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A Glimpse of Upapluta Yoni Vyapat In Relation To Vulvo Vaginal Candidiasis

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ABSTRACT

Vaginitis is one of the common gynecological complaints reported by women irrespective of their age and socio-economic status. The common types of vaginal infections are vaginal candidiasis (V.V.C.), trichomoniasis (TV) and bacterial vaginosis (BV). In Ayurveda, diseases of female reproductive system are explained mainly under the heading of “yoni vyapat”. Yoni vyapats characterized with abnormal vaginal discharge such as slaishmiki, paittiki, paripluta, upapluta etc can be considered to be as the explanation for vaginitis in Ayurveda classics. This article aims to present vulvo vaginal candidiasis through the lens of Ayurveda, discussing the concepts of the disease explained in bṛihatrayi.

Keywords: Vaginitis, Bacterial vaginosis, vulvo vaginal Candidiasis (v.v.c.), Trichomoniasis, Upapluta Yoni Vyapat.

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INTRODUCTION

Upapluta Yonivyapad is described by Acharya Charaka, both Vagbhattas and Sharangadhar. On the basis of the textual description, it seems that Upapluta Yonivyapad can be compared to Vulvovaginitis during pregnancy. Upapluta Yonivyapad is caused by vitiation of Vata & Kapha and it is characterized by yellowish or white mucoid vaginal discharge associated with pricking pain, itching etc. in vagina. If these infections are not treated, then they may spread to the chorio decidual tissue through the cervical canal resulting in the premature rupture of membrane, preterm labour, low birth weight, pregnancy loss, spontaneous abortion and post pregnancy infection. According to Acharya Vagbhatta, Tampon of oleaginous substances medicated with the decoction of Panchavalkala, Jambu, Dhava, Sallaki, and Jjingini can be used in Upapluta Yonivyapad. Most of the drugs of this *taila* have *Kashaya Rasa, Ruksha Guna and Vata Kapha Dosha Nashaka, Vrana shodhana, Vrana ropana, Vedana sthapana, Shothahara Dahaprashamana* properties. They have been reported to exert astringent, analgesic, anti-inflammatory, antimicrobial, antiprotozoal and antifungal properties. In worldwide, Vulvovaginal infections are one of the most common causes women see their practitioners for, accounting for more than 10 million visits each year. Many women experience uncomfortable Vulvovaginal infections at one time or another. Vaginitis is very common and is reported by as many as 75% of women at some point in their lives. There are many causes of vulvovaginitis, but the most common infections are Vulvovaginal Candidiasis (VVC), Bacterial vaginosis (BV) and Trichomonas vaginalis infection. All these infections are encouraged by changes in the normal acidity or the hormonal imbalance in the vagina. In healthy state, the lower genital tract of women harbours many organisms like bacteria as (Lactobacilli) the commensals, which survive without producing any symptomatic illness and release lactic acid to maintain a normal acidic vaginal environment. When lactobacilli are decreased or eliminated and the vagina becomes less acidic, the "bad bacteria" and yeast proliferates. Factors that increase the likelihood of these changes and resulting infection are pregnancy, diabetes mellitus, immunosuppressive disorders such as HIV, and use of antibiotics or steroid medications.

Vulvovaginal candidiasis is inflammation or infection of the vulva and vagina (external genital organs of woman). Vulvovaginitis is a frequently observed condition in women, which may sometimes emerge as dangerous outcome. Vulvovaginal infections can cause discomfort, discharge with itching, redness, sometimes burning and soreness.

General Signs and Symptoms of Vulvovaginitis:-

Vulvo vaginitis is characterized by one or more of the following signs and symptoms. Local congestive state is responsible cause of an increased vaginal secretion & discharge is by an increased transudation. Discharge are white , thick and cheesy in consistency in Candidiasis, grayish in bacterial Vulvovaginitis and yellowish or greenish in colour in Trichomoniasis. The discharge causes irritation of the vulva and patients complain of itching or irritation. Due to severe Vulvo-vaginitis vagina is very sore. Also because of severe itching Vulva and vagina is ulcerated and tender. The patients experience severe pain during coitus. Vaginal walls become sore and red. Irritation and burning may felt on the vulva (inner and outer lips around the vagina) and in the vagina, including around the urethra.

