



## Case Report

### MANAGEMENT OF *KAPHAJA YONI VYAPAT* BY *PANCHAVALKALA ARKA* W.S.R TO VUVLOVAGINAL CANDIDIASIS- A CASE REPORT

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**KEYWORDS:** *Kaphaja Yoni Vyapat*, Vulvovaginal candidiasis, *Panchavalkala arka*, Vaginal Wash.

#### ABSTRACT

Vulvovaginal candidiasis is caused due to different candida species, most commonly *C.albicans*. It occurs in 1-14% of all women of reproductive age throughout the world and its prevalence in India is estimated to be 30%. It may be physiological condition but when turns into pathological, produces associated symptoms such as pruritus, backache, white discharge with foul smell and alters the pH of the vaginal flora. This can be correlated to the *Lakshanas* of *Kaphaja yoni vyapat*, where there will be *Kaphavrudhi* all over the body. Management of this condition is by using *Ruksha, Katu, Ushna* dravyas. *Sthanika Chikitsa* such as *Yoni Prakshalana* (douching), *Yoni Pichu* (tamponing per vagina), *Yoni Varti* (local use of pessaries) and *Yoni Dhoopana* (fumigation) have been mentioned and these modalities are found effective in treating *Kaphaja Yoni Vyapat*. During the current era, many vaginal washes are available easily over the counter and women prefer using such preparation, when they come across vaginal itching and discomfort and abnormal vaginal discharge. Here is an effort to prepare a colorless, odorless solution, adopting the principals of Ayurveda which can be convenient for washing easily at home for women. **Methodology:** Here is a case report of a patient with complaints of *Kaphaja Yoni Vyapat* diagnosed vaginal candidiasis by swab smear test selected from Outpatient Department of SDM Ayurveda hospital Hassan. *Panchavalkala Arka* will be given to the patients and advised to wash it twice a day for 7 days. **Results:** Local therapies such as *Sthanika Chikitsa* have lot of potential in treating *Yoni Vyapat* and in *Panchavalkala Arka* the drugs with its *Guna Karma* helps in breaking the *Samprapti* of *Kaphaja Yoni Vyapat*. **Discussion:** *PVQ Arka* is a liquid preparation obtained using *Arkayantra* which contains the 5 *Ksheeravruksha dravyas* and indicated for *Shotha*. The *Dravyas* by its *Guna Karma Vranashodana, Ropana, Yonidosahara, Kandugna* properties helps for the treatment of *Kaphaja Yoni Vyapat*. Hence here is an attempt to use *Panchavalkala* in *Arka* form and help the women kind as an easily available Ayurvedic vaginal wash in treating Vuvlo Vaginal Candidiasis.

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#### INTRODUCTION

Vaginal flora consists of various species of microorganisms (bacteria)- forming a surface film (Biofilm) on vaginal mucosa (protective barrier). Normal vaginal flora consists of physiological bacteria (90%) which help to prevent against infections.<sup>[1]</sup> It maintains the healthy acidic pH which is anti-bacterial. Pathological bacteria mainly *Gardnerella vaginalis* proliferates when the vaginal environment becomes alkaline due to external

factors. When the symbiosis between the physiological and pathological bacteria is lost, the disruption in the vaginal ecosystem leads to bacterial vaginosis. Changes occurring in pH leads to imbalance of vaginal flora and risk to infections. Acidity of the vagina indicates resistance of vagina to external microbes. Whenever the superficial epithelial cells of the vagina break down and liberates glycogen the *Döderlein's bacilli* starts its

action and produces lactic acid. This lactic acid is the media where the fungi start developing leading to pathogenic condition called as Vulvovaginal candidiasis. [2]

### Incidence and Prevalence

Approximately about 1/3<sup>rd</sup>, 1-14% of all women of reproductive age complaint of abnormal vaginal discharge. Overall prevalence rate is 55.6% and in pregnant women it is estimated at 73.3%. whitish vaginal discharge is found in 76.3% and discharge with foul and smell is found in 49.6%. *Candida albicans* is prevalent in 63.3% of women. [3] It can be correlated to the vulvovaginal candidiasis. Vulvo-vaginal candidiasis is caused by *C. albicans* which is a gram-positive yeast like fungus or any other yeast infections.

