 20 types Yonivyapad (diseases of genital organs), she becomes incapable of retaining semen, resulting in non-conceiving. She becomes liable to many diseases like gulma (phantom-tumor), piles, pradara(meno-metorrhagia) because of excessive affliction by vayu.

Rajah pradiryate yasmaat pradarsten sa smrata (Ca. Ci. 30/209)

Since the quantity of menstrual fluid is augmented or expanded it is called as **pradara** due to consumption of saline sour etc. substances, the aggravated **Vayu** causes increase in the quantity of blood of body which get added to menstrual fluid. Because of involvement of **Asrk**(blood) of the body which is increased in quantity (**Diryate**), this ailment is caused **Asrgdara**. Also, according to Shusruta:

Tadav atiprangain pravritam anritavapi,

Ashrangdaram vijaniyadrite anyadraktal kshanat (Su. Sa 2/20)

In short, due to **pradirana** (excessive secretion) of **ruja** (menstrual blood), it is named as **Pradara** since there is **Dirana** (excessive secretion) of **Asrk** (menstrual blood) it is known as **Asrgdara**. Acharya Shusruta says that due to excessive coitus or due to excess amount of menstruation for prolonged time & even for short duration in intermenstrual period different from features of menstrual blood is known as **Asrgdara** or **RaktaPradara**.

The word **Pradara** in **Sweta pradara** symbolize the peculiar disease, “**Pradara**”. In Ayurvedic texts for bleeding per vaginum **Raktapradara**, **Pradara** & **Asrgdara** word has been used & for white discharges **swetasrava**, **yonisrava** or **swetapradara** word has been used. Although the word **Swetapradara** has not appeared in great trios i.e. Charaka, Shusruta & Vagabhattasamhitas even the term is not found in **yonivyapads**. But Acharya Charaka has indicated that diseases are infinite in number according to different types of **ruja**, **varna**, **sthana**, **lakshan** & **naam**. Hence, it's not possible for counting & naming of the diseases.

Ruja varna samuthanam-----yatha sthulashu sangraha (Ca.Su.18/42-43)

Acharya Charakpani has firstly narrated the term in the commentary of Ca.Ci-30/116 as **pandure pradree eti swetapradre**. After that in commentary of As.S.U.T 39/70, Indu also says that... **site shukle asrigdare, **Asragdara** indicates discharge of blood which can never be white, thus Indu's explanation become doubtful, But medicines that are prescribed under this heading are not specifically haemostatic rather than they are of astringent quality which are capable of suppressing any discharges, thus it appears that the word **Asrgdara** has been used to denote any type of vaginal discharges not only bleeding per vaginum. Maharishi Kashyap in “**RevatiKalpa 35**” has described about “**ParisrutaJatiharini**” in which there is continuous discharge in a lean & thin woman. Also, in Sharangadhara Samhita, Bhavprakash, Yogaratnakar, the word “**Sweta pradara**” is used for white vaginal discharges.

Hence Leucorrhoea is not an individual disease, but a symptom of so many diseases, however sometimes this symptom is so severe that it over shadows the symptoms of the actual disease & women come for the treatment of this symptom only. Leucorrhoea may also be noticed without any evident disease, probably the reason why Charaka & Vagabhatta have described only symptomatic treatment.

In classical Ayurvedic texts various types of gynaecological disorders are kept under *Yonivyapad* category. So we can also place Swetapradara under these 20 types of *Yonivyapads*. **Swetapradara** or white discharge is a symptom of all gynaecological disorder developing due to vitiation of *kapha&vatakapha* (*Atyananda, karnini, acarana, aticarana, slesmla, upapluta&praramini*).

Now by observing the different physiological & pathological conditions described in Ayurvedic classics the state of Leucorrhoea may be classified in following groups:

Physiological Sweta Srava

Vagabhatta has described (A.H.Sa 1/72) about some discharge i.e physiological discharge which is mucoid in character & secreted during intercourse is considered as *Shukradhatu* which is incapable of conception. There is one more reference available regarding this context that is in the commentary of Shusrutasamhita by Shivdas Sen (Su.Sa 2/37) who has stated the above discharge as *strisukera* & compared it with frozen Ghee. As the Ghee melts with the help of fire, similarly lubrication of Yoni is facilitated by *strisukera* secreted during coitus. During reproductive period or *Madhyamavastha* in females some amount of secretions is produced which keep the vaginal canal moist & lubricated which can vary in amount & smell. Also, according to constitutional set up or *prakriti* women suffers from the state of inconvenience & *Sweta srava*.

According to vaginal discharge, 5 types of women are described (*AnangaRanga, KamaSutra sloka 22*) according to smell & constitution of discharge;

1. **Padmini stri:** Smell of vaginal discharge resembles with lotus.
2. **Citrinistri:** Smell of vaginal discharge resembles with honey.
3. **Samkhinistri:** Discharge are ksariya (alkaline) in nature & less in amount.
4. **Hastinistri:** Discharge has typical smell of wound (Vranagatasrava)
5. **Harini stri:** Discharge smells like flower.

In *VandhyaKalpadruma* different types of **Vandhya** (VandhyaKalpadruma- Rameswarananda) have been described, regarding **TrimukhiVandhya** it is said that the women have profuse watery discharge during sexual act as she possesses excessive desire for sex & has voracious appetite. The lady who have **Kamalinivandhyatwa** usually have continuous watery vaginal discharge.

B. General & systemic disorders: There are certain general or systemic disorders which produces excessive vaginal discharge. Such discharges are described through the following terms in Ayurvedic classics:

1. **Parisrutajataharini.**

2. **Asthisrava.**

1. **ParisrutaJataharini:** Ācharya Kashyap in **RevatikalpaAdhyaya** (Ka. S.Pa 35) has described a disease as *parisrutajataharini* which is associated with Leucorrhoeal discharge & loss of general health. The lady becomes lean & thin due to attack of jataharini, probable condition of profuse discharge arises due to ill health or malnutrition due to some systemic disorder.
2. **Asthisrava:** In *BasavaRaajiyam* A peculiar vaginal discharge has been described which is white reddish in colour, alkaline in nature clear & *visra Gandhi* associated with *Angamarda&Trsana*. This may also be due to malnutrition.

Local pathological causes of swetasrava:

1. **Kaphaj yonivyapad:** *Kapha* vitiated due to excessive use of **abhisyandi** (articles producing oozing or serous or effusion) substances reaches reproductive system & produces unctuousness, coldness, itching & dull pain in vagina. The woman looks anaemic & discharges yellowish unctuous menstrual blood in the opinion of *Charaka*.

Chakrapani compared this with *Kaphaj Asrgdara* on the basis that yellowish discharges per vaginum are present during intermenstrual period also. *Susruta* has given only local symptoms as presence of unctuousness, itching & excessive coldness.

Kafo abhisyandi abhirvradho yonim ch iti dueshyet striyaam,

Sa kuryat pichhilaam sheetam kandugrast alp vednaam

Paanduvarna tatha pandupichil aartav vahineem (Ca.Ci 30/13)

2. **Upapluta Yoni:** When a pregnant woman consumes *Kapha* provoking diet or indulges in mode of life capable of vitiating *kapha* & also suppresses the desire of vomiting & expiration, then her agitated or vitiated *vayu* withholding *kapha* reaches yoni & produces abnormalities. Due to this, there is either yellowish vaginal discharges which is associated with pricking pain or else white mucoid discharges. Afflicted with features of *kapha* & *vata*, this condition is known as **Upapluta** in the opinion of *Charaka*. *Vagabhatta* has given almost similar description, but not restricted it to the pregnant woman only.

Garbhriyaah shleshmala abhyashchardhini nihswaas nigrहत

Vaayuh krudaha kafam yonim upneey pradushyet

Paandu satodam asraavam swetam sravti vaa kafam

Kaf vaat amay vyapta sayat yoniroop upapluta (Ca.Ci 30/21,22)

3. **Tridoshaja Yonivyapad:** *Acharya Charaka* says that due to consumption of congenial & non-congenial both type of *rasas* together, all the three *Dosas* situated in the *yonim* & *uterus* get vitiated & show their specific symptoms. There is burning sensation, pain, yellowish - white unctuous discharge from vagina. Also the menstrual discharge is whitish pale & unctuous. In *Tridoshajayonivyapad* sign & symptoms are found according to *Doshic involvement*.

“samshan antya rasaan sarvaandusitwa trayo mala,

Yonigarbhasaystha swaryonim yuajanti lakshanai,

Sa bhavet daah shulaarta sweta picchilvaahini (Ca.Ci 30/14,15)

4. **Jarajanya Rogas:** As per Ayurvedic literature old age starts after sixty or seventy years, but in female the reproductive capacity does not last up to this age. Menopause occurs often earlier to this stage. This age is dominated by *Vayu*, so *Vatajanyavikaras* occurs mainly due to vitiation of *vata*. White discharges also persist at this stage due to declination in all *dhatus* or *Kshayavastha* which produce all senile changes including vagina. (Ca.Sa 1/115, Ca,Vi 1/72, Su.Sa3/9).

5. **Aupasargika Rogah (Specific venereal diseases):** In *Gadanigrahagnhyarogachikitsa*, *Upadansa & Puyameha* has been described under *Aupsargikaroga*. *Pnyumeha* which may sometime cause purulent vaginal discharge & condition may be associated with some ulceration in mucous membrane. In *Upadansha* painless papular eruption like those of large grain is present with little discharge.

Pradara Roga Nidana:

Tatra nidanam kaaranm iti uktam agre (Ca.Ni. 1/7)

Nidana is known as *Karana* (cause). Acharya Charaka says that first of all examine the *Roga* (Disease), then according to *Roga* examine the suitable drug.

“rogm adauv parichyetta toanantaram aushdhnam” (Ca. Su. 20/20)

Because without the complete knowledge of *roga*, proper *Chikitsa* (treatment) is not possible. Hence to examine *Roga* firstly *nidana* should be kept in mind & by the virtue of *nidana* the disease can be diagnosed & treated properly

“seti kartavyaatakah roga utpadak heturnidanam” (Ma. Ni. 1/8)

Generally, the causes which produce the diseases are kept under the category of *Nidana*. Due to *Nidanasevana* vitiated *Dosha-Dushya* causes the *Rogas*. It includes both internal & external causative factors. Acharya Charaka has clearly mentioned about causative factors of *Yonirogas*.

“nahi vatadrate yonirnarinam sampradusyat” AA (Ca.Ci. 30/115)

According to *Doshanuband*, Charaka, Madhav, Bhavprakash, Yogaratnakar etc. have classified *Pradara* into 4 parts.

“chaturvidham vyastastu vatadyayh sannipatata” (Ca.Ci. 30/210)

1. Vaitika Pradara
2. Paitika Pradara
3. Shleshmik Pradara

SannipatikPradara Each type of Pradara's, *nidana*, *lakshana* are described in detail in *Sambhitas*. Different Acharyas views regarding various Nidanas for 4 types of pradara are as follows:

S. No.	Nidanas	C.S.	S.S.	A.S.	A.H.	M.N.	Sa.S.	Ba.P.	Y.R.
1	Indigestion (<i>Ajirna</i>)	-	-	-	-	+	-	+	+
2	Taking food when previous meal not digested. (<i>Adhyashan</i>)	-	-	-	-	+	-	+	+
3	Excessive intercourse	-	+	-	-	+	-	+	+
4	Highly emaciated (<i>Atikarshan</i>)	-	-	-	-	+	-	+	+
5	Grief (<i>Sock</i>)	-	-	-	-	+	-	+	+
6	Excessive walking.	-	-	-	-	+	-	+	+
7	Excessive Traveling	-	-	-	-	+	-	+	+
8	Excessive Weight lifting	-	-	-	-	+	-	+	+
9	Excessive use of <i>sukta</i> (Vinegar)	+	-	-	-	-	-	-	-
10	Excessive use of <i>Mastu</i> (Whey)	+	-	-	-	-	-	-	-
11	Excessive in take of <i>Sura</i> (Alcohol)	+	-	-	-	-	-	-	-
12	Heavy, pungent & irritant food	+	-	-	-	-	-	-	-
13	Day sleep	-	-	-	-	+	-	+	+
14	Saline, Sour, Hot substances	+	+	-	-	-	-	-	-
15	Mental Work	+	-	-	-	-	-	-	-
16	Meat of domesticated & aquatic animals	+	-	-	-	-	-	-	-
17	<i>Krisarā</i> (Preparation of Rice & pulses)	+	-	-	-	-	-	-	-
18	<i>Pāyasa</i> (Preparation of milk & Rice)	+	-	-	-	-	-	-	-
19	Unctuous food	+	-	-	-	+	-	+	+
20	Mutually contraindicated food	-	-	-	-	+	-	+	+
21	Abortion	-	-	-	-	+	-	+	+

As in Ayurveda **Sweta pradara** is not a separate entity it is probably the symptom of so many diseases, hence the disease producing this symptom & it's *Nidana* & *samprati* will be same for the symptom **Sweta pradara**. On this basis *Nidana* of **Sweta pradara** can be classified in two groups:

GENERAL CAUSE: Acharya Charaka in *Yoninyapatchikitsa Adhyaya* has told that all type of Gynaecological disorders are due to improper conduct, menstrual disorder, genetic morbidity & divine factors.

“mitya chaaren taah strinaam pradusten aartvein cha,

Jaayante beejdoshachh shranu ta prathaka” (Ca.Ci. 30/8)

Also, in **Shusruta-**

Nidana is one of the basic principles in Ayurvedic line of treatment & one should get rid of *Nidana* in order to eradicate the disease.

Charaka, Susruta & Vagabhatta have some different opinions regarding the etiology of *Yonivyapad*.