Features Of Vulvovaginitis Caused By Candidiasis:-

The condition known as Candidiasis or Moniliasis, also called vaginal thrush, is caused by the yeast like organism *Candida albicans*. Seventy-five percent of all women will experience at least one vaginal yeast infection during her life and many are plagued by recurrent yeast infections. A yeast infection in women is one of the most discomforting yet commonly seen conditions. There is normally lowering of immunity which leads to microorganisms like *Candida albicans* growing in excess and causing Candidiasis. *Candida* vaginitis is the most common vaginal yeast infection. *Candida albicans* can be identified by culture from the vagina in approximately 25% of women. Due to excessive estrogen and increased deposition of glycogen the vaginal secretion become more acidic therefore Candidiasis may develop in 55% of women .

Etiopathogenesis of Candidiasis:-

The etiological agents for this infection is a yeast (fungi) organism usually *Candida albicans*. It is a dimorphic gram positive fungus which exhibits both yeast and filamentous growth. Organism grows either on surface or in biological fluids resulting in budding yeast like form . When an organism invades tissue, both yeast & pseudohyphae develop. They are common in infected tissue. It stains with difficulty.

Mode of Transmission:-

Organism normally presents in the intestinal tract. It reaches easily to anus then to introitus and contaminates vagina. 30% of women may be colonized vaginally and be without symptoms of infection. Several factor have been identified that can lead to a symptomatic infection as opposed to colonization. Patients with symptomatic disease usually have an increased concentration of these micro organisms ($>10^4$ /ml) compared with asymptomatic patients ($>10^3$ /ml).

Predisposing Factors:-

Acidity of vagina: -The optimum pH for rapid proliferation of this fungus is 3.5 to 4.5. During pregnancy due to excessive oestrogen and increased deposition of glycogen, the vaginal secretion becomes more acidic. Monilial vaginitis is therefore more common in pregnancy.

Glycosuria:-Because of availability of more availability of carbohydrates, the vaginal pH falls and there by favours the growth of the fungus. So this type of vaginitis is common feature of diabetic patients (diabetes mellitus). Prolonged treatment with antibiotics:- Tetracycline and other antibiotics disturb the normal flora of the vagina and gastrointestinal track, where by the organism which have a check on the growth of fungus are killed and Candida gets chance to proliferate. In such cases, thrush of gastro intestinal tract and vagina are commonly seen. Immunosuppressive therapy:-cytotoxic drugs and corticosteroids causes immuno suppression and thus helps in growth of Candida. Tight clothing and moist environment are the aggravating factors because yeast thrives in a dark and warm conditions. Stress and other psychological aspects have been cited as causes of vaginal mycoses and are claimed to produce reciprocal affects (Robertson 1982 et.al.) it's quite conceivable that psychological factors may trigger the hormonal and immunological deregulations and thus may be predisposing factors for vaginal mycoses.

Chronic Anaemia.-Normal iron stores are needed to maintain an adequate immune reaction. This also entails adequate folic acid intake. Thus chronic anaemia leads to angular stomatitis & vaginitis specially due to candida.

Other factors that can predispose to yeast infection are-Treatment with antiandrogens, corticosteroids, Immunosuppressant or cytotoxic drugs, Radiotherapy, Yeast harboured by sexual partner, Occupation related to hospital (nurse etc.) Diet: Rich in Carbohydrate, Metabolic disorders e.g. Diabetes mellitus, Cushing's disease, Addison's disease, Hypothyroidism, iron deficiency anaemia, Debilitating disease that weaken the immune system e.g. Leukaemia, AIDS etc.