Vulvovaginal candidiasis has clinical features such as vaginal discharge with pruritis and on examination there is thick curdy white cottage cheese type of discharge adherent to the vaginal walls. Vulva is usually red and inflamed and on per vaginal examination there in tenderness and multiple oozing spots on removal of the white flakes. This condition occurs in pre-disposing factors such as diabetes, pregnancy, and continuous use of broad-spectrum antibiotics, intake of combined oral-contraceptives, obesity and immune-compromised state such as HIV and others. It can be diagnosed as presence of *Pseudohypae* on wet smear culture [4].

*Kaphaja Yoni Vyapat* caused due to vitiated *Kapha* and is characterized by *Picchila*, *Sheeta Kanduyukta Yonisrava* [5] is one among the commonest complaints encountered in the *Stree Roga OPD* [7].

The word "Arka" in Sanskrit is derived from the root word *RU-Gatau*, meaning *Gati* (motion) i.e.,

water imparts motion to the contents of the ingredients added and the desired active ingredients is separated from the contents and the volatile oils and active constituents of the drugs are collected from the special instrument called as *Arka-Yantra*. Hence the final Result is called as *Arka* [6]. Here *Panchavalkala Arka* as described in the *Arka-Prakasha 4<sup>th</sup> Pada* has been selected for *Kaphaja Yoni Vyapat*.

Indications of *Ksheerivruksha* include *Vrana* and *Shotha* which can be seen in *Kaphaja Yoni Vyapat* and hence this *Arka* was selected for the study.

Aims and objectives of the study includes preparation of *Panchavalkala Arka*, to evaluate the efficacy of *Panchavalkala Arka* on symptoms of *Kaphaja Yoni Vyapat* and to evaluate the effect of *Panchavalkala Arka* on pH.

### Methodology

A patient with complaints of white discharge, vaginal itching selected from OP/IP of Department of *Prasuti Tantra* and *Stree Roga*, SDM College of Ayurveda & Hospital, Hassan. Duration of the study was for 1 week. Assessment was done before and after the study period. Married women having clinical signs and symptoms of *Kaphaja Yoni Vyapat* and Microscopically positive for *Pseudohypae* were included in the study.

Subjective criteria were assessed by relief in the signs and symptoms of the disease. Local signs and symptoms of *Kaphaja Yoni Vyapat* as described in the texts- *Picchilasrava*, *Sheeta Srava*, *Kandu*, *Alpa Vedana*. And wet vaginal smear positive for *candida albicans*.

**Subjective Parameter** [8]- Scoring was given depending upon the severity of disease.

**Table 1: Gradings of Subjective Parameter of *Kaphaja Yoni Vyapat***

Parameters	Grade 0	Grade 1	Grade 2	Grade 3
<i>Picchilasrava</i>	Absent	Mild moistening present	Moderate, wets undergarments	Severe, requires pads
<i>Sheetasrava</i>	Absent	Mild moistening present	Moderate, wets completely but doesn't require pads	Severe, requires pads
<i>Yoni kandu</i>	Absent	Mild without scratch	Moderate without excoriation	Severe with excoriations
<i>Yoni vedana</i>	Absent	Mild pain during pain	Moderate not disturbing sleep	Severe disturbing sleep
Quantity of white discharge	25% of cervix covered	50% of cervix covered	75% of cervix covered	100% of cervix covered

## Case Report

- Age: 29 years
- Occupation: Housewife
- Religion: Hindu
- **Pradhana Vedana/Main Complaint:** Pt c/o white discharge per vagina associated with vaginal itching for 5 months.
- **Anubandhi Vedana/Associated Complaint:** Pt c/o irregular menses with irregular bleeding during menses since 5 months
- Personal History/*Vayyaktika Vruttanta*
  - *Ahara:* Vegetarian food, *Sarva rasa misrita*
  - *Nidra:* *Prakrutha, Diwaswapna* +
  - *Mala Pravruithi:* *Prakrutha* once a day
  - *Mutra Pravruithi:* *Prakrutha*, 5-6 times a day
  - Nature of Work: Housewife, moderate manual work