In *Laghubhaya*, both *Madhvakara* & *Bhawmisa* followed *Susruta*'s description. In Sarangadhara only names of *Yonivyapads* have been mentioned not detailed description. According to *Acharyas* opinions about foresaid theme has been shown in the table:

CHARAKA	SUSRUTA	VAGABHATTA
1. Mithyācarā (improper conduct)	“Pravrdhalinga Purusham Yohatyarthmupsevate” (excessive indulgence in sex with a man having big size penis) Woman having Rūksa (dry) Durbala (emaciated/ weak constitution) body & young women doing excessive coitus with above said man.	Duṣṭabhojan (unwholesome food)
2. Ārtava Duṣṭi (Menstrual disorder)	-	Duṣṭartava (vitiated menstruation)
3. Bījadosa (Genetic Morbidity)	-	Bījadosa (Genetic factors)
4. Daiva (Divine factors)	-	Daivatah (Divine factors)
5. -	-	Visamāṅgśayana Bhṛśanaithunasevana (intercourse in improper position & excessive coital act)
6. -	-	Apadravya sevana (Artificial penis)

“pravardhlingam purusham ya atyaartham upsewyate, ruksha durbal bala ya tasyah vaayu prakupyati”

Sa dusto yonimashadya yonirogay kalpate, trayanam api doshanaam yathaswam lakshrentu”

(Su. U. 38/3-4)

Vishtir vyapdo yoner jaynte dushtbhojnaat,

Vishamsthan shayan bhrashmaithun shevanaih dustart vaadapdravyai beejdoshen daivata”

(A.S. U. 38/32, A.H. U. 33/27-28)

After the analysis of etiological factors, it is found that all the contributing factors of different authors are falling in one or other groups of Charaka's description.

1. **Mithya acara** (improper conduct)
2. **Artavadusti** (menstrual disorders)
3. **Bijadosa** (genetic morbidity)
4. **Daiva** (divine factors)

MITHYACARA:(Improper conduct).

The word *Acara* embodies itself the entire mode of living. The principles of dietetics & regimen including good conduct are concerned with maintenance of positive health. The improper conduct, or *Mithyacara* includes imbalance of all factors in terms of dietetics regimen & code of conduct. Also various environmental factors operating during embryonic life of a girl (congenital abnormalities) or at a later life also comes under this category. So, it can be divided in two groups:

1. *Mithya Ahara*

2. *Mithya Vihara*

1. ***Mithya Ahara*** (Abnormal diet): Abnormality in diet refers to excessive or inadequate diet along with non-congenial, unwholesome, unhygienic & incompatible food. Overeating by causing obesity & diabetes and the inadequate diet or malnutrition by nutritional deficiency, weakness or emaciation, both these factors overeating & malnutrition by virtue of increasing the *vata dosha* with vitiated *kapha* diminishes the process of *Dhatu poshan Karma* & increases the by product of *Rasa Dhatu*, i.e. *Shlesma*.

The diets & mode of living which are *Kapha vardhaka* are the main etiological factors for the *Sweta Pradara* as described in *Slesma Yonivyapad*. Due to excessive indulgence in *Shlesma Vardhaka Ahara*, *Kapha* gets vitiated increasing *Guruta, picchilta, snigdhta, sitata, sthirata* of *sthanik kapha*. Similarly, due to excessive use of *Vata Vardhaka Ahara*, the *sthanik Apanavata* gets vitiated increasing the *chala, sukshma & sitaguna* of *vata* & with this vitiated *vata-kapha*, the white discharge from *yonis* is likely to occur.

Likewise, in *Tridosha Yonivyapad*, due to excessive use of all the *rasas*, all *dosas* get vitiated & due to *sthanasansraya*, of *Kapha, Pitta & vata* different types of *srava* occurs.

When the *Parthiva & Jala* substances are taken in excessive quantity or more than requirement, then they increase *Kapha* in the body & that vitiated *Kapha* after getting placed in *yonis* produces *Sweta Pradara*. Among the six *rasas*- *Madhura, Amla, Lavana Rasas* are *slesma vardhaka* because of similarity in respect to their proto elements qualities & functions (Ca.Vi 1/6). The excessive practice of these three *rasas* can produce disorders like *Sweta pradara*. It is also found that *Amla, Lavana, & katu rasas* are *indriyoutejakas* so the diet containing these *rasas* may cause excitement in the genital organs or *sthanasansrayab* resulting in excessive white discharge per *vaginum*. Similarly, with the use of specific *doshavitiating* factors, aggravation of specific *doshas* causes specific discharge.

Kapha vitiating factors: Now one of the *guna Abhisyandi* (channel blocking substances) explained by Acharya Shusruta (Su.Su 21/27) are those which possess the capacity to produce *Kleda* in *Doshas, Dhatus, Malas & Srotas*. By *picchilta & guru Gunaitis* obstructs *Srotas (channels)* & retards successively *Dhatu Poshan* (Nourishment). The *Dravyas* which are *brmbhaniya* are *picchil, madhura, guru & Kledkara* (slimy). Under such *Dravyas* newly harvested rice *Navanna, Navasava & Aristas*, meat of *Mahish* (Marshy) & *Anupa* (Aquatic) animals, cow's milk & its different preparation comes. Varieties of sugar derivatives also fall under this group (Ca. Su 23/3-7). These *Dravyas* when used excessively more than requirement become the causative factor for vitiation of *kapha*. The intake of these type of *Aharadravyas* is *Agnimandyakara (weakness of digestive fire)* & produces *Ama (toxic substance)* which is being identical to *kapha* produces the symptoms of *Sweta Pradara*.

2. **MITHYA VIHARA:** In the mode of living body & mind both are considered as sense faculties. Body together with mind gets vitiated by excessive utilization, non-utilisation & wrong utilization of the sensory organs concerned. This causes an impediment to the respective sense organs. (Su.Sa 8/15). Wrestling with a person of superior strength, *adhikyayama* (violent exercise), *atimābhuna* (excessive coitus), *Atidhavana* (excess running), *atiadhmagamana* (excess walking), *atijagarana* (awake until late hours) *Yanavahanatisevana* (excess travelling) carrying heavy loads etc. All these activities created *dhatuksaya* & subsequent *Vataprakopa* (Su. Su 21/29).

Vegavidharana i.e. suppression of urges like micturation & of defecation or creating urges artificially, both hinder the natural force & direction of vata resulting in aggravation of it.

According to Charaka *Vegavidharana* is one of the causative factors for *Yonirogas*. *Vegavidharana* is a prime factor for *Vataviddhi* (vitiating) & any kind of *Yoninyapad* does not occur without vitiating of *Vata*. That is why Charaka says that first of all vata should be normalized in any type of Gynaecological disorders (Ca.Ci 30/116)

Divaswapa (day sleep), laziness, sedentary habits, avoiding physical exertion, these viharas are *Kaphadoshahardhaka* which comes under the causative factor of *Sweta Pradara*.

UNHEALTHY SEXUAL ACT: Now abnormal mode of intercourse i.e. coitus in abnormal body postures or with a weak or young women by man possessing good size penis, use of artificial organs for sexual orgasms i.e. *Apadranya sevana* (A.H. 33/27-29) these may produce local ulcerations, hyperaemia & infection which is responsible for various gynaecological disorders. Besides, these psychosomatic causes of gynaecological disorders IUCD, Diaphragms etc. can also be included under this group of etiological factors. These foreign bodies may produce irritation in the mucous membrane of vaginal canal & may cause infections in vagina which lead to *Yonirogas*.

UNHYGENIC CONDITIONS: The lack of health education & illiteracy are also some predisposing factors of *Yonirogas*. Regular baths & washing of private parts is important factor to maintain healthy condition of vulva & vagina. Therefore, to prevent recurrence of the disease, women are advised to keep clean and dry genital organs.

PSYCHOLOGICAL FACTORS (*Manasika*): Acharya Sarangdhara (Sa.S. Pu kha 1/18) has highlighted certain kinds of mental agonies of women originating from the matrimonial relationship which act as predisposing factor for originating this disease. Among these first two are such as:

1. *Adaksapurisotpannastriroga*
2. *Sapatnivibitastriroga*

2. **ARTAVADUSTI:** The word *artava* refers to ovarian hormones, ovum & menstrual blood. Menstrual blood is a result of endometrial changes brought about by hormones & reflects the status of reproductive systems as well as hormones. In this context *artava* refers to female hormones, especially oestrogen which is causative factor for number of gynaecological disorder.

3. **BIJADOSHA:** Abnormalities of sperm or ova, various chromosomal, genetic abnormalities come under this group.

4. **DAIVA OR GOD:** Invocation of God may cause *Yonirogas*, Acharya Charaka has explained that effect of what is done during previous life is known as *Daiva*. It is also seen that when it becomes difficult to find out exact etiology of the disease, God is said to be responsible for inflicting the disease.

SPECIFIC CAUSE: The *Vata- Kapha* provoking factors, & the etiology of some specific disease which produce the symptoms of *swetaPradara* are considered under specific cause. Beside this, *ChikitsaPrakarana* of *Strirogadhikar* of *Madhyam Khand* of Bhavprakash, explains *Kaphajpradara* as *Sweta Pradara* & describe their causes too which are as follows:

1. **Genital Causes:** -

- Uterus, Vagina, vulva – any inflammatory sign.
- Changes in Endometrium.
- Changes in Cervical Mucus membrane along with hyperaemia.
- Increase in glandular discharge.
- Due to increase activity of ovary and ovarian hormones, discharge of endometrical gland increases.
- Degenerative growth affects the mucus membrane of endometrium, which cause increased amount of discharge.

2. **Extra Genital Causes:** -

These are general causes such as

- Anaemia
- Constipation
- Abdominal Tumors
- Ascitis
- Piles

General causes for vaginal discharges according to Ayurveda and modern can be correlated.

<u>Ayurvedic View</u>	<u>Modern View</u>
▪ <i>Mithyahara and Krimidushtaahar</i>	• Infections like streptococcus, staphylococcus, trichomonas Monilial, gonococcus.
• <i>Mithyavihara, Divaswap, coitus in Vismasan, Apadravayasprayog, yoni prakshalan</i> with dirty water.	• Unhygienic condition of vagina.
• <i>Mithya&atiprayoga of garbhanirodhak.</i>	• Excessive use of contraceptives, CuT, Nirodh, etc.
▪ <i>Pradushtarva.</i>	• Hormonal imbalance.
▪ <i>Bijadoshacch.</i>	• Congenital causes.
▪ <i>Punah - punahGrabhasrava.</i>	• Repeated abortions
▪ <i>Daivacch – Bhagya Viparita</i>	• Invocation by God.

Tabular form of Sweta PradaraNidana –I

S. No	Dietic Cause	Regimenal Cause	Psychological Cause	Disease Cause	Infection Cause
1.	<i>Atirukshann Sevana</i> (excessive dry food)	Excessive indulgence in sex	Excessive thinking	Inflammation of uterus	Tricho-monas vaginalis.
2.	<i>Atilavan Rasa</i> (excessive salini)	Excessive uplifting heavy load	Anger	Prolapse uterus	Candida albicans
3.	<i>Atiamlarasa</i> (excessive sour)	Excessive traveling/walking	Fear	Displacement of uterus	-
4.	<i>Atiakatu Rasa</i> (Excessive Pungent)	<i>DivaSwap</i> (Sleeping During day time)	Grief	Miscarriage/ Abortion	-
5.	<i>AtisitaAahar</i> (Excessive cold)	<i>Vismasan</i> (Irregular posture)	Unsatisfactory sexual act	Early parturition	-
6.	<i>AtiushnaAahar</i> (excessive hot)	<i>Vegavidharan</i> (Suppression of natural Vegas)	-	Constipation	-
7.	<i>Ati Drava Padarth</i> (excessive liquid)	<i>Atikarshan</i> (excessively emaciated)	-	Anaemia	-
8.	<i>Atisnigdha</i> (excessive unctuous)	<i>Aaghat</i> (Assault)	-	Gonorrhoea	-
9.	<i>Guru Bhojan</i> (Heavy food)	<i>Atisita/ ushnadravya</i> (use of excessive hot/ cold substances)	-	Diabetes	-
10.	<i>VidahiBhojan</i> (irritant food)	Local unhygienic condition	-	Uterine fibroid	-
11.	<i>Adhyasan</i> (taking meal before digestion of previous meal)	Excessive use of contraceptives	-	Itching in vulva	-
12.	<i>Viruddhashan</i> (incompatible food)	Reading vulgar books	-	Intestinal worms	-
13.	<i>Madya/ Suktasevan</i> (Alcohol vinegar in take)	Seeing seductive films	-	Genital boils	-
14.	<i>Gramya/ AudakMamasa</i> (Domestic & aquatic animals meat)	-	-	-	-
15.	<i>Krishra, Payas, Dadhi</i>	-	-	-	-

Purvarupa (Prodromal Symptoms)

“purvarupam pragutpatti lakshanam vyadyei” (Ca. Ni. 1/8)

Symptoms which manifest themselves before the appearance of diseases (Premonitory symptoms) are known as *purvarupa*. After sitting of vitiated *dosha* in *dhatu* or *avayava*, & in the presence of favourable condition, and in the very beginning stage of *dosha-dushyaSammurchana*, *purvarupa* appears.

Purvarupa of *pradara/ asrgdara* or *slesmalayoninyapad* is not given in classical text, but *Angamarda* (malaise), *katigraba* (stiffness of back) *katisula* (Backache), *Yonipathsula* (pain in genital path) etc can be considered as prodromol symptoms, because neglecting these symptoms definitely give rise to *Asrgdara* or any type of *yoninyapad*.

Rupa (specific Symptoms)

“utpannyaadhi bodhkamaiv lingam rupam” A A (Ma. Ni. 1/7)

Symptoms when fully manifested & express the disease is called as *Rupa*. The disease which was not fully expressed in the *purvarupa* now shows specific characteristic of disease. It is very much important to know the sign & symptoms of disease to diagnose & treat them. In *Yogaratanakar&Bhavprakash*, general symptoms of *Pradara* along with their 4 types are described Clearly. AcharyaCaraka has also described the symptoms of 4 types of *pradara* with their doshik involvement.