The vaginal discharge is a main complaint in Candida. The vaginal discharge is typically thick, white and cheesy tending to form plaques which are lightly adherent to the vaginal wall. If they pull away they leave multiple hemorrhagic spots. Many times discharge is atypical and may be watery or purulent. The discharge causes severe itching of the vulva, it is worst at night. Severe candidal infection may causes dyspareunia due to local soreness. Non offensive and odorless discharge and sometimes foul smells, constant vulval irritation, dysuria & Pain in the vulval (known as vulvodynia)etc. may be found.

On speculum examination the vaginal walls appears diffusely reddened and edematous. The thick white cheesy or curdy vaginal discharge is seen. The peeling of discharge from vaginal

wall, small petechial hemorrhages are seen underneath. Some time the discharge may be watery and yellowish .

Excoriation and fissures may present in severe cases. Perianal area is often involved.

The pH of the discharge tends to be less than 4.5 the diagnosis is often confirmed by a vaginal swab. In 10% KOH wet mount preparations, the fungal elements either budding yeast forms or mycelia will appear within as many as 80% of cases. In KOH preparation, Candida hyphae and buds stands out in prominence and easily diagnosed. The results of saline preparation of the vaginal secretion are usually normal, although there may be a slight increase in the number of inflammatory cells in severe cases. The vaginal swab is taken using Sabouraud broth or Nickerson's medium prepared for reliable results. The Candida stains poorly so that after staining of vaginal discharge the mycelia and spores may be seen refractile areas in background of stained and epithelial cells. The whiff test is negative in case of V.V.C.. 5% of women experience chronic relapsing yeast infection. In most women, no exacerbating factor can be found, but the following possibilities should be considered. Failure to complete a full course of therapy, HIV infection, Chronic antibiotic therapy, infection with a resistant organism such as *C. tropicalis* or *T. glabrata*, sexual transmission from the male partner, allergic reaction to partner's semen or vaginal spermicident.

Management:-

Advice given regarding to the personal and local hygiene. Use only warm water to wash the vulva. Dry thoroughly with a clean towel. (If the vulva is very irritated, drying it with a blow dryer set on cool.) Wash new underclothes before wearing. Use of a mild soap for washing underclothes. No use of detergents. Use of soft toilet tissue.

Control of predisposing condition. Reduction of predisposing medication (e.g. corticosteroid). Use of only white, 100 percent cotton underwear. Avoidance of moisture and retaining products near vagina, Nylon underwear and Panty liners, Vaginal lubricants, contamination of vulva with polluted water after bowel action.

Treatment of sexual partner also should be done.

Fingernails should be clipped short. Physical and emotional stress often precipitates attacks, hence attention should be paid to this and treatment started immediately.

Improvement of general health. Oral antifungal medication (fluconazole) can cause side effects such as headache, nausea and abdominal pain, while vaginal treatment is unlikely to cause these side effect. Azole cream- that include 2% butaconazole, 1% clotrimazole, 2% Miconazole and 0.4 to 0.8 % Terconazole are recommended topically. Clotrimazole, Miconazole, Nystatine, and Terconazole are also available as vaginal tablets.

Upapluta Yonivyapad:-

Upapluta Yonivyapad is one of the 20 *Yonivyapad*, which is caused by vitiation of *Vata* and *Kapha Dosha*. *Upapluta Yonivyapad* is described by *Acharya Charaka*, both *Vagbhattas* and *acharya Sharangadhara*. The meaning of word “*Upapluta*” means “over flowed”, “invaded” or “afflicted” . It is a clinical entity characterized by white, mucoid discharge per vagina caused by vitiation of *Vata* and *Kapha*. According to *Maharshi Charaka* when a pregnant woman consumes diet or indulges in mode of life capable of vitiating *Kapha* and also suppresses desire of vomiting and inspiration, then her agitated or vitiated *Vayu* withholding *Kapha* reaches to *Yoni* and produces abnormalities. Due to this, there is either yellowish vaginal discharge associated with pricking pain or white mucoid discharge. Afflicted with features of *Kapha* and *Vata*, this condition is known as *Upapluta Yonivyapad*