## Gynecological History

- Age of Menarche: 16 years
- Menstrual History: 4-5 days/45-60days
- Pain- Present (+)
- Clots- Absent
- Foul Smell- Absent
- Associated Complaints- WDPV + during intermenstrual period

## Obstetrical History

- ML- 1 ½ Year
- Non-consanguineous marriage  
*Purva – Chikitsa Vruttanta*
- Ayurvedic medicines for irregular menses for 1 month
- General examination, *Dashavidha* and *Asta sthana pareeksha* was assessed and found to be normal with *Kaphavataja Prakriti*
- P/A Examination: Soft, non-tender  
Gynaecological Examination
- P/S Examination: Cervix – White discharge covering 75% of the cervix
- P/v- NS/AV/FF



Figure 1: Per Speculum Examination

**Investigations Routine Investigation**

- Hb- 12.2gms%
- Under normal limits
- PAP Smear- Was negative for intraepithelial- neoplasms
- Wet Mount Vaginal Smear was done - Before Treatment and there was presence of Pseudohyphae which denotes the presence of candida albicans species.

Pseudohyphae



Positive for pseudohyphae  
Growth culture yields candida albicans

**Figure 1: Before Treatment Wet Mount Vaginal Smear (Microscopic View)**

*Sambhavitha Vyadhi Vinischaya-Kaphaja Yoni Vyapat* Differential Diagnosis

**Table 2: Differential Diagnosis According to Ayurveda**

Disease	Inclusion criteria	Exclusion criteria
<i>Acharana yoni vyapat</i>	<ul style="list-style-type: none"> <li>• <i>Yoni kandu</i></li> <li>• <i>Jantujanya</i></li> </ul>	No <i>Picchilashwetavrava</i> No <i>Yoni vedana</i>
<i>Kaphaja yoni vyapat</i>	<ul style="list-style-type: none"> <li>• <i>Nidana- kaphakaraahara, Vihara</i></li> <li>• <i>Picchila Shwetha yuktasrava</i></li> <li>• <i>Yoni kandu</i></li> <li>• <i>Yoni shula</i></li> </ul>	

**Table 3: Differential Diagnosis According to Modern**

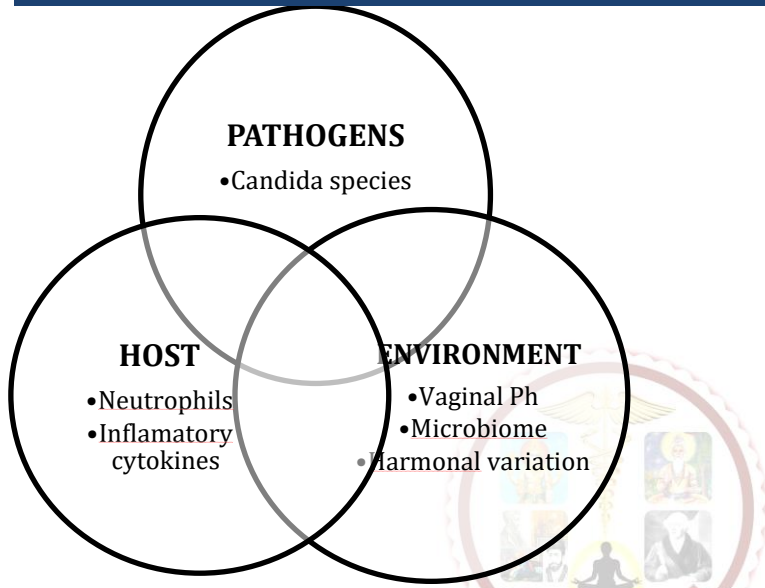
Diagnosis	Bacterial vaginosis	Trichomoniasis	<i>Candida albicans</i> - vaginitis
Examination	Thin, off-white discharge per vagina with Fleshy odour No inflammation	Thin, yellowish-green mal-odorous, frothy discharge Vaginal inflammation is present	Thick cottage -cheese discharge per vagina Vaginal inflammation
Lab. Findings	Positive for whiff's test	Presence of motile trichomoniasis	Presence of Pseudohyphae on wet mount vaginal smear