General symptom of Pradara

Yogaratanakar has told that:

“asrigdaram bhavet sarvam sa angmardam sa vednam” A (Y.R. PradaraChiktsa)

Acharya Caraka has also told about the symptoms of 4 types of *Pradara*. In different Ayurvedic texts 4 types of *Pradara* are mentioned they are tabulated as follows:

Symptoms of VaitikaPradara – Table-I

S. No.	Lakshana (Symptoms)	Ca.	Su.	A.S.	A.H.	Ma.Ni.	Sa.S.	Ba.P.	Y.R.
1	<i>PhenilSrava</i> (Frothing discharge)	+	-	-	-	+	-	+	+
2	<i>TanuSrava</i> (Thin discharge)	+	-	-	-	-	-	-	-
3	<i>RukshaSrava</i> (Ununctuous discharge)	+	-	-	-	+	-	+	+
4	<i>SyavSrava</i> (Brownish black discharge)	+	-	-	-	-	-	-	-
5	<i>Arun Varna Srava</i> (Bricked discharge)	+	-	-	-	+	-	+	+
6	<i>KinshokodakSankashSrava</i> (Palasa Juice like)	+	-	-	-	-	-	-	-
7	<i>VedanaYuktasrava</i> (Painfuldischarge)	+	+	-	+	-	-	-	-

8	<i>Vedanarahitasrava</i> (Painless discharge)	+	-	-	-	-	-	-	-
9	<i>Kati sula</i> (Lumbar pain)	+	+	-	+	-	-	-	-
10	<i>Vanchansula</i> (Pain in growing region)	+	+	-	+	-	-	-	-
11	<i>HritParshv Sula</i> (Pain in cardiac & Chest region)	+	-	-	-	-	-	-	-
12	<i>Pristhasula</i> (Backache)	+	-	-	-	-	-	-	-
13	<i>Shroni Pradesh Sula</i> (Pelvic pain)	+	-	-	-	-	-	-	-
14	<i>SatodaSrava</i> (Painful discharge)	-	-	-	-	+	-	+	+
15	<i>PishitodakaSrava</i> (Meat washings)	-	-	-	-	+	-	+	+
16	<i>AlpalpaSrava</i> (Scanty discharge)	-	-	-	-	+	-	+	+

Symptoms of PaitikaPradara – Table-II

S. No.	Lakshana (Symptoms)	Ca.	Su.	A.S.	A.H.	Ma.Ni.	Sa.S.	Ba.P.	Y.R.
1	<i>Neel Varna Srava</i> (Blue discharge)	+	-	-	-	+	-	+	+
2	<i>Pita Varna Srava</i> (Yellow discharge)	+	-	-	-	+	-	+	+
3	<i>Asit Varna Srava</i> (Black discharge)	+	-	-	-	+	-	+	+
4	<i>RaktVarnaSrava</i> (Red discharge)	+	-	-	-	+	-	+	+
5	<i>AtiUshnaSrava</i> (excessively hot discharge)	+	-	-	-	+	-	+	+
6	<i>VednayuktaMuhur-MuhurSrava</i> (Painful frequent discharge)	+	-	-	-	+	-	+	+
7	<i>RugnaDahaYukta</i> (Burning Sensation)	+	-	-	-	-	-	-	-
8	<i>RugnaRogaYukta</i> (Redness)	+	-	-	-	-	-	-	-
9	<i>Rugna Trisha Yukta</i> (Thirst)	+	-	-	-	-	-	-	-
10	<i>RugnaMohaYukta</i> (Unconsciousness)	+	-	-	-	-	-	-	-
11	<i>RugnaJvaraYukta</i> (Fever)	+	-	-	-	-	-	-	-
12	<i>Rugna Brahm Yukta</i> (Giddiness)	+	-	-	-	-	-	-	-

Symptoms of KaphajPradara – Table-III

S. No.	Lakshana (Symptoms)	Ca.	Su.	A.S.	A.H.	Ma.Ni.	Sa.S.	Ba.P.	Y.R.
1	<i>PicchilSrava</i> (Slimy discharge)	+	-	-	-	+	-	+	+
2	<i>PanduVarnaSrava</i> (Pale colour discharge)	+	-	-	-	+	-	+	+
3	<i>ShlesmalSrava</i> (Mucoid discharge)	+	-	-	-	-	-	-	-
4	<i>AamyuktaSrava</i> (With mucus discharge)	-	-	-	-	+	-	+	+
5	<i>Guru Srava</i> (Thick discharge)	+	-	-	-	-	-	-	-
6	<i>SnigdhaSrava</i> (Unctuous discharge)	+	-	-	-	-	-	-	-
7	<i>SitalSrava</i> (Cold discharge)	+	-	-	-	-	-	-	-
8	<i>GhanSrava</i> (Dense discharge)	+	-	-	-	-	-	-	-
9	<i>Mandarujakar</i> (Dull Pain)	+	-	-	-	-	-	-	-
10	<i>SapichhaPratimamSrava</i> (Slimy discharge)	-	-	-	-	+	-	+	+
11	<i>PulaktoyapratimamSrava</i> (Like washing of paddy plant)	-	-	-	-	+	-	+	+
12	<i>ChardiYukta</i> (Vomiting)	+	-	-	-	-	-	-	-
13	<i>Arochak</i> (Anorexia)	+	-	-	-	-	-	-	-
14	<i>Hrillas</i> (Nausea)	+	-	-	-	-	-	-	-
15	<i>Svas</i> (Asthama)	+	-	-	-	-	-	-	-
16	<i>Kas</i> (cough)	+	-	-	-	-	-	-	-

Symptoms of SannipatikPradara – Table-IV

S. No.	Lakshana (Symptoms)	Ca.	Su.	A.S.	A.H.	Ma.Ni.	Sa.S.	Ba.P.	Y.R.
1	<i>DurgandhitSrava</i> (Foul Smelling discharge)	+	-	-	-	-	-	-	-
2	<i>PicchilSrava</i> (Slimy discharge)	+	-	-	-	-	-	-	-
3	<i>Pita VaranaSrava</i> (Yellow discharge)	+	-	-	-	-	-	-	-
4	<i>GhritSamanSrava</i>	+	-	-	+	-	+	+	-
5	<i>MajjaSamanSrava</i> (Like Bone marrow discharge)	+	-	-	+	-	+	+	-
6	<i>Vasa SamanSrava</i> (Like muscle fat discharge)	+	-	-	+	-	+	+	-
7	<i>KshaudraSamanSrava</i> (Honey like discharge)	-	-	-	+	-	+	+	-
8	<i>Harital Varna SamanSrava</i> (Bright yellow/ Golden yellow)	-	-	-	+	-	+	+	-
9	<i>KunapgandhiSrava</i> (Putrid smell discharge)	-	-	-	+	-	+	+	-

Sweta pradara or white discharge is a symptom of all gynecological disorders developing due to vitiation of *kapha* & *vata* (*Ayananda, Kamini, Acarana, Aticarana, Slesmala, Upapluta, Prasransini*). In all these diseases besides white discharge per vaginum, Specific clinical features of occurring disease is found. The word swetapradara itself denotes white discharge per vaginum, which is mainly found in Charaka's *kaphajyonivyapad*, which has resemblance with leucorrhoea.

“sa kuryat picchilam sheetaam kandugrast alpvednaam

Paanduvarna tatha pandupichila artavavahineem” (Ca. ci. 30/13)

Symptoms according to different Acharyas are given in tabular form:

S. No	Lakshana (Symptoms)	C.S.	S. S	A.S.	A.H	Ma.Ni.	Sa.S	Ba.P.	Y.R
1	<i>PicchilSrava</i> (Unctuousness)	+	+	+	+	+	+	+	+
2	<i>Sita</i> (Coldness)	+	+	+	+	+	+	+	+
3	<i>Kandu</i> (Itching in vulva)	+	+	+	+	+	+	+	+
4	<i>Vedana</i> (Pain)	+	-	-	-	-	-	-	-

The Symptoms of Sweta Pradara can be classified as follows:

1. *PratyatmaLaksana* (Cardinal Symptoms)

Pandu Varna/ Whitish discharge through vagina in excess.

2. *SthanikLaksana* (Local Symptoms)

Yoni Kandu, Yoni Tode, Yoni Sitalta, Yoni picchilta, Yoni Daba.

3. *Srava Janita Laksana* (Characteristic of Discharge)

PicchilSrava, Sita Srava, MandarujakarSrava, DurgandhiSrava, TanuSravaSnigdhaSrava, Ghana Srava, PhenilSrava, PitavarnaSrava, AvilantulaSrava.

4. *SarvadaihiLaksana* (General Symptoms)

SaririkRuksata, Kati Sula, udaradhabvedana, Janghavedana & GurutaAjirna & Aruchi, Frequent micturition, *RaktalpataHastapadadaba, Sirabsula, Utsabhani, Daurbalta.*

5. *MansikLakshan* (Psychological Symptoms):

Mansik Ashanti, Chid-chidapan.

1) *PratyatmaLaksana* (Cardinal Symptoms):

***Pandu varna*/ Whitish discharge in excess:-** In *swetapradara*, due to *kapha* provoking factor, *kapha* gets vitiated & due to *vata* provoking factors, *vata* gets vitiated & due to this *vataprakopa*, *Agni vaishamy* (disturbed digestive fire) occurs, which results in *Asamyakpachan of Aabar* (improper digestion) & due to *kapha* provoking factor, *Agnimandya* (weakness of digestive fire) occurs, hence *rasa*

(digestive juice) is formed in very little amount which is mixed with *Aama*(undigested material). In the process of *Dhatu (bodily tissue) formation* *Dhatvagni*(tissue fire) follows *Jatharagni* (digestive fire) so weakness of *Jatharagni* results in weakness of *Dhatvagni*, which ultimately causes *Rasa Dushti* , (*Rasa* is not formed in proper amount & the by product of *rasa* i.e. *kapha* gets increased) *Yonipatha* is already having “*kha-vaigunya*” which caused *atipravrityamakadushti* (hyperactivity) of *Aartavaha – Srotas*(uterine channels) with increased *Kapha&Apanvayu of yoni*.

2. *SthanikLakshan (Local Symptoms): -*

a) *Yoni Kandu (Itching in Vagina): -* It is main symptom found in *shlesmala yoni &swetapradara*. In Ayurvedic classical texts the main Reason behind *kandu* is *vata&kaphadosha*. When *Adra bhava* of *Kapha* meets the *shaitiyaguna of vata*, then *kandu* arises. It is also seen that in *Varsha ritu* (rainy season) due to *vataprakopa&AdrabbavKandu&* other skin diseases occurs. So in the case of *yoni kandu* which arises due to *vata-Kapha* vitiation, which is seated in *yoni patha*.

It is peculiar, uncomfortable sensation which occurs due to irritation of skin & mucus membrane of vagina & vulva. This symptom is also produced due to some microorganisms like *Trichomonas* or *Candida albicans* which are produce in unhygienic condition or occurs in multisexual partner.

b) *Yoni Toda:-*Aggravation of *vayuproduces* different types of pain in the body. The different types of pain is due to particular *sthan&Dhatu* like aggravation of *Vayu*, in *Mamasa&Medo Dhatu* (Muscle & fat tissues) produces *Todavatvedana&* Aggravation of *vayu* in *Asthi&Majja Dhatu* (Bones & Bones Marrow). Hence according to *samprapti&sthanVaishistyanasat* (Peculiar place), due to aggravation of *vata*. In *shlesmala yoni vyapad&swetapradara*, some patient complaint of *Bhedanvat&TodavatVedana* (Breaking and pricking pain in *prishth, Kati, Uru, Vanchan Pradesb & Yoni*.)

^^*gurvatanudyateatyarth.....maansmedogateanlie ,bhedo asthi parvanaam sandhisulam.....satataam ruk cha majja asthi kupite anile ,(Ca. ci. 28/32-33)*

c) *Yoni picchilta& Adrata: -* This due to characteristic of *Prathvi&ApaMahabhut*, In the vagina, friendly bacteria *Doderlein’s Bacilli* is present, which convert glycogen into lactic acid. This lactic acid destroys the external pathogens. When this friendly bacterium is present in normal amount, the external pathogens could not cause infection, but due to unhygienic condition, raised pH of vagina destroys this bacterium, resulting infection of various microorganism. This leads to excessive mucoid discharge causing *yoni* to be *picchil, Aadra&sital*.

d) *Yoni Daha: -* *Yoni Daha* is due to *pitta prakopa*. Burning sensation in vagina is due to infection of micro organism which cause inflammation of vaginal flora.

3. *SravajanitaLaksana (Characteristic of discharge): -*

Recent Researches have show that serrations from the uterus & upper part of vagina flow down & are reabsorbed in the lower parts of the vagina. This is the normal constant flow within the female organs which keeps vulva & vagina moist. (www. .com) Women who are over anxious &

fear from venereal disease & cancer tend to exaggerate this into something pathological types of vaginal discharge.

Types of vagina discharges: -

a) Tanu (Thin as against thick): - Here the discharge is Tanu i.e. watery. If kaphaparakop is accompanied with pittaparakopa of its dravaguna specially.

b) Pichchila (Slippery Lubricous, Slimy): - Here discharge is mucoid one. When kaphaparakopa specially of its pichchil&snigdha guna is accompanied with vataparakopa of its chala guna. This type of discharge occurs.

c) Styana (Collected into a mass, thick, bulky, gross):- Here discharge is thick & curdy. It denotes kaphaparakops in a stage of samavastha.

d. AvilTantula (Similar to water in a trench round the roots of a tree fibrous, sticky):- Here the discharge is muco-purulent one. If kaphaparakopa of samavastha is accompanied with vataparakopa, this type of discharge is occurring.

e. Durgandhipeeta (offensive, yellowish): - Here the discharge is purulent one. This type of discharge is seen if kaphaparakopa of samavastha is accompanied with pittaparakopa.

Vaginal discharge thus varies in its characteristics according to the doshadushti at its base. If one takes into consideration the type of discharge, it is easy to understand the underlying pathology to a certain extent. The genital tract is the seat of lesion & discharge is just a symptom of there.

4. SarvadaihiK Lakshan (General Symptoms):

a. UdaradhahVedana (Dragging sensation in abdomen):- Patient suffers from Dragging sensation & pain, below the umbilical region. It is possibly due to aggravation of RukshaGuna of Vata. As seat of vayu is below umbilicus. It also indicates the oedematous (Sothajanaka) Condition of yoni, because of accumulation of dosa in three Avartas of the yoni or in the garbhasaya particularly.

b. Pindikodvestana / Vedana&Guruta in Jangha due to movement. (Rolling pain in the calf muscle): - Irritated Vata circulating throughout the body produce different kinds of pain in the body. Among these Angasada & pindikodvestana are seen commonly. When Apanvayu in the pelvic region descends to the lower limbs produces pindikodvestana. Vedana&Guruta in jangha is due to Ruksha&ShitaGuna of Apan Vayu which aggravates during movement, while Guruta is due to Sita, Guru &AamaDosh of Kapha.

c. Ajirna&Arocaka (Loss of Appetite): - Due to Agnimandya at Jatharagni&Dhatvagni level, patient of Sweta Pradara suffers from Ajirna. Also due to Rasa Dushti& Psychological factors such as Bhrama, Dwesha, Cinta leads to Ajirna&Arocaka. It is an usual symptom of kapha which occurs in prasaravastha. AcaryaCharaka has included this symptom in SlesmaikPradara.