Specific Causes Of Upapluta Yonivyapad:-

Acharya Charaka has given following specific factors that cause the *Upapluta Yonivyapad*

- Intake of *Kaphakara* and *Vatakara Ahara* by pregnant woman.
- *Veganigraha* (suppression of vomiting and inspiration and both by pregnant women)which disturbs the natural force & direction of *Vata* and causes aggravation of disease

OTHER FACTORS WHICH AGGRAVATE VATA AND KAPHA DOSHA:-

Vata dosha gets vitiated by consumption of excessively *Laghu Anna* (light food), *Tikta* (Bitter), *Ushna* (Katu = pungent), *Kashaya* (astringent), *Alpa* (less quantity), *Ruksha* (non - unctuous), *Pramita Bhojana* (meals after passing the time) etc.& by doing the following *viharas* like *Ativyayama* (exercise), *Vegadharana* (suppression of natural urges), *Ativyavaya* (excessive sexual intercourse), *Ati Prajagarana* (keeping awake at nights for long periods), *Vishama Upachara* (administration of inappropriate therapeutic measures), *Langhana* (excessive fasting), exposure to cold dry winds, a variable daily routine, too much travel, Resorting to wayfaring, Sleeping over uncomfortable beds, sitting over uncomfortable seats, other physical activities in excess and *Chinta* (excessive worry) also cause *Vata Prakopa* and produce the disease.

Kapha Dosha gets vitiated by excessively consuming foods of *Madhura* ,*Guru* and *Kledakara* (slimy), salt tastes, *Yavaka*, *Masha*, *Mahamasha*, *Mudga*, Milk products, Sugarcane, Curd, Milk, *Tila pishta vikritis*, fat of animals of Marshy regions and water, the other *Dravyas* which are *Brimhaniya* in action are Unctuous, Excessive intake of *Abhishyandi*, *Guru*, *Pichchhila Ahara*, fatty substances, *Atibhojana*, *Adhyashana* etc.& *Kapha Prakopaka Viharas*

like *Divaswapa*, *Avyayama*, *Alasya* and sedentary habits are *Kaphavardhaka Vihara*, adverse in to physical exertion etc., all these *Vihara* lead to *Srotas Dushti* and cause the diseases.

Rupa (Signs & Symptoms):-

There are great individual variation in clinical features, as some may have pain and tenderness, or itching, one may exhibit watery discharges, while others may have thick curdy white discharge. Entire vaginal canal is covered with discharge. So according to this variation in *rupa* can be classified in to two types-

1. *Pratyatma Lakshanas* (Cardinal symptoms)

2. *Anya Lakshanas* (Associated symptoms)

Pratyatma Lakshanas (Cardinal symptoms) :

Pandu, *Shweta Srava*- White discharge *Kapha Srava*- Mucoid discharge *Toda-yukta Srava*- Discharge with pricking pain (reference) Local signs and symptoms like *Yoni Kandu*, *Yoni Pichchhilata*, *Yoni Daha*, and *Yoni Daurgandhya* etc. are due to the properties of *Kapha Dosh*. *Yoni Kandu* is a peculiar and uncomfortable sensation of irritation of the skin and mucus membrane of the *Yoni*, mainly Vulva and Vagina. It is caused due to the *Kapha Vikara* (scratching or rubbing of the attached area).

Anya Lakshanas (Associated symptoms):

Anya Lakshanas (associated symptoms) like *Katishoola*, *Angamarda*, *Bhrama*, *Daurbalya*, *Panduta*, *Mutradaha*, *Arochaka* and *Mala Vibandha*, *Maithunasahishnuta* (pain during coitus) etc., features are seen in *Upapluta Yonivyapad*.