**Final diagnosis**

*Kaphaja yoni vyapat* (vulvovaginal candidiasis)

Diagnostic tools (*Nidana Panchaka*)

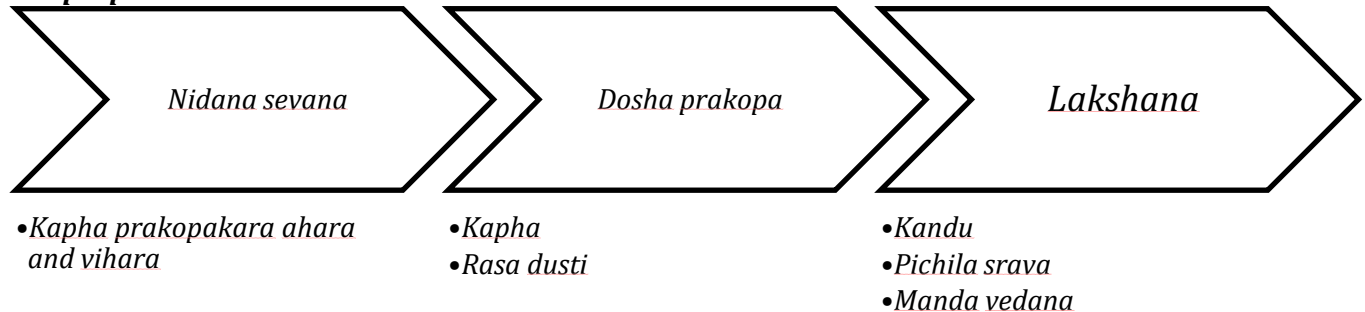
<i>Nidana</i>		
<p><i>Aharaja</i></p> <ul style="list-style-type: none"> <li>•Intake of <i>Kaphavrudhikara ahara</i></li> <li>•Intake of curd during night</li> <li>•Carbohydrate rich food</li> <li>•Consumption of excessive milk and milk products</li> </ul>	<p><i>Viharaja</i></p> <ul style="list-style-type: none"> <li>•Sedentary lifestyle</li> <li>•<i>A-vyavyama</i></li> <li>•<i>Diwaswapna</i> (wakes up at 8.00am )</li> </ul>	<p>Others</p> <ul style="list-style-type: none"> <li>•Weight gain since 5 months</li> <li>•<i>Rutu viprayaya</i> (change of place)</li> <li>•Change in lifestyle after marriage</li> </ul>



**Figure 4- (A) Nidana of Kaphaja Yoni Vyapat (B) Causes for Candida Albicans**

*Purva Roopa* – *Sarvadaihika Kapha Vrudhikara Lakshanas*- Weight gain, irregular bleeding, irregular menses  
*Roopa* - white discharge per vagina (*Yoni srava*), *Yoni Kandu*, foul smell

**Samprapti**



**Figure 5: Samprapti of the Disease**  
**Table 5: Samprapti Ghataka of the Disease**

<i>Samprapthi Gataka</i>	
<i>Dosha</i>	<i>Kapha pradhana</i>
<i>Dushya</i>	<i>Rasa raktaadi</i>
<i>Agni</i>	<i>Jataragni</i>
<i>Ama</i>	<i>Jataragni janya</i>



<i>Srotas</i>	<i>Arthava vaha</i>
<i>Srotodusti</i>	<i>Ati pravruthi</i>
<i>Udbhava sthana</i>	<i>Amashaya</i>
<i>Vyakta sthana</i>	<i>Garbhashaya</i>
<i>Roga marga</i>	<i>Abyantara</i>