“sraivat asruksleshmalam cha ghanam mandarujakaram, Chhardi arochak hrillas swas kaa samanvitam”
(Ca.Ci.30/219)

DhatvagniMandata, improper digestion of food causes Aama formation. This Aamvastha leads to increased amount of kleda in the body which is excreted in the form of frequent micturition.

e. Raktalpata (Anaemia): -Rakta Dhatu is formed by Rasa Dhatu with the help of Ranjak pitta As there is DhatvagniMandya, Rasa is not converted into Rakta, while the byproduct of Rasa Dhatu, Kapha is excreted in much amount in Sweta Pradara. Malnutrition is one of the common cause of Sweta Pradara which certainly leads to Anaemic condition. This condition goes in cyclic form & reverse this whole process too. On the other hand, loss of Drava Dhatu in the form of Sukra, changes the consistency of blood & decrease in volume of blood produces Anaemia.

f. Daurbalata (Weakness): -Acaryas have described the PrakrtaSlesma as Bala and ojas in which Prana is domiciled. With the manifestation of Sweta Pradara irritated Kapha by Agnimadhya turns into Aama& after sequence of pathological condition kapha is expelled out through vagina, presumably loses the Bala of the body. Therefore, the patients of swetapradara suffers from general debility.

g. Hasta-pada-Daha (Burning Sensation in hand & feet): -Daha (burning sensation) is property of pitta. When ushan, Tikshnaguna of Bhrajak Pitta is increase it produces Daha. When some guna of shlesma is decreased & TejasGura of Pitta is increased it produces Daha. In Sweta Pradara, Rasa Dhatu kshayJanyaVataVridhhi diminished sloesma increased Pitta causes Burning sensation in hand & feat.

h. Kati Sula (Backache): - It is mainly a symptom occurring due to provoked *Apana Vayu* located in the waist region. First of all, the vitiation takes place in the main seat *pakvasaya(intestine)* then *katipradesa* near by its vitiation site produces katisula.

i. Sirah Sula (Headache): - It is mainly due to VataPrakopa resulting from *Dhatu Kshay* (lack of nutrition) many women show this symptom in menstrual disorder.

j. Utsahhani (Loss of enthusiasm): -*Utsaha* / enthusiasm is a property of *prakrit Vayu*. In Sweta Pradara due to vitiationofVataDaurbalaya(weakness),*Angamarda* (malaise),*Raktalpata*(anaemia) women have complaint of *utsahhani* or loss of enthusiasm.

5. MansikLakshan (Psychological Symptoms): -

a. Mansik Ashanti (Lack of concentration): Onset of Anxiety, with any reason or without any reason, causes *Mansik Ashanti* (lack of concentration) which causes excitation of *Mana* (subconscious mind) this excitation ultimately leads to contraction of muscles of Brain & uterus increasing blood flow in these organs. This increased blood flow hyperactivate the membrane of uterus, leading to hyperemia & increased secretion.

b. Chid-chidapan (Irritation): - Patient frequently become excited or overactive & possess unusual attitude. This is found predominantly in Sweta Pradara.

Yonivyapadas having *Sweta Srava* as a Symptom can be compared as follows:

S. No.	Yonivyapad	Classical Symptoms	Modern View
1	Shlesmala (All samhitas)	PanurPicchilSravaKanduyukta, AtiSital, Picchilyoni (su)	Trichomonas vaginitis
2	Uppluta (Ca, Va)	StodaPanduVarnaSrava/ Sweta Varan SravaSwetaPicchilSrava (Va)	Vaginal Thrush by Candida albicans or Monilial vulvovaginitis
3	Karnini (Su, Ma.Ni.Ba.P)	Yoni Paicchilya, Kandu	Cervical Polyp, Cervical erosion.
4	Tridoshaja (Ca, Su, Va)	SwetaPicchilSrava Yoni Daha, Sula Symptoms of all Dosas	Acute infective disorder of reproductive system or gynecological disorder developing due to other system disorder
5	Atyananda (Su, Ba.P, Ma. Ni, Y.R.)	Unctuousness & Itching	Nymphomania due to Neurosis psychosis or Menopause
6	Acarana (Ca, Su, Ma. Ni, Ba.P.)	Yonikandu (ca) Yonipicchilta& Yoni Kandu	Itching due to development of microbes & non-cleanliness of vagina
7	AtiCarana (Su, Ma. Ni, Ba. P)	Yoni Paicchilya Yoni Kandu	Sexual incompatibility due to psychological behavior.
8	Prasamsrini (Su, Sa)	Srava due to kshobhan / Sanchaklan	Excessive veginal discharge / displacement

SAMPRAPTI (ETIOPATHOGENESIS):

“yatha dustain doshen yatha cha anuvisharpata,

Nirvratira amaysyasau sampraptir jaatiraagati,” (A.H.Ni. 1/8)

Samprapti is the complete process of genesis of disease. After Nidanasevana, Dosha invades the dushya& completes the cycle of forming disease. *Samprapti, Jati, Aagati*, these all are synonyms.

Samprapti – *“SamyakPrapti”* or genesis of disease.

Jati– *janm* or origin.

Aagati- *“Aa SamantatGatibPrapti”* process of genesis of disease.

According to Acharya Chakrapani-

“vyadhi janak vyapar vishesh yuktam vyadhi janm eh samprapti sabden vachyam”(Ca.Ni.1/11)

Chakarapani Tika

The complete process of origin of disease is Samprapti. Also *“Dosaeva hi sarvesamroganamkaranam”*. Several etiological factors contribute to disease formation by vitiation of *Dosas*. Some

of them can be avoided by adopting proper precautionary measures while some factors like *kala, Karma, dosa* etc are mostly unavoidable. If the resistance power of the body against the diseases is functioning well, then only the body can fight against the etiological factors successfully, thereby maintaining sound health. But if the etiological factors are stronger than the power of resistance of the body, then these factors after vitiating *Dosa&Dushya* brings the process of disease inside the body. The involvement of all *Dosas* is the prime event as far as manifestation of disease is concerned.

“sarveshaam roгнаam nidaanam kupita mala” (A.H. Ni 1-14)

Acharya Shusruta has very clearly mentioned that a man with abnormal genitalia when indulges into coitus with a very young girl or women in an undesired uncomfortable position, then the *Vata* gets vitiated & this vitiated *Vata* starts accumulating in the Garbhashaya with the help of other two *Dosas* i.e. *Pitta & Kapha* to produce *Yoniyapad* (Su.U.38/2). Also, regarding the *Yoniyapad* it has been said that *Kapha* will not vitiate without the involvement of *vataDosa* (Ca.Ci.30/115). One thing should be kept in mind that *Vata* acts through Nerves, *Kapha* through *Rasa* and Irritation of any tissue vitiate the *VataDosh*. This vitiated *VataDosh* causes *Pitta&Kapha* vitiation, again *Kapha* vitiation leads to *Rasa Dushti* (malformed digestive juice). The modern science says the vascular changes both dilatation & exudation are influenced by Nervous impulses. According to type of irritation, the prime *dosha* will make difference to the inflammatory reactions accordingly, as *Vatapradhanta* leads to localization, whereas *VataKaphaPradhanata* leads to chronicity (*KaphaPrakopa* with its *manda, Styana, picchil&Vataprakopa* due to its *vishada, Ruksha, Kharagunas*.)

As mentioned earlier, leucorrhea is a symptom not a disease, thus etiopathogenesis of principle disease & the symptom would be same. According to Dr. P.V. Tiwari the etiopathogenesis of *shlesmikpradara* should not be correlated with *Sweta Pradara*, as in *shlesmikpradara* the excreted menstrual blood is slimy, pale, heavy, unctuous, cold, mixed with mucous while in *Sweta Pradara*, the slimy, unctuous discharge is not blood mixed. Its etiopathogenesis may be considered in following ways- *Kapha*, aggravated due to its own vitiating factors, influences or vitiates *Rasa Dhatu* of reproductive system, along with *Vata* provoking factors i.e. by excessive coitus, abortions, improper mode of life & dietics, imprudence during menstruation & unhygienic condition of genitalia produces, painless & white vaginal discharge.

The above etiopathogenesis has similarity with *ShleshmajYoniyapad* etiopathogenesis described by Acharya Charaka in *chikitsasthana*- chapter 30. It has similarity with the etymology *paandurepradareitiswetpradre*. Hence the etiopathogenesis of *ShleshmaYoniyapad* is specific to the pathogenesis of *Sweta Pradara*.

“kafo abhisyandi abhivradho yoni cha iti dusyet striyaan,

Sa kuryat picchilaam sheetaam kandugrast alpvednaam,

Pnduvarna atatha paandupicchilarta artvvhinimA” (Ca.Ci.30/13)

Use of *abhisyandi* (moisture producing) & *guru* (heavy) articles in diet & day sleeping etc aggravates *Kaphadosha* withholding *rasa*, and with other vitiated *Doshas* it settles in uterus & cervix and produces mucoid vaginal discharges. This discharge occurs due to *Amavastha* of *Kapha*, which has predominance in *Ghana* (thick) & *picchila* (slimy) properties.

Sweta (white colour) discharge is a symptom pertaining to *kaphaparakopa*. Although it is mainly *kaphaj disorder*, but accompanied with other Doshas *Vata or Pitta*. its signs & symptoms differs according to the (Doshapradhanya) prime Dosha.

“nahi vatadrate yonir narinaam sanprudusyati,”(Ca.Ci. 30/115)

This verse of Acharya Charaka should not be missed in *Sweta Pradara* also Only *kapha* provoking factors alone will not produce the disease without the involvement of *Vata* excess of discharge is produced when *Kaphaparakopa* especially of its *Pichhil&snigdhu* is accompanied with *VataPrakopa* of its *chalaguna*. Also, *Avil-Tantula* (similar to water in a trench round the roots of a tree, fibrous, sticky) where the discharge is *muco-purulent* one. If *Kapha-prakopa* of *samavastha* is accompanied with *VataParakopa*, then this type of discharge occurs.

Due to prescribed aetiological factors particularly *Kaphaja&Vataja* in nature weakens the *Jatharagni&* eventually form undigested material, (*ama*) commence to accumulate in *Amasaya*. The *Aahar Rasa* containing this *ama* will absorb through channels of intestine leading to *unnourished Rasadi dhatu*. If this state continues for long time, *Dhatu Kshayaproc* takes place which causes the secondary vitiation of *VataDosha*. As the main two reasons for disorders of *Vata* are:

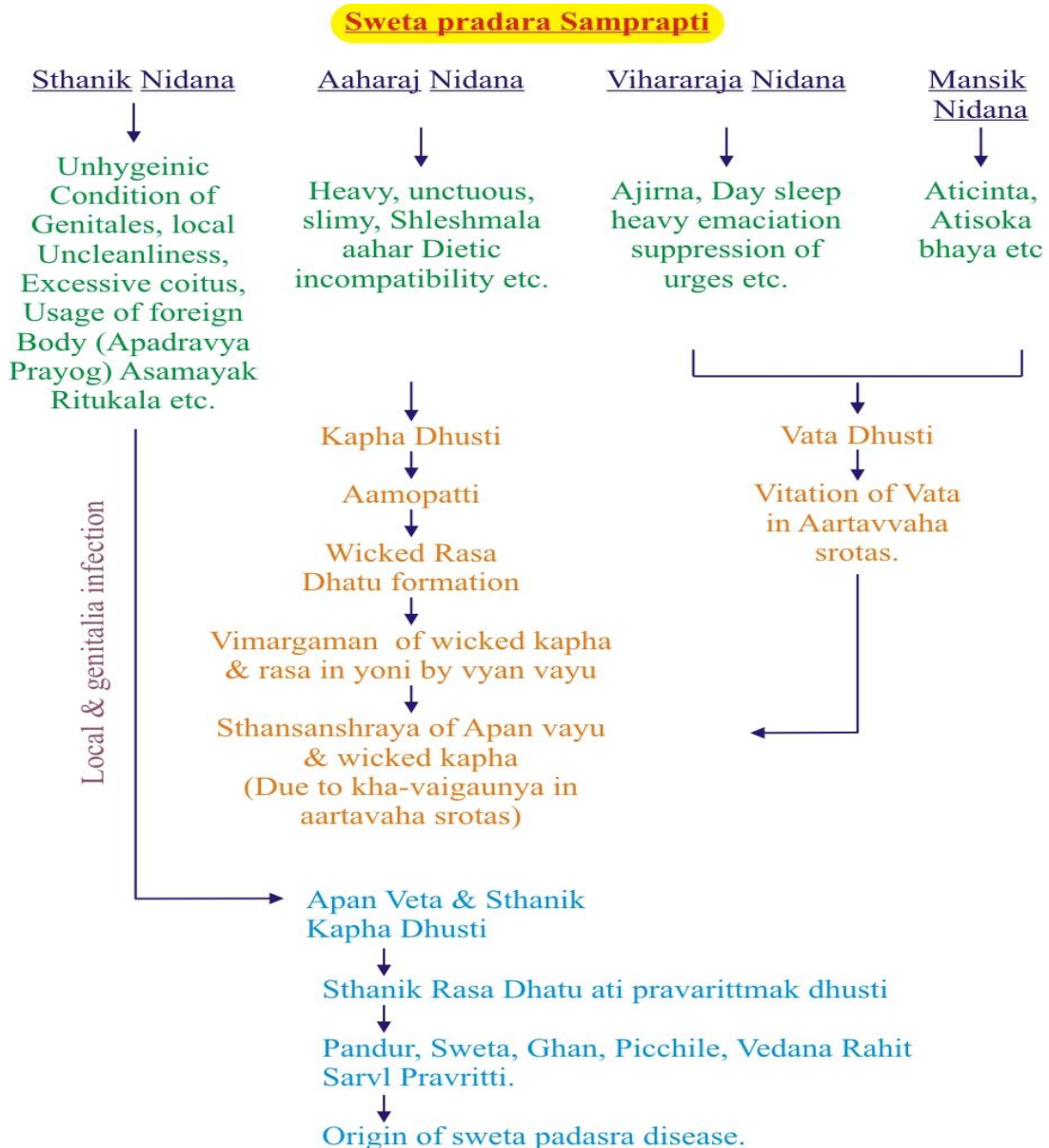
1. *Margavarodha* – i.e. obstruction either physiological or anatomical.
2. *Dhatukshaya*- i.e. lack of product concerned.