Samprapti (Pathogenesis) :-

Due to *Aharaja Nidana* and *Viharaja Nidana* like *Vegavidharana*, *Ati Vyavaya* etc. that leads to *Vata Prokopa* and *Kapha Prakopa*. This vitiated *Vata* (*Vatenakrishta Kapha*) with holding to *Kapha* reaches in *Yoni* and causes *Sthanashamshraya* in *Yoni* and leads to *Yoni Dushti*. On the other hand *Kapha Prakopa* leads to *Sthanashamshraya* in *Yoni* causes *Yoni Dushti* then *Dosha Dushya Samurchchhana* takes place and it manifest the disease in *Yoni* and *Pratyatma Lakshana* like *Pandu Srava*, *Toda* etc. appear.

Sampraapti Ghataka:-

<i>Dosha</i>	<i>Kapha, Vata</i>
<i>Dushya</i>	<i>Rasa, Rakta, Mamsa</i>
<i>Agni</i>	<i>Mandagni</i>
<i>Srotas</i>	<i>Artava vaha</i>
<i>Srotodushti</i>	<i>Atipravitti</i>
<i>Adhishthaana</i>	<i>Yoni</i>
<i>Rogamaarga</i>	<i>Abhyantar.</i>
<i>Sadhya –Asadhyatva</i>	<i>Kasta sadhya</i>

How Sampraptighataka Is Responsible :-

Vata dosha- According to *Acharya Vagbhatts* it has been narrated clearly that *Yoni* will not vitiate without involvement of *Vata Dosha*. *Vata* has been considered as the dominant *Dosha* for the production of all type of *Yoni Rogas*. *Vata* is responsible for *Anulomana* of *Mala* from the body thus, keeping *Sharira* clean and in balanced state.

If for any reason (*Kaphavardhaka* and *Vatavardhaka Ahara & Vihara*), *Vata* gets vitiated and withholding *Kapha* reaches in *Yoni* and causes abnormalities.

Kapha dosha-*Prakrita Kapha* has been considered as *Oja* (Bala) and if it gets *Vitiated*, it acts as a *Mala*. Hence for the body resistance the normal function of *Kapha* is very necessary. The vitiation of *Kapha* may lead to lower resistance of the body tissues which leads infection or disease, & also *Vikrita Kapha* gets *Sthanasamshraya* in *Yoni* and ultimately may facilitate the *Upapluta Yonivyapat* or entry of infections in the Woman.

Dushya-*Agnimandya* leads to *rasa & rakta dhatukshyaya* which further leads to unhealthy state of body making more vulnerable to infection. Infection leads to inflammation & the site is *mansa dhatu*.

Srotas-The *artava vaha srota* is affected in etiopathogenesis of *Upapluta Yonivyapat*.

Agni-According to *Ayurved* , all the diseases are produced by *mandagni* which leads to *ama*. More over *ama* produces *Mala* (*kapha*) which *sthanasamshraya* in *Yoni* and causes various *Yoni rogas*.

VIBHEDAKA NIDANA:-

Twenty *Yonivyapads* are explained in *Ayurveda* so following are *bibhedaka Nidanas* of *Upapluta Yonivyapat*.

1) **Kaphaja Yonivyapat** :-*Kapha Dosha* gets vitiated due to excessive use of *Kapha Prakopaka Ahara Vihara*, reaches to reproductive system & causes unctuousness, coldness, itching & dull pain in vagina. Women look anaemic & menstrual blood is yellowish and unctuous.

2) **Sannipatika Yonivyapat**- *Acharya Charaka* says that due to consumption of congenial & non congenial both type of *Rasas* together, all three *Doshas* situated in *Yoni & Garbhasaya* get vitiated & produce their specific symptoms. There are burning & pain in *Yoni & Pandu pichchhila Srava* from *Yoni*.

3) **Acharana Yonivyapat** :-Due to non-cleanliness of vagina the parasites /microbes develop & produce itching (in vaginal canal). Due to itching woman feels excessive sexual desire. This is infective pathogenesis which leads to white discharge per vagina.

4) **Aticharana Yonivyapat** :-*Acharya Charaka* says that *Vayu*, gets aggravated due to excessive sexual act, produces *Shopha* (inflammation), *Supti* (numbness) & *Vedana* (pain)

in *Yoni*. Since it is caused due to over action (ati of copulation) (*Charana*)) hence termed as '*Aticharana*'.