**Chikitsa Siddhanta**

As per *Charaka acharya*, principals for treatment of *Kaphaja yoni vyapat* were adopted. Management of *Kaphaja yoni vyapat* should be done by using *Ruksha, Katu Ushnadravyas, Sthanika chikitsa* such as *Yoni prakshalana, Yoni pichu, Yoni Varti and Yoni Dhoopana* have been mentioned and these modalities are found effective in treating this condition. [9-11]

**Preparation of PVQ Arka**

**Panchavalkala Arka was prepared as per Arka prakasha**

Initially 80 grams of *Panchavalkala Kwatha Churna* was taken and soaked with 500ml of distilled water and was kept overnight. This helps in percolation of the ingredients. Later this liquid is kept in *Arka Yantra* sealed well with cork lid/mud and kept over medium flame. The heating mantle (boiler) provides heat and maintains the optimum heat throughout the procedure. A condenser which functions as a cooling agent of vapour produced either by circulation of water or water at air temperature is collected. There is another receiver/beaker kept at another end which collects the condensed liquid. The basic processes involved in distillation are evaporation and condensation. The procedure depends upon different boiling points of the drugs and time will be taken accordingly.

- **Evaporation** - Free escape of vapours from the surface of the liquid at given pressure takes place
- **Condensation**- It is the process of vaporization where the liquid contents are converted into water vapour at normal atmospheric pressure of the same temperature. The constant heat is required for the process and this same quantity of heat (the latent heat of vaporization is liberated).[12]

This *Panchavalkala Arka* has more potency, palatability, and has greater shelf-life. And comparative lesser dose is required and has greater bioavailability.

PREPARATION OF PVQ ARKA -



80 grams of Panchavalkala churna is taken



Soaked in 500ml water overnight



Kept in *Arka yantra* till the droplets of *Arka* gets collected PH-4.6

Figure 5: Preparation of *Pancha-Valkala Arka*

*Panchavalkala Arka* was diluted with water (100ml water) and was used for wash for twice a day for 7 days.



Study of panchavalkala arka on the slide plate prepared from the vaginal smear

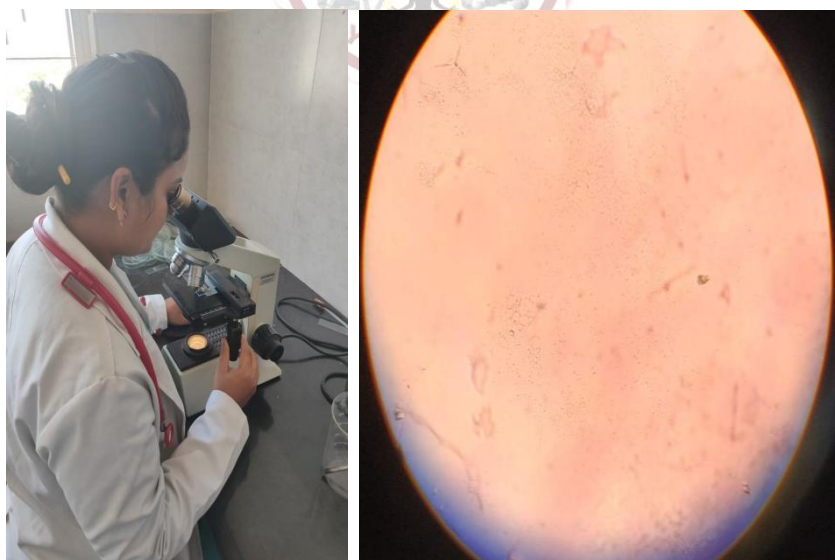
### Invitro Evaluation of *Pancha Valkala Arka*

Slide Culture preparations was done in order to identify the candida albicans growth in vaginal smear and to observe the changes of *Panchavalkala arka* on Candida albicans. It is essential to observe the precise arrangement of colonial conidiophores and the way these spores are produced when the *Arka* is inserted in the Media. Riddle's simple method of slide culturing permits the fungi to be studied virtually in-situ easily. [13] One plate slide of nutrient agar is used and using a sterile blade the agar block is drilled in the centre and the small quantity of *Panchavalkala arka* to be studied is inserted inside the pit. The plate is incubated at 26°C until the growth and sporulation occurs. It is observed that the resistance is developed around the pit made in the agar media. This infers that the liquid (*Panchavalkala Arka*) is helpful in the destroying the candida albicans species.