In *Margavarodha*, the governing force of genital tract which is *Apan Vayu* gets obstructed due to certain things which hamper the activity of *Apan Vayu*. The above two factors are responsible for the vitiation of *Vata*. *Kapha Dosha* is causative factors & *Vata Dosha* is initiative factor in *Sweta Pradara*. *heavy &unituous diet* provokes *Vata Dosha* which carry *kaphaDosha&* suppression of urges provokes *VataDosha* which carry *KaphaDosha* in *Yoni/ Genetalia*. Due to *Aashraya-ashrayi Bhava*, the *rasavahaSrotas* expels the *DushtaKapha*, by the hyperactivity of *Vata* or due to *chalaguna* of *Vata* which causes *Atipravritatmak* (hyperactivity) *Srotodushti*. This leads to *slimy, unituous, discharge* along with *wetness*.

In *Sweta Pradara*, the *Jatharagni* get weakens due to *kapha-vata* provoking factors. As *jatharagni* is the principle *Agni*, which regulates another *Agni*. As this *Jatharagni* diminishes, producing *Ama*, which also diminishes *Dhatwagni*. This weakened *Jatharagni&* *Ama*, cause *Rasagnimandya* producing *Rasa Dhatu* incorporated with *Ama*. This *Ama Rasa dhatu* get seated in *Garbhasaya* which is the *mool* of *Artava-ahasrotas*, producing discharge from *yonis* or when in a state of *Aamolpatti* women again overindulge in provoking factors of *Sweta Pradara*. This *ama* tend to exaggerate into *Amavisha* (toxic). This *Amavisha* circulates all over the body through *RasavahaSrotas* by the motive force of the body i.e. *vyanvayu* in *Prasarvastha*. Due to circulation of *KaphapradhanVata* (*dosha*) produces *Kha-vaigunya* in *Aartavahasrotas* which results in vitiation of *kapha&apanvayu*. As *mool* of *AartavahaSrotas* in *Garbhashaya & Aartavahi Dhamani*, which resides in lower part of the body. This leads to hyperactivity of *Apan Vayu* along with vitiation of *kapha* producing excess of *Dushta Rasa dhatu* locally in *genetalia*. In this series of disorders, the malformed *Rasa dhatu*, also made the successive *Rakta Dhatu* wicked leading to *diminution* of *Rakta*. In this way systemic & local *Dosha* gets seated (*Stansansvaya*) in *mula* (root) of *AartavahaSrotas* i.e. *garbhasay*. This *Dosha-DushyaSammoorchana* leads to *Pandu Varna, Sweta, Ghana, Pichchilsrava* excretions along with other symptoms such as *itching, backache* etc.

In Sweta Pradara, wicked Rasa Dhatu is formed in Garbhasaya, which is responsible for ShleshmaVridhhi. Shleshma is also produced due to provoking factors of Amashaya, hence it is Amashayoth Disorder. Due to Kha-vaigaunyaAartavvahaSrotas, AamashayothKaphaDosha gets seated in Yoni, producing AtipravrittattmakSrotodushti leading to this disorder. The Samprapti of swetaPradara can be summarized as follows

Dosha- kaphavata
 Dushya- Rasa & RaktaDhatu
 Srotas- AartavvahaSrotas
 Agni- Mandagni
 Srotodushti- Atipravrittattmak
 UdbhavaSthana- Aamashaya
 Adhithana- Yoni, Apatyayapath
 Vyadhiswabhav- Chirkari
 Avastha- Saam



Glimpse on Excreted Material of Sweta Pradara:

The anatomical basis of body i.e. **Sapta Dhatus** flourishes through the important constituents of food while the excreted materials are formed through the collected unimportant part of bodily function. The **Doshas** are the physiological basis of body & are described in two different contexts, first one for handling the important physiological function, & other one in relation to the excreted material (Ca.Su 28/4) for e.g **Vayu** as *anna mala*, **Kapha** as *Rasa mala* & **pitta** as *Rakt mala*.

Now, one of the important functions of *Rasa dhatu* is its continuous flow. This property is seen in branches arising from heart which have continuous flow of *Rasa Dhatu*. Now when this *Rasa* dribbles from end branches of *RasavahaSrotas*, it has no more property of continuous flow, which is the main characteristics of bodily *Rasa Dhatu*. So, when this dribbled product solidify it is known as waste product of **Rasa Dhatu** i.e. *KaphaDosh*. This is the product which is formed in excess amount in *Sweta Pradara*, due to intake of *Kapha* vitiating factors, & weakness of digestive fire. This vitiated *Kaphadosha* along with vitiated *vata* decreases the absorption of *Poshak Rasa dhatu* as normal condition of *vata* is responsible for *Dhatu vyuban*. It can be understood as *Apamayu* plays a crucial role in *Dhatuposhan* process, by absorbing the essential nutrients and by excreting the waste products (by *chalaguna*). In the condition of *Sweta Pradara*, vitiated *Apan Vayu* & its hyperactivity hampers the formation of *Poshya/Sthayi Rasa dhatu* & consecutively increases the *Sthool mala kapha*. Lack of absorption of *Poshakrasa* hampers the formation of preceding *Dhatu, Rakta*. This *RaktaKshaya* in patients causes the general debility & anaemia.

Here one thing should be noted that *kapha* vitiating factors alone couldn't cause hypersecretion. *Snigdhabata* (slimy), *Guruta* (heavy), *Shitata* (cold), *Sthirata* (immovable) properties of *kapha* are opposite to the property required for movement. Any visible motion requires the involvement of *VataDosh*. So any movement couldn't take place without the involvement of *Vatadosha*.

As we have already discussed that *ChalaGuna* of *Vata* is the main property which decide whether the action going on is due to vitiated *VataDosh* or due to *KaphaKshaya*. One thing should be kept in mind as *ChalaGuna* & *ShitaGuna* are inversely proportional, & hyperactivity shows the involvement of increased *chalaguna* of *vata*. So *Shita* shouldn't be considered as property of *VataDosh* as *Shitata* is not the property of substance which makes to flow but is a property of a substance that is flowed out.

“dosha prakti vaiyeshyam niyatam vridhi lakhanam, Doshanam prakatir hanir vridhi parikshyate,”
(Ca.Su.18/54)

MODERN DISEASE REVIEW

Leucorrhoea

Leucorrhoea is a common problem entered in routine clinical practice all over the world. Most of the women complaint of leucorrhoea rather than any other gynecological problem. It may occur at any age and affect almost all women at some times or the other in their life span. The term leucorrhoea should be restricted to these patients in whom the normal vaginal secretion is increased in amount. It is not a disease but a symptom of the manifestation of ovulation or of a local or systemic disorder.

The word leucorrhoea is derived from the greek word **“Leukorheia”** from combination of the two

words *leukos* & *rheein*. *Leukos* means white and *rheein* means running or to flow. Hence, running of white or sticky substance is called Leucorrhoea.

(Sted man's medical dictionary)

Normally, a small amount of vaginal discharge is present in every woman to moisten the vulva and vaginal flora and for preventing the growth of infective organisms. Complaint of discharge depends very much on the ideas, power of observation and fastidiousness of individual women. Women who are over anxious, introspective, or suffering from fear of venereal disease and cancer tend to exaggerate normal discharge into something pathological conditions.

Definition -

Leucorrhoea is strictly defined as an excessive normal vaginal discharge. This is a symptom of pouring out discharge per vagina other than blood urine or stool. Leucorrhoea in the strict sense of the word means excessive amount of normal secretions, but it is loosely applied to include both excessive physiological and pathological discharges. A common gynaecological symptom is a blood free vaginal discharge which is indicative of some abnormal or pathological process in the genital tissues. Excluded thereby from classification under this term is of sufficient quantity to soil underclothing. (Text book of gynaecology by John I. browar 3rd edition) Leucorrhoea should full fill the following criteria -

- The excess secretion is evident from persistent vulval moistness or staining of the under garments, brownish yellow on drying need to wear a vulval pad.
- It is non-purulent and non-offensive.
- It is non-purulent and never causes pruritis.

Leucorrhoea was formerly described as acute catarrh of vagina. (Diseases of women, by Alfred galabim). Recent investigation has shown that secretions from the uterus and upper part of the vagina flow down & are reabsorbed in lower parts of vagina. This is the normal constant flow within the female organs. The whitish discharge is however caused by the presence of infection in any of these tissues & variety of other factors. The condition may continue for weeks or months at a time. (www.boobargain.com)

A woman sometimes complains of discharges when she really means vulvalodour. Vulvalodour is a normally secondary sex character arising partly from the secretion of bartholin's gland but mainly as a result of the action of bacteria on the secretion of apocrine glands. It affects the psychology of the patients becoming an obsession difficult to eradicate.

Cervical discharges and uterine discharges which are produced as a result of ovarian & is goverened by hormonal balance. Though the vagina itself does not have any glands but the secretion of sweat glands & the apocrine sebaceous glands of the vulva, specially the racemose glands of bartholin's and transduate from the vaginal epithelium which constitute the discharge of vaginal canal is strongly acidic. That's why this depends mainly two things viz. 1) vaginal flora 2) the availability of oestrogen. The microorganisms like lactobacillus are usually available in the lower third portion of cervical canal but the upper part of the vaginal canal, fallopian tubes, uterine cavity and cervical canal are usually free from other microorganisms. (Text book of gynaecology by Willfredshaw)

The cervical secretions are alkaline in nature and may neutralize the acidity of vagina, other organisms such as yeast fungus, enterococci, leptothri are occasionally traced out during the sexual life. But Doderlein's bacilli should be present during the sexually active phase but before puberty and after menopause Doderlein's bacilli are absent.

CHARACTERS OF PHYSIOLOGICAL SECRETIONS

Normal physiological discharge:

The discharge normally present in the vagina and vulva which is a mixture of secretions from fallopian tubes, uterus, cervix, vulva and vagina and it varies in amount and character with ovarian function of individuals.

1. Amount of discharge

The amount of vaginal discharge is considered to be normal if it is just sufficient to keep the vagina and labia minora moist without staining or moistening the under clothes (Shaw). The amount doesn't usually increase more than 0.5 ml.

2. Odour of the discharge:

The normal vulval odour is from the action of bacteria on the apocrine sex glands.

3. colour of the discharge

Normal vaginal discharge is white but stains yellow or pale brown.

4. Composition of vaginal discharge

The normal components of vaginal secretion are described as below-

- a) The secretions from sweat and sebaceous glands of the vulva and vagina.
- b) Transudation from vaginal epithelium.
- c) Desquamated epithelial cell layer (cell debris carbohydrate), Doderlein's bacilli (lactobacilli)
- d) Mucus secretion (which is alkaline from cervical mucosa)
- e) Watery discharge from endometrial tissue.

5. pH of vaginal discharge

Normal vaginal secretions are acidic in nature due to influence (production of lactic acid) of Doderlein's bacilli over the glycogen content released from cornified (desquamated) epithelial cells. The normal pH of vaginal secretion of a woman in her reproductive life is 4.5. It varies according to age and development of genital organs as it is 5.7 in the new born and reaches as 6.8 in childhood and falls to puberty. Again, it increases upto 7 after menopause.

The acidic nature (low pH) of vaginal flora has a great importance in keeping it non infective. Doderlein's bacilli are the only organism, which can survive in such an acidic media preventing the growth of other pathological organisms. Conditions in which vaginal pH is raised in normal woman during their reproductive age, is described as below

- a. During menstruation, when the cervical and endometrial discharge which is alkaline tends to

neutralize the vaginal acidity.

- b. After abortion or labour, when the alkaline lochia has a similar effect.
- c. When an excessive cervical discharge occurs from endocervicitis, cervicitis or erosion of cervix.

6. **Secretion from fallopian tube**

The columnar epithelial cells, in the innermost layer of fallopian tube, secretes serous type of protein mixed fluid. But it is so less that it can never low downs and increases or becomes a cause of vaginal discharge.

7. **Secretion from the corpus or endometrium**

During secretary phase of a menstrual cycle a slight alkaline water discharge secreted from the endometrial glands. The endometrial secretion is scanty and watery.

8. **Secretion from the cervix**

Cervical secretion is normally mucous type and alkaline in nature and secreted from the columnar layer of cells. It is dependant on ovarian activity and cervical vasularity. Maximum discharge is present during ovulation or in the peak level of oestrogen phase.

The physical and chemical properties of the cervical secretion changes with menstrual cycles and with pregnancy. The cervical glands secrete alkaline mucus with PH 7-8 The mucus is rich in fructose, glyco protein and mucopolysaccharides. It also contains sodium chloride. The fructose has got nutritive function to the spermatozoa under oestrogenic stimulation, glycoprotein network is arranged parallel to each other thus facilitating sperm ascent. Cervical mucus contributes significantly to the normal vaginal, discharge.

9. **Discharge from vagina**

Consists of mainly desquamated epithelial cells, which liberate glycogen. The lactobacilli metabolize the glycogen to lactic acid. Vaginal transudate i.e discharges from the tissues and capillaries of the mature vagina is also a source of vaginal discharge. The vaginal secretion consists of tissue fluid, epithelial debris, some leucocytes (never contains more than an occasional pus cell) electrolytes, protein, and lactic acid (in a concentration of 0.75%) Apart from Doderlein's bacilli it contains many a pathogenic organism including Cl. welchii. The glycogen content is highest in the vaginal fornix to the extent of 2.5-3mg and is lowest in the lower third being 0.6-0.9mg percent.

10. **Discharge from vulva**

Discharge from vulva is the secretions from greater vestibular glands of skein and bartholin'sglands. Skein's ducts and considerable anumber of mucous crypts secretions are present during sexual excitement.

DEFENCE OF THE GENITAL TRACT

As there is free anastomosis between the lymphatics and blood vessels, the infection of one pelvic organ usually spreads to the other more frequently. There is direct communication of the peritoneal cavity to the exterior through the vagina. Inspite of these, the frequency and intensity of pelvic infection is kept

lowered by the defence mechanism.

Vulvaldefence

- Anatomic – (i) Apposition of the cleft by labia
(ii) Compound racemose type of Bartholin's glands.
- Physiologic – (i) Fungicidal action of the secretion (undecylenic acid) of the apocrine glands
(ii) Natural high resistance to infection of the vulval and perineal skin.

Vaginal defence

- Anatomic – (i) Apposition of the anterior and posterior walls with its transverse rugae
(ii) Stratified epithelium devoid of glands.
- Physiologic This is maintained by the hormone oestrogen.

At birth, under the influence of maternal oestrogen circulating in to the newborn, the vaginal epithelium become multi layered. The desquamated epithelium containing glycogen is converted in to lactic acid probably by enzymatic action for the first 48 hours. Subsequently, the Doderlein's bacilli appear probably from the gut and convert the glycogen into lactic acid. As a Result, for about 10-12 days following birth, the vaginal defence is good and infection is unlikely.