5) ***Atyananda Yonivyapad***:-Woman suffering from *AtyanandaYonivyapad* does not get satisfaction with coitus & has other symptoms of *Kapha* such as unctuousness & itching etc.

6) ***Phalini Yonivyapad***:-When a woman has coitus with a man having big penis then she suffers from *Phalini Yoni Vyapada*. According to *Sushruta* features of all *Dosha* like *Vedana* (pain), *Kandu*, *Pichhilata* are present in *Phalini Yonivyapda*.

Comparative Study Between Vulvovaginal Candidiasis & Upapluta Yoni Vyapat:-

Criteria	Vulvo Vaginal Candidiasis	Upapluta yoni vyapat
Etiology	Unhygienic mode of life leads to infection	Intake of vata & kapha vardhak ahar vihar & suppression of vomiting & inspiration desire by pregnant women
Clinical feature		
1.Vaginal discharge		
a.colour	Curdy white	Pandu sweta srava
b.consistency	Thick	Pichhila srava
c.smell	Foul	Yoni daurgandhya
2.Itching of vulva	Positive	Yoni kandu
3.Pain in vagina	Positive	Yoni vedana
4.Coldness	Positive	Yoni shitalata
5.Burning sensation	Positive	Yoni daha

Upadrava:

Complications occur as a sequel following and resulting from the main disease. It may be in the nature of a major or minor ailment. It is more troublesome than the main disease itself, because it appears in the later stages of a disease, when body is already weakened. Even though specific *Upadravas* of this disease are not mentioned, but the *Upadravas* of *Yonivyapad* can be considered for this disease also. *Pradara*, *Gulma*, *Asrikdara*, *Arsha*, *stambha*, *sula etc vata rogas* and *Vandhayatva* are some of the *Upadravas* seen in this *Vyapad*.

Treatment:

Acarya Vāgbhata specified that vishudha yoni (unimpaired female reproductive system) is essential for proper garbha dhārana (conception and its maintenance) .So treatment of any type of yoni vyapat is essential to get conception & to parturate a healthy progeny. The following are the treatment described in our samhitas for the management of upapluta yoni vyapat.

1. After successive use of oleation and sudation tampons were used in *Yoni Rogas*.

2. Articles capable of suppressing *Vata* should be used in diet.
3. *Dhatakyadi* Taila should be used in the form of tampons, massage, over back, hips and sacrum and also as enema .
4. Tampon of oleaginous substances medicated with the decoction of *Shallaki*, stem bark of *Jambu*, *Dhava*, and “*Panchavalkala*” should be used.

DISCUSSION:

The explanations similar to vaginitis available in the context of yoni vyapat in Ayurvedic literature were compared and analysed. It was found that, candidiasis shows close resemblance with shlaishmiki, upapluta, aticaraṇa, acarāṇa, vipluta, and atyānanda yoni vyapat. All the clinical features of candidiasis are satisfied by slaishmiki, upapluta, aticaraṇa yoni vyapat and specially more close resemblance of nidān, lakshana etc of v.v.c. are found with upapluta yono vyapat, whereas in acarāṇa and atyānanda the features except dyspareunia are present. The condition vipluta can also be considered similar to vulvo vaginal dynia with symptoms like pain in a daily basis. So vulvo vaginal candidiasis can be compared to upapluta yonivyapat.

CONCLUSION:

Upapluta mentioned especially for pregnant ladies by acarya Caraka can be considered as vaginal infections during pregnancy. In Ayurveda classics, the physiological and pathological aspects of female reproductive system are explained under various prakaraṇas (chapters) like yoni vyapat, artava duṣṭi, garbhavakrantiya, garbhini vijñana and sutikopakramaṇiya adhyaya. The cardinal symptoms of vulvo vaginal candidiasis such as yoni srava (vaginal discharge), yoni kaṇḍu (itching), daurgandhya (foul smell) etc are exclusively mentioned under upapluta yoni vyapat.

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