Thereafter and up to puberty, there is circulatory oestrogen. The vaginal epithelium reduced to few layers; glycogen is absent and also the Doderlein's bacillus. The vaginal pH becomes neutral or alkaline. During the reproductive period with high oestrogen, the vaginal defence is fully restored. But again, in post menopause after the withdrawal of oestrogen, the vaginal defence lost.

It should be emphasized that only the Doderlein's bacilli can grow in the acid media with pH 4-4.5. But when the pH increases, the other organisms normally present in the vagina will grow.

Defence of the Vagina

Character stics	Newborn (0-10) days	up to puberty	Child bearing period	Post menopause
Epithelium	Multi layered	Thin	Multi layered	Thin
Glycogen	++	(-)	++	(-)
Doderlein's bacillus	++	(-)	++	(-)
pH	Acidic (4-5)	Neutral or alkaline (6-8)	Acidic (4-5)	Neutral (6-7)

The vaginal defence is lost

- (i) Following 10 days of birth till puberty is reached.
(ii) During reproductive period – in the following situation.

During menstruation – The vaginal pH becomes increased due to contaminated blood and fall of oestrogen.

The protective cervical mucus disappears and the endometrium sheds. Following abortion and childbirth contaminated lochia increases the pH. The raw placental site, inevitable tear of the cervix, bruising of the vagina and presence of blood clots or remnants of decidua favors nidation of the bacterial growth. The general resistance is also lowered somehow.

(iii) During menopause.

Cervical defence

Anatomic – (i) Racemose type of glands

(ii) Mucus plug

Physiologic – Bactericidal effect of the mucus

Uterine defence

(i) Cyclic shedding of the endometrium

(ii) Closure of the uterine ostium of the fallopian tube with slightest inflammatory reaction in the endometrium.

Tubal defence

Anatomic – Integrated mucus plicae and epithelial cilia.

Physiologic – Peristalsis of the tube and also the movement of the cilia are towards the uterus.

Types and causes of Leucorrhoea:

According to modern medical treatises, the leucorrhoea can be divided into two types.

(A) Physiological and

(B) Pathological

A. Physiological Leucorrhoea:

Certain amount of mucoid secretion is always present in the healthy vagina to keep the canal moist and this consists of white coagulated material and examination of this contents reveals squamous epithelial cells and stratified squamous epithelium of vagina and the acidity produced after a great resistance for infections. Any alternation by the pathogenic organisms leads to invasion when this defensive mechanism is disturbed. Physiologic causes can be divided into following types:

1. New born babies
2. At puberty
3. Sometimes in adolescence
4. At the time of ovulation.

5. During proliferative phase of menstrual cycle. (premenstrual phase)
6. From sexual excitement.
7. during pregnancy.
8. At puerperium.
9. After abortion.

1. **Leucorrhoea in new born babies**– Due to presence of high level of maternal oestrogen content in some new born babies, vaginal mucosa gets much thickened (1-15 days). this physiological leucorrhoea of the new born subsides within a few weeks, when the maternal oestrogen abates & no treatment is needed for that.

2. **At puberty**– Physiological leucorrhoea may also occur at puberty. For sometimes prior to menarche the vagina is influenced by rising oestrogen level. Thickens & desquamated vaginal epithelium also causes discharge. Additional discharge is due to clear mucus secreted from the recently activated endocervical glands. Cyclic leucorrhoea is entirely physiological and is rarely accompanied by symptoms of irritation and is simply the earliest manifestation of the beginning of cyclic ovarian activity and oestrogen secretion.

3. **In adolescence**– The effects of oestrogen is to stimulate cervical columnar epithelium to produce mucous, which manifests as a symptom of leucorrhoea. It is profuse at mid cycle when ovulation is coincident with a high level of oestrogen.

4. **During ovulation**- Cyclical changes takes place in the vaginal and cervical epithelia under the influence of the oestrin peak at ovulation period, which causes excess vaginal discharge. According to Jeffcoate it depends upon the phase of menstrual cycle as well as upon the individual person.

5. **During proliferative phase of menstrual cycle** (premenstrual phase)– premenstrual pelvic congestion and increased mucus secretion from the hypertrophied endometrial glands leads to excess secretion.

6. **From sexual excitement** – Regardless of the general state of health of local condition within the vaginal canal, individual variations occur in amount of discharge produced during sexual excitement. Emotional outburst sometimes results in increased amount of vaginal secretion also.

7. **During pregnancy**- leucorrhoea during pregnancy is due to disturbance of oestrogenic function distinguished by reduction in the lactic acid content of the vagina and an increase in the transudation through vaginal walls. The discharge is increased during pregnancy due to increased hyperaemia and glycogen content of vagina which provide a better media for the growth of candida, trichomonas and other organisms.

8. **Puerperium**- At puerperium or after abortion, the flow of alkaline, tends to neutralize the vaginal acidity deranging the growth of doderleins bacilli. As a result of forceful childbirth, the cervix becomes severely lacerated. The streptococci, which are present in limited number in the non pregnant state of vagina seem to proliferate in the vaginal secretion as the hormones of pregnancy alter the pH towards the alkaline state.

Doderlein's bacillus

It is a rod-shaped Gram-positive bacillus, which grows anaerobically on acid media. It appears in the vagina 3-4 days after birth and disappears after 10-14 days. It appears again at puberty and disappears after menopause. It probably comes from the intestine. Its presence is dependent to oestrogen and its function is to convert the glycogen present in the vaginal mucosa into lactic acid so that the vaginal pH is maintained towards acidic side. This acid pH prevents growth of the other pathogenic organisms.

physiological changes showing table according to age -

Age	Oestrogen	Glycogen	pH	Flora
Birth of 2 Weeks	+	+	Acidic 4-5	Sterile Doderlein's Bacilli Secretion Abundant
2 Weeks to Prepuberty	-	-	Alkaline > 7	Doderlein's Bacilli Absent Secretion Scant
Puberty Appears	-	+	Alkaline Acidic	Sparse, Coccal Rich Bacillary
Reproductive Period	++	+	Acidic 4-5	Doderlein's Bacilli Appear Secretion Abundant
PostMenopause	-	-	Neutral or Alkaline 6->7	Doderlein's Bacilli Absent Secretion Scant

The Vaginal pH:

The vaginal pH varies during different phase of life. The pH is more towards acidic during the child bearing period and ranges between 4 to 5.5 with an average of 4.5. There is a drop of 0.5 during ovulation. In the past and premenopausal phase, it again goes high then through out the menstrual cycle little change occurs in the vaginal pH. The pH is highest in the upper vagina because of contaminated cervical secretion (Alkaline). Thus, the pH of the vaginal canal too, differs at different stages and in accordance to the age, which is given as below. Karl Johen and Karmkay report variation in pH in 1955 in different conditions as follows:

(1)	Normal vaginal pH	3.8 to 4.2
(2)	Four hours after coitus and four hours after Douche	4.5 to 4.7
(3)	Trichomonas vaginalis	5.5 to 6.5
(4)	Candidiasis	5.0 to 6.5
(5)	Cervical erosion	5.1 to 7.5

Thus, an admixture of the vaginal, the cervical and the endometrial discharges as well as the oestrogen production are too important factors, on which the vaginal acidity depends very much. Secondly the conversion of glycogen in the exfoliated squamous epithelial cells to lactic acid by the Doderlein's bacilli depends on oestrogen. So totally the pH of the vagina

depend mainly on two things (1) Vaginal flora (2) The availability of glycogen in the exfoliated squamous epithelial cells to lactic acid by the Doderlein's bacilli depends on oestrogen. So totally the pH of the vagina depends mainly on two things (1) Vaginal flora (2) The availability of oestrogen.

PATHOLOGICAL LEUCORRHOEA

The causes of pathological leucorrhoea can be divided as follows -

- I. General health causes (about 1/3 one third)
- II. Genital causes (about two/third 2/3)

General health causes -

- a. Ill health and under nutrition.
- b. Dys functional (endocrinal, marital disharmony and psychosomatic).
- c. Psychological.
- d. Tuber culosis.
- e. Diabetes.
- f. Worm infection.
- g. Anemia.
- h. Chronic dysentery.

Genital Causes/Pelvic factors: Pelvic factors include involvement of entire genital tract. The incidence of excessive vaginal discharge in general population varies from 15-54%.The incidence of causative factor for pathological leucorrhoea are shown in the following table as described by Dawn (1993).

CAUSES	INCIDENCE
I. GENERAL FACTORS	1/3 RD
A) Ill health, under nutrition	25.4%
B) Dysfunction of female hormones	7.0%
C) Psychological conditions	0.6%
II. PELVIC FACTORS	2/3 RD
A) Vulval growth & ulcer	1%
B) Vaginitis	19%
C) Cervical erosion	20%
D) Chronic cervicitis	7%
E) Cervical carcinoma	1%
F) Uterinetumour	1%

G)	Genital prolapse (polyp, fibroid, adenomyosis)	10%
H)	Contraceptives	2%
I)	Pelvic inflammation (loop, conventional, oral)	2%
J)	Pregnancy	3%

Detailed description of each of the factors are given as follows-

1. GENERAL FACTORS- Debilitating diseases, as tuberculosis, abdominal operation, rheumatic fever etc. by their chronicity decrease general body health increasing vaginal cellular desquamation increasing the amount of discharge. causes will be different in different age groups are as given below:

- **In children:** presence of foreign body in vagina, gonorrhoeal infection, thread worm infestation and diphtheria cause excessive discharge.
- **In young virgins:** general debility, anaemia, and hormonal disturbance will be the causes.
- **In nulliparous & non virgins:** cervical and vaginal infection due to gonorrhoea and trichomonas, general debility and endocrine imbalance are the causes of leucorrhoea.
- **In parous women:** infected cervical lacerations and all the above-mentioned causes. Genital causes involve the genital tract i.e.
 - (a) Vulval: Vulval growth, ulcer, unclean personal hygiene and masturbation.
 - (b) Vaginal: Irritant douche, tampons, foreign body, sexual excess, passary etc. Specific infection: In the vulvo vagina like trichomoniasis, moniliasis, gonococcal, amoebic, heamophilus and non-specific infection
 - (c) Uterine: Tumor (polyp, fibroid, adenomyosis) prolapse, carcinoma, loop, endometritis and pyometra.
 - (d) Cervical: Chronic cervicitis, erosion and carcinoma.
 - (e) Others: Pelvic inflammatory disease (retained contraceptive measures, decubitus ulcer, urogenital prolapse and prolonged use of systemic or local vaginal antibiotics. Pathological leucorrhoea is always associated with the infection. The victim of leucorrhoea can be of any age. For the better understanding and descriptive purpose leucorrhoea is divided as follows:

- (1) Leucorrhoea in children.
- (2) Leucorrhoea in adults.
- (3) Leucorrhoea in menopausal females.

(1) Leucorrhoea in children:

Leucorrhoea in children is rarely seen, usually it is uncommon to find leucorrhoea before the puberty. Usually if it is associated in infancy it is under the effect of maternal oestrogen of following things can be suspected which give rise to Leucorrhoea like Granulosa cell tumour, gonococcal infection, new growth, sarcoma & foreign bodies.

(2) Leucorrhoea in adult:

Sexually active phase lies in between 15-45 years of a woman's life where most of the infections may invade the female genital tract change in the vaginal mucosa is brought by alterations in ovarian function because release of its hormones is not constant through out the women's reproductive age. A part from hormonal theory there are certain family planning measures also which give rise to Leucorrhoea. Unsatisfied sexual gratification is predisposed in the form leucorrhoea in an unmarried woman and in the married group, organism like gonococci, or trichomonas vaginalis also invite the infection through sexual act. Benign growth like uterine or cervical polyps or other infections Resulting into endocervicitis, erosion etc. Common infections like streptococcal or staphylococcal or specific infections like syphilitic or tuberculosis ulcer, and trichomonas vaginalis may also be seen in this age. Fungal infections like candida albicans may also cause the leucorrhoea. In adult females also foreign body insertion is found quite common in the form of passaries. Tampons I.U.C.D.'s, loop etc swabs knitting needles diaphragm etc or spermicidal jellies, or chemical used for vaginal douche can also lead to leucorrhoea or burns. Trauma and tear may lead to

inflammatory changes these underlying causes may full into physical and chemical

(3) Leucorrhoea in postmenopausal phase:

All malignant conditions like carcinoma of cervix, carcinoma of body of the uterus, granulosa cell tumor etc. are included in this group. As a Result of stopping of ovarian activity in such conditions leucorrhoea is usually blood stained and offensive and in the absence of any infection even vaginal mucosa becomes atrophic and gives rise to senile vaginitis. Some times leucorrhoea may be due to senile pyometra too.

Non Specific Leucorrhoea:

In this important group of disorders, variety of mixed pathogens is recognizable on smears and culture. Staphylococci, streptococci both hemolytic and anaerobic and E. coli constitute the important pathogens. If it is believed that other non-specific conditions may be the alternate of a proceeding specific infections.

Etiology:

Chemicals, drugs, douches, passaries, tampons, trauma, foreign bodies and contraceptives and even vaginal and cervical operation are all causative factors, alternation in the pH towards alkalinity always favors nonspecific infection, hence its common incidence is the puerperium. The association of secondary coccal infection with trichomoniasis is important since the isolation of the secondary organisms may mask the undetected presence of Trichomonas, which is really responsible for the discharge (vaginal infections, infestations and discharges).

Signs and Symptoms:

The signs and symptoms include the nonspecific vaginal discharge, local redness, swelling, tenderness and irritation in vagina. There may be dysuria and frequency in micturation vaginitis is mild or severe, may be acute or chronic and the colour consistency and amount of discharge is variable. The pH of the discharge

usually remains all alkaline. Usually we do not get any significant changes in female genital tract unless the leucorrhoea is of chronic duration.

TYPES OF DISCHARGE

1. Serous Discharge –

When an excess or the normal white watery like or serum like secretion is often physiological and is seen post-menstrually or during pregnancy, sometimes it is a reflection of sexual difficulties or anxiety such as fear or infection of cancer and it is often seen in late puerperium and in senile vaginitis.

2. Mucoïd Discharge –

Its colour is like white of egg sometimes peculiarly tenacious (Shaw, 1975). It is due to excessive oestrogenic stimuli. It occurs mostly at or about the time of ovulation and psychosexual stimulation. Discharge, which is partly watery but contains white solid masses, is due to monialial.

3. Muco purulent discharge –

A muco purulent discharge usually comes from an infected cervix, which sometimes bears erosion due to gonococcal or pyogenic origin. Mainly contains number of leucocytes with many desquamated cells and admixture of cervical mucus which shows yellow colour.

4. Purulent Discharge –

A frankly purulent yellow discharge may be to tricho-monaliasis infected senile vaginitis, infected senile endometritis, gonococcal infection, retained infected products, streptococcus and staphylococcus, pneumococcus infection or to a foreign body. Sometimes associated with adenocarcinoma of cervix and uterus. Purulent discharge may also be present in associated with septic abortion, puerperal sepsis and pyometra. Any infected discharge may be associated with vulval discomfort or soreness. This is predominated by serous exaduate& leucocytes.

5. Irritating Discharge –

The two-classic causes of an irritating discharge are infection by the trichomonas vaginitis and candida albicans giving rise to acute or chronic trichomonas or monialial vaginitis.

6. Offensive Discharge –

Is characteristic of necrotic lesions in the genital tract, such as carcinoma of the cervix, septic myomatous polyps, septic abortion, sarcoma of the uterus with carcinoma of the vagina. It is also present when foreign bodies such as pessaries and tampons have been forgotten and retained in the vagina. Urinary discharge in cases of urinary fistula. Faecal discharge in case of recto-vaginal fistula. s

7. Blood-stained Discharge –

It occurs with oestrogen deficiency (so called senile vaginitis), carcinoma of the cervix with body of the uterus, cervical polyp and infected and degenerate submucus fibroid polyps. Cervical ulcers in cases of prolapse or from benign or malignant uterine tumors. Any ulcerated lesion of the genital tract whether

inflammatory or malignant will produce a blood-stained discharge. The importance of the symptom as a possible indication of malignant disease cannot be overstressed. When blood stained discharge occurs before menopause the possibility of intrauterine pregnancy must always be considered. A blood-stained discharge may be caused by retained products of conception or by a placental polyp.

PELVIC FACTORS:

Pelvic factors can be divided into four categories-

A) The vagina becomes colonized within first 24 hours of life by various cocci and by lactobacilli, and the acidity falls due to withdrawal of the sex hormone, invasion by staphylococci, streptococci, diptheroids and colon bacillus occurs only occasionally, however they do become pathogenic, when they do, or when more virulent organism introduces they multiply rapidly in the alkaline environment of prepubertal vagina. The vulva is usually involved in the inflammation, so the term vulvo vaginitis is preferable to vaginitis.

✚ Gonococcal-vulvo-vaginitis: The causative organisms of gonorrhoea is a member of the Neisseria group (Neisseria gonorrhoea). In the female, gonorrhoea may occur at any age, but it is most commonly seen between menarche and the menopause, it is usually transmitted by sexual intercourse.

✚ Leucorrhoea is often the only symptoms of the external gonorrhoea infections. The word external is used to indicate the involvement of the tissue of the cervix, urethra, skene's ducts, bartholin's glands and in the infant, the vagina. The yellow green discharge may be slight or profuse, if it develops in patients who have a pre-existing leucorrhoea. She may fail to recognize that a new and abnormal condition exists. Thus, the disease may be spread innocently.

✚ Trichomonas vaginitis:

The colour of vaginal discharge may be cream white, yellowish, yellow-green, grey depending usually upon the nature of the accompanying bacteria. The amount of discharge is usually profuse, frothy, or bubbly and acidic discharge is observed, it may be due to the fermentation of carbohydrates, by the Trichomonas with the consequent production of gas

and acid. The discharge is quite purulent character moderately thin and usually of quite fluid consistency and often has a foul odor of which the patient is frequently cognizant.

The labia minora are characteristically inflamed and some what thickened. On separating the labia, the mucous membrane surfaces are seen to be acutely inflamed, often deep red in colour and of a granular pebbly character. The urethra orifice is prominent and pouting and very frequently is filled with a yellowish discharge.

✚ Candida albicans vaginitis:

The clinical signs and symptoms of Vulvo Vaginal Candidiasis are not always typical and occasionally deceptive. The most common pathogen is Candida albicans, which accounts for approximately 75-80% of cases (W. Mendling).

Acute pruritis and vaginal discharges are the usual presenting complaints, but these symptoms are

not specific for Vulvo Vaginal Candidiasis or invariably associated with it. The most frequent symptom is Vulvar pruritis, which occurs virtually in minimal. Although described as typically cottage cheese like in character, the discharge may vary prone to water to homogeneously thick. Vaginal soreness, irritation, Vulvar burning, dyspareunia and external dysuria etc. occur commonly.

Odour if present is minimal and not offensive, examination frequently shows erythema and swelling of the labia and Vulva often with discrete postulepapular, peripheral lesions.

The cervix normal and vaginal nuchal erythema is present - together with an adherent whitish discharge, characteristically the symptoms are exaggerated in the week preceding the onset of menses with same Relief after the onset of menstrual flow.

The infection with monial is mild, scattered, thrush patches on the introitus; vestibule and inner surface of the labia may be seen. When the infection is more severe, the whole surface is involved and inflamed. Petechial hemorrhage may be seen on the removal of thrush patches. According to Monif (1985) diabetic are especially prone to candidal vulvitis, whereas candidal vaginitis occurs after antibiotic therapy, Girmmer et al. 1968 distinguished four forms of vulvae mycosis. A vesicular form with discrete, later confluent yellowish vesicles surrounded by narrow erythematous margins and an eczematous form with edema and bed lesions with scaly margins and raised centers (in the authors view this is a later stage by few days) of the vesicular forms when the vesicles have been opened by scratching and frictions. A follicular form with pustules and papules in the pubic hair follicles and the externally rare granulomatous form, which begin as chronic intracutaneous mycoses in childhood and which as a consequence of granulomatous inflammation may give, rise to verruciform hyperkeratotic nodules. It is associated with a defect in cell-mediated immunity, which differs between individuals.

Treatment

This should be conducted according to the determined cause; physiological leucorrhoea needs no treatment but assurance.

- ✚ Monial vaginitis: This is due to a gram-positive fungus, which flourishes in an acidic medium with an abundant supply of carbohydrate. It is therefore, common in pregnancy and diabetes the higher incidence of this type of vaginitis is found in the women taking oral contraceptives (Rohitner and grimblee, 1970). In a few cases the pills aggravate or precipitates moniliasis. There is a white curdy discharge, thick, scanty and associated with marked pruritis. There is often soreness and oedema of the vulva. The clinical appearance of the lesion is “thrush” like white patches that rub off freely in contrast to leukoplakia, where the white patch is more tenacious (Dawkin et al 1953). Cruick shank and Sherman found that discharge produced by Candida does not contain pus cells and it is usually acidic in reaction.
- ✚ Vulvo-vaginitis due to pin-worm: pinworms apparatenly act as mechanical carriers, bringing bacteria from the rectum in the vagina. Also scratching the pruritic perineum brings bacteria to vulva.
- ✚ Vaginitis caused by parasites: Entameoba histolytica affects the colon primarily but can secondarily involve the vagina.

- ✚ Other causes of vulvo-vaginitis: this includes grandnerella (*haemophilus vaginalis*) which is rare. Prior to amenorrhoea, corynebacterium, diphtheria, meningococcus, typhoid bacillus, shigella fluxneri, entameoba histolytica, giardia and herpes virus hominess etc. streptococci, staphylococci can cause the condition.
- ✚ Congenital anomalies and vulvo-vaginitis: When congenital anomalies cause vaginal contamination by urine or faecal matter, vulvo-vaginitis may
- ✚ Senile vaginitis: This is a non-specific vaginitis which occurs in women after menopause and is due to diminished resistance to infection of the vaginal wall which has become atrophic as a result of the fall in the oestrogen level. This is not really a true vaginitis but it is a mild inflammation of vagina associated with red haemorrhagic spots in vaginal walls. The chief symptom is slight watery discharge may become blood stained.
- ✚ Malignant growth in vagina and vulva: Usually occurs after the age of 55 years. Discharge is initially watery, later becoming offensive and blood stained. Carcinoma in situ has also been reported following the use of immunosuppressive therapy.
- ✚ Foreign bodies in vagina: This is common in children. The discharge is offensive. Foreign bodies like pessaries used for prolapse of uterus, contraceptives, use of I.U.C.D even the pads used for a long-time during menstruation can also cause excessive vaginal discharge.

CERVICAL CAUSES:

Although the cervix was recognized as an organic entity as early as 4500 B.C during the third Egyptian dysentery, it was Soranus, in the 1st century A.D who gave the first accurate description of the cervix uteri as a separate portion of uterus means the neck of the uterus. The conditions causing increased cervical secretions are as follows:

- Erosion of cervix and chronic cervicitis: The name “Erosion” is time honoured but unfortunate since it suggests that the cervix has eroded by some ulcerative process. (Shaw’s 1978)

Inflammation of the cervix uteri or cervicitis may be either or acute or chronic and may involve the portio, the endocervix or more frequently both, there are common cause of excessive whitish discharge. (Dawn et al. 1980) there is increased secretion from cervical gland which is alkaline nature. Erosion commonly follows after childbirth is due to laceration of cervix which may later be infected. The discharge is thick and mucoid and sometimes may be blood stained.
- Cervical polyp: These usually means polyps which are multiple, bluish and translucent producing a glibrous mucoid discharge.
- Carcinoma of cervix: This type of malignant neoplasm produces a thin white watery discharge at first associated with menstrual irregularities. Very frequently it is associated with chronic cervicitis. The discharge becomes purulent, offensive and blood stained only, when the growth become ulcerated and infected.
- Tubercular cervicitis: Tuberculosis of the cervix is almost invariably secondary to tubercular vaginitis, and endometritis

UTERINE CAUSES:

- Chronic endometritis: This produces a thin watery discharge associated with diseases of bladder and omentum and menstrual irregularities. Very rarely it is associated with chronic cervicitis.
- Submucous fibroid: It produces a watery discharge initially and is usually associated with menorrhagia and intermittent whitish discharge.
- Endometrial polyp and hyperplasia: It is usually associated with hyperoestrogenism (i.e. produces white discharge) and is frequently related to functional uterine bleeding.
- Carcinoma of body uterus and chronic epithelioma: This produces, white discharge in early stage but quickly the discharge becomes offensive and blood stained.
- Leucorrhoea after total hysterectomy: Leucorrhoea frequently develops after total hysterectomy.

Examination of patients

General examination

Patient should be examined generally for general debility, anaemia, oedema, pulse, temperature and blood pressure.

Local examination

- ✓ Vulva, perineum and thighs are inspected for the sign of excoriation. The vestibular glands and urethral meatus are also observed.
- ✓ Vaginal wall and cervix are examined through speculum, normal vaginal epithelium is pink and wall is well marked and cervix should be covered in squamous epithelium, normal discharge is like curded milk and is white and odourless.
- ✓ Abdominal examination should always be made.
- ✓ Specimen of discharge are taken for microscopic and culture examination and a cervical smear for cytology.

When a patient complains of vaginal discharge it is essential to establish its amount and nature and to do this the patient's statement must be correlated by direct examination. A thick, milky or curdy discharge is suggestive of a vaginal source and vicid mucopurulent one of a cervical source the admixure of blood in leucorrhoeal discharge of women of middle life and should always lead to the suspicion of malignancy.

Examination of vaginal discharge

Examine the pH of vaginal discharge and cervical mucosa by pH indicator.

MANAGEMENT OF LEUCORRHOEA

Treatment of leucorrhoea varies with its cause, determined by careful history taking, general and per vaginal examinations. In all cases general health of patient is improved by correcting anaemia, dysentery, menstrual disorders, constipation, anxiety stress etc.

Leucorrhoea occurring due to any other organic lesion or infection should be treated accordingly. Foreign bodies must be removed while neoplasms should be treated with its specific treatment. Pelvic congestion is controlled by regular physical exercise, regulating the bowel habit and by daily cold bath or showers. Cervical erosion is to be treated by cauterization.

For the treatment of non specific leucorrhoea need more explanation and reassurance are usually necessary, especially when the discharge is noticed only pre menstrually at the time of ovulation, during pregnancy and in course of taking oral contraceptives.

Medicated pessaries are useless. Cleanliness is assured by bathing and by changing under clothes regularly & by maintaining proper hygiene.

Specific treatment:

- ❖ Trichomoniasis is treated by metronidazole (100 mg thrice daily for 10 days)
- ❖ Monilial infection is treated by local application of 1% gentian violet.
- ❖ For gonococcal vaginitis either ceftriaxone, ofloxacin, ampicillin, or probenecid.

Preventive measures

- ✚ Adequate therapy for gonococcal infection and meticulous follows up are to be done till the patient is declared cure.
- ✚ To treat adequately the male sexual partners simultaneously.
- ✚ To avoid multiple sex partners.
- Associated systemic illness should be treated by intramuscular antibiotic therapy.
- Foreign body should be removed followed by use of oestrogen therapy.
- For senile vaginitis: oestrogen ethinyl oestradiol-0.01 ng daily for three weeks is effective. Oestrogen removes the resistance of vaginal pH. There is however chance of withdrawal bleeding.
- If erosion is associated with infection, the antibiotic therapy should be given. Sometimes a non-specific therapy is also given for instance, if erosion is associated with chronic inflammation, milk or omnadian (non specific proteins) may be given to increase the resistance of the host by causing hyperaemia and leucocytosis at the erosion and thus acts beneficially in causes of chronic inflammation. Besides above general treatment cauterization of the erosion is its actual treatment. The main principle of cauterization is to destroy the columnar epithelium lining of the erosion. So that the squamous epithelium at the edge of erosion is stimulated and epithelization occurs.

PRINCIPLE ANALYSIS

“SIDDHANTO NAAM SA YAH PARIKSHAKE BAHURVIDHAM PARIKSHYA HETUBHISCHA SAADHITWA STHAPYATE NIRNAYAH” (Ca. Vi. 8/37)

Principle is an unchangeable conclusion given by examiners after many times of examination of subject& its verification by different means.

As Ayurveda is science of life, pertaining to cause, symptoms & treatment of disease. Hence the principles of Ayurveda are eternal laws based on sound scientific background which are practically to be used in treatment procedures. If we ignore these fundamental principles of Ayurveda, we could not achieve success in treatment process. These principles are laid down by Maharshis, who by their divine eyes give a definite form, specific & different laws of treatment for different disease. These laws are heart of treatment principles. One such law **“NAAHI VAATDHRITE YONI NAARIRAM SAMPRADUSHYATP” (Ca.Ci.30/115)**, which is given in CharakaCikitsasthana for treating any type of Yonivyapads i.e. gynaecological disorders.

Vata has very important role in producing Gynaecological Disorders, as the seal of Vata is below Umblicus.

“STHANAM VAATASYA TATRAPI PAKWADHANAM VISHESHTAAH” (A.H.Su.12)

“TATRA SMASEN VATAH SHRONI GHUD SANSHREYAH” (Su. Su. 21)

“ADHONABHIY ASTHIMJANAU VAAT STHANAM PRACHAKSHATE” (Ka.S. Su. 27)

Although the three Doshas are present in whole body, but their specific place & action are described for understanding their physiological process. As Vata is responsible for all movement below Umblicus, whether to throw out the waste product, or to absorb the essential nutrient after digestion depends on the function of Vata.

Now moreover in Yonivyapads, Apan Vayu plays important role as

“VRISHNO VASTI MEDRUM CHA NABHYA URU VANKSHNO GUDAM”: (Ca.Ci.28/10-11)

Cause & Symptoms Of Apan Vayu

“APANO RUKSH GURVANN VAIG GHAAT ATIVAAHNEAH,

YAANYANASAN STHAN CHAKRAMESCH ATISEVITEYAH,

KUPITAH KURUTE ROGAAN KRISCHAAN PAKVASHYA ASHRYAN,

MUTRA SHUKRA PRADOSHARSHO GUDAMBRANSHA AADIKAAN BAHUN”

(A.S. Ni.16/21)

The above vitiating factors are also responsible for producing the Yonivyapads. If we look at the Etiology of Sweta Pradara. The Kapha provoking factors alongwith vata vitiating factors cause the irritation in channels of vata, vitiating it due to its Shita&Chala bhava, leading to SrotasSankoch, JatharagniMandya& lack of Poshak Rasa i.e. the rasa dhatu (dhatu-sukshma form rasa dhatu), Dosha-Madhyam form (Kapha), Mala-sthul form(mucous), which consecutively produce RaktaKshaya& general debility.

Role of vata in producing diseases

“VIBHUTWAT ASHUKARITWAT BALITWAT ANYAKOPNATA,

SWATANTRAYAT BAHUROGTWAT DOSHANAM PRABLOANILAH” (A.H. Sa.3/84)

The chief Dosha is Vayu among Tridosha, as it is VibhuVyapak. It can peep in tiny channels, then other two Doshas, hence it can vitiate easily & in large amount. It is more powerful than other two Doshas& also provoke other two to cause disease. It not only produces disease separately, but also enhance other two Doshas to take initiative in disease production.

Also, in words of Sharangadhar:

“PITTAM PANGU KAFAH PANGU PANGUWO MALDHATWAH,

VAAYUNAM YATRA NIYANTE TATRA GACHHANTI MEGHVATAA” (Sa. Pu. Kh. S/25)

In normal physiological conditions, Doshas are taken away by vayu. Also, in vitiated condition, they are moved by Vatadosha only. Acharya Sushruta also says in context of Prasaravastha of Dosha-

“TESHAAM VAAYURGATIMTTWAT PRASARNAM HETUH SATYAPYA CHAITANYE SA HI RAJOBHUYISHTHA RAJASCH PRAVARTAKAM SARVBHAWANAM” (Su.Su.21/28)

“SARVACHESTASAMUHAH SARVA SHARIRASPADNAM” (Su.)

“SARVA HI CHESTA VATEN” (Ca.)

Vitiated doshacant move by themselves. Vayu has the capability to make them move, as vayu is Rajo-Guna Pradhan, which is motive force behind movement of any object.

Also

“DOSHA TRAYASYA YASMACHH PRAKOPE VAYUR ISVARAH” (Su. Ci.35/29)

Vayu is the causative factor behind vitiation of Doshas&Doshas are responsible for causing disease. Hence Vata is obviously the prime factor in all sort of diseases.

Guna Dharma of Vata in relation to Sweta Pradara:

In normal physiological condition, the Guna Dharma of Vata are as follows:

“RUKSHA SHITO LAGHUH SUKSHAM CHALO ATH VISHDA KHARAH,” (Ca.Su.1/59)

“YOGVAAH PARAM VAYU SANYOGAT UBHYARTHKRITA,

DAAHKRIT TEZSA YUKTA SHEETKRIT SOMSANSHRYAT” (Ca.Ci. 3/38)

“VAATASTU RUKSHA LAGHU CHAL BAHU SHIGHR SHEETPARUSH VISHADAH,” (Ca.Ci.8/98)

Physical Properties- Ruksha, Shita, Laghu, Sukshma, Vishad, Chal, Daruna

Chemical Properties- Yogvahi, Aashukari, Shighra, Acintyashakti

Mental Properties- Rajoguna

In all, the above properties, ChalaGuna of Vata plays a crucial role in producing the disease Sweta Pradara. All other properties are consecutive stage of other gunas. As Shita by increasing in different proportions

increases Ruksha, Vishadata&kharata. Hence SheetaGuna is karana (cause) &Ruksha, Vishadata&Kharata are Karya (effect).

Now Laghu, Sukshma, Chala these are fulfilling each other properties. With the help of these properties Vayu maintains its equilibrium. Also, to keep Chalaguna of vayu in normal state, ShitaGuna should be in normal amount or in other words for proper conduction or movements body temperature should be appropriate.

The principle we can adopt is that Chala& Sita guna of Vata are inversely proportional. The other properties of Vata i.e. Ruksha, Kharta, Vishadata can be easily understood but if they are due to VataVridhi or KaphaKshaya can be understood by Chalagna of Vata. This only property of Vata differentiate it from other Dosha. Raised Cahalaguna increases excretion. Toda, Shul, Bheda, while deceased ChalaGuna hampers the activity organs.

Now in the cause of Sweta Pradara, Kapha&Vata provoking factors vitiate Kapha&vatadosha. This vitiated KaphaDosha alone can not produce the symptom, the properties of Kapha causes obstruction (sanga) Margavrodh in the pelvic area, which is the seat of Vata. This causes local vitiation of VataDosha, with its proportionately increased ChalaGuna than ShitaGuna as chal (Ca&V), Sara (Su.Ba) causes atipravritti.

“YASYA PRERNE SHAKTI SA SARA” (Hemadri)

“SARASTESHAM PRAVARTAKAH” (Ba.P)

“SAROANULOMAN PROKTAH” (Su.)

“SANKOCHANAM SHAITYAGUREN VRADHISYA CHALATWAGUNEN CHALAN KARMANO LINGAM” (Gangadhar)

This Sheeta&chala Bhava leads to SrotasSankoch, causing lack of Poshak Rasa in Dhatus, ultimately causing Dhatu Kshaya, which in turn causes secondary vitiation of VataDosha.

1 ELEMENTARY FACT OF THERAPY

The procedure adopted in treatment should be either *HetuViparit*, *VyadhiViparit* or *UbhayViparit* in the sense of *dravya*, *guna*, or *karma*. In this context the proposed drug is *Ubhay Viparit*. **“ATSATWE TATSATWAM ANVAYH”** with this method of *Anvay*, the products which are having similar property tend to vitiate the *Dosha-Dushya* or production of disease.

On the contrary **“TADBHAVE TADBHAO VYATIREKH”** this *vyattrek* method tells that products having dissimilar property alleviate *Dosha-Dushya*& palliate the disease.

Hence through the *AnvayVyatirek* method, it is concluded that *KaphaDosha* with its *Guru*, *Shita*&*Pichhik* property & *Vata* with its *Chala* property is responsible for production of diseases. Now for alleviation of the disease, a combination of drug (*dravya*) is chosen which is having *Kashaya Rasa*, *KatuVipaka*, *Ruksha*, *Ushna*, *LaghuGuna* that oppose the property of vitiated *Dosha*. Not only *dravya* should be opposite, but *Guna Karma* should also be dissimilar in property The *chala-guna- karma* of *vata* can be alleviated by *stambhana karma*. Any type of discharge or secretion can be stopped by the use of *StambhanDravya*.

In *Sweta Pradara* vitiated *vata-kaphadosha* causes hypersecretion of mucous, which can be stopped by the use of *systemic & local Kashaya Dravyas*. For systemic use, oral drug which alleviates *Vata&kaphadosha*, while local therapeutic measures, such as *Uttar Basti* which alleviates the vitiated *Apan Vayu* is best in treatment of *Sweta pradara*. *Kashaya Dravyas* are strongly recommended in *Stambhana, Sangrahi, Sandhaniya&Ropana* process. As **“KAAY STAMBHANAH SHEETAAP”**

1. Its predominantly *Stambhak* property absorbs the sliminess & sloshy condition of vagina.
2. Through local application it provides strength to local *dhatu&* bodily tissues & arrest the discharge condition.
3. Through oral administration it digests *Ama* (Toxic substance) & *Doshas* (body humour). It also absorbs body fluid.

Therefore, through *Anvay-Vyatirek method*, it is concluded that by the use of local & systemic therapy adjourned with *Kashaya Rasa*, it combats the symptoms of *Sweta Pradara* in patients while in the absence of intake of these medications, the symptoms persist

Conclusive Remarks

It is one of the common problems met in gynaecological practice which may be due to increased physiological secretions of genital tract or due to some pathology. The word **Sweta Pradarai**s generally found in different context of *Yonirogas* in the form of *Sweta Srava*. The word **Sweta Pradara** consists of two words, the word *Sweta* means white colour&*Pradara* means tearing off or redding. It is one of the common problems met in gynaecological practice which may be due to increased physiological secretions of genital tract or due to some pathology. Trichomoniasis is treated by metronidazole (100 mg thrice daily for 10 days), Monilia infection is treated by local application of 1% gentian violet, For gonococcal vaginitis either ceftriaxone, ofloxacin, ampicillin, or probenecid. Preventive measures Adequate therapy for gonococcal infection and meticulous follow up are to be done till the patient is declared cure. To treat adequately the male sexual partners simultaneously. To avoid multiple sex partners. Associated systemic illness should be treated by intramuscular antibiotic therapy. Foreign body should be removed followed by use of oestrogen therapy. For senile vaginitis: oestrogen ethinyl oestradiol-0.01 ng daily for three weeks is effective. Oestrogen removes the resistance of vaginal pH. There is however chance of withdrawal bleeding Although *Sweta Pradara* is a *Kaphaja* disorder but the above principle laid down by Acharya Charaka should be kept in mind while treating the disorder. Drugs & treatment principle from the Classical texts shouldn't be ignored, but newer drugs should be assessed, to enrich the materia medica, with their action based on *Tridosha* principle. The crux of present situation has generated an idea of searching natural drug for the disorder which is cost effective, safe, long standing, & without having recurrence. Newer contribution with due modification should be like that so as to suit the religion, culture, climatic condition, human constitution, traditions, economical & social conditions throughout the world

References

- Yoga Ratnakar: Hindi Commentory by Achrya Laxmipati Shastri, Published by chaukhambha Sanskrita Series Office, Varanasi. 2nd Edition, 1973 p.246
- Achaya Charaka, Charak Samhita (Uttarardha), Hindi Traslation by Pandit Kashinath Nath Shastri and Dr Gorakh Nath Chaturvedi, Varanasi, Chaukhambha Sanskrit Series, 1998 p.853-854
- Sri Govindacharya, Bhaisajya Ratnavali with Vidyotini Hindi commentary by Sri Kaviraja Ambikadatta Shastri edited by Acharya Rajeshwaradatta Shastri, 17th edition, Varanasi, Chaukhambha Publications, 2004 p.853-854.
- Acharya Vagbhat, Astanga Hridaya, Hindi Translation by Atridev Gupta, 10th edition Varanasi, Chaukhambha Sanskrita Sansthan, 1987 p.839.
- Tiwari P.V., Ayurvediya Prasuti tantra & Stri Roga, Ind Part, 2nd edition, Varanasi, Chaukhambha Orientalia, 2000, reprint 2005, p.266-268.
- Tiwari P.V., Ayurvediya Prasuti tantra & Stri Roga, IInd Part, 2nd edition, Varanasi, Chaukhambha Orientalia, 2000, reprint 2005, p.266-268.
- Dawn C.S., Text Book of Gynaecology, Contraception & Demography, 14th Edition, Kolkata, Dawn Books, 2003. p.503-505.
- Vaginal Discharge*, [homepage on the Internet], Cited on 10 Feb 2014, Available from: www.mckinley.illinois.edu/handouts/vaginal_discharge.html
- Vijay, & Kumar Gupta,R.(2015).AYURVEDIC CONCEPT OF LEUCORRHOEA:SWETA PRADARA.International Journal of Ayurveda and pharma research,2(3).
- Acharya Charaka, Charak Samhita (Uttarardha), Hindi Translation by Pandit Kashinath Nath Shastri and Dr Gorakh Nath Chaturvedi,Reprint,Varanasi, Chaukhambha Sanskrit Series, 2002 p.858
- Acharya Sharandhara, Sharandhara Samhita, Dipika Hindi Commentary by Brahmanand Tripathi, Reprint, Varanasi, Chaukhambha Shubharati Prakashana, 2001, p.149.
- Acharya Bhav Mishra, Bhav Prakash Nighantu, Uttarkhanda, Hindi Commentory by Shree Brahma Shankar Mishra, 4th edition,Varanasi,Chaukhambha Vishwabharati, 1988. p.764.
- Dr. Anant Ram Sharma, Editors, (Reprint ed.). Sushruta Samhita of Sushruta (Vol II), Sharirasthanam; Sharirasankyavyakara Sharira Adhyay: Chapter 5, Verse 43-44. Varanasi: Chaukhamba Subharati Pratishthana, 2008; p.83.
- Ibidem I, Vol II. Sharirasthanam; Garbhav- kranti Sharira Adhyay: Chapter 3, Verse 4. p.29.
- Bhatia J, Cleland J. Self-reported symptoms of gynaecological morbidity and their treatment in South India. *Studies in Family Planning* 1995;26:203-216.
- Shastri KN, Pandey GS Editors. (1st ed.). Vidyotini Hindi Commentary on Charak Samhita of Charaka (Vol. 2), Chikitsasthana: Chapter 30, Verse 116. Va- ranasi: Chaukhambha Bharati Academy; 2006; 116. p.768.
- Ibidem 4, Vol II, Chikitsa Sthana; Yonivyapadachikitsa Adhyay: Chapter 30, Verse 37. p.139.
- Max Muller F, editor. Rig-Veda. 4thed. Varanasi: Chaukhmbha SanskritaSamsthan;