### RESULTS

After treatment for 7 days there was no Pseudohypae growth seen microscopically and the wet mount swab shows negative for the candida growth.

### After treatment



No growth of psuedohyphae seen

Figure 6: After Results- Absence of Psuedohyphae In Microscopic View In Wet Mount Vaginal Smear

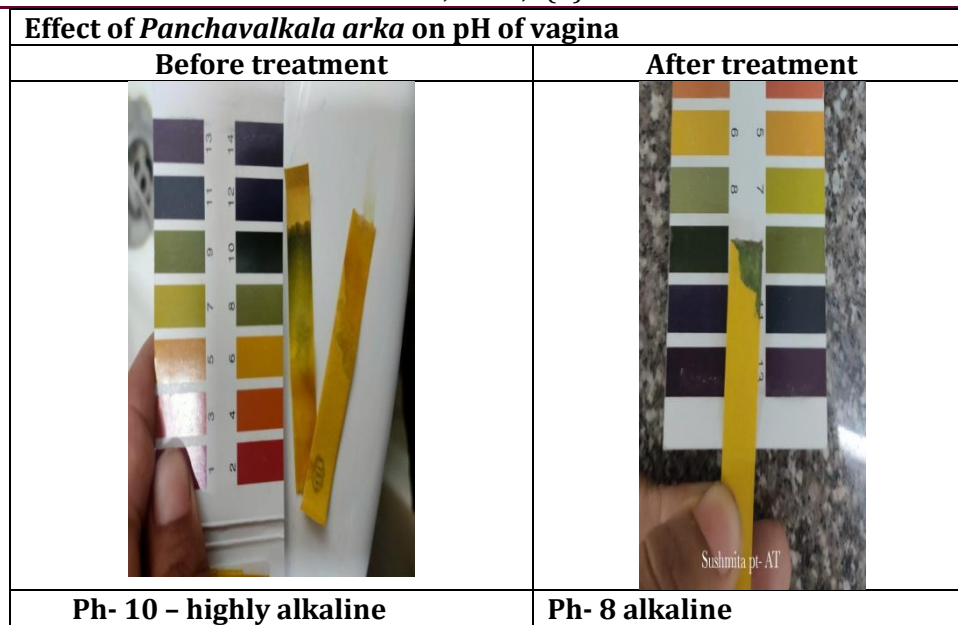


Figure 8: Changes on pH

There was not much difference in the pH value and *Panchavalkala arka* had no significant changes on the pH values.

Table 6: Assessment Criteria

Parameters	Before Treatment	Scoring	After Treatment	Scoring
<i>Picchilasrava</i>	Present	+3	Absent	0
<i>Sheetasrava</i>	Present	+2	Reduced	+1
<i>Yoni Kandu</i>	Present	+3	Absent	0
<i>Yoni Vedana</i>	Present	+1	Absent	0
Quantity of Discharge	Present, 1 pad/day	+3	Reduced	+1

**DISCUSSION**

During the current era, many vaginal washes is available easily over the counter and women prefers using such preparation, when they come across vaginal itching and discomfort and abnormal vaginal discharge. These V-Washes available are chemically prepared (lactic acid 1.2%w/v, sorbitol 1%w/v, cocamidopropyl betaine 7%w/v, polyquaternium-70.5%w/v, melaleuca alternifolia 0.05%w/v, hippophaerhamnoides 0.25%w/v.). These chemicals on long use cause allergic reactions, vaginal dryness. *Panchavalkala arka* is colourless, odourless liquid made up of 5 *Ksheerivruksha* (*Vata, Udumbara, Plaksha, Pareesha ashwatha*) without any other chemicals used. These *Dravyas* has *Katu, Tiktakashaya rasa, Laghu ruksha teekshna guna, Ushnaveerya, Katuvipaka, Kapha pittagna vranashodana, Ropana, Yonidoshahara, Kandugna* properties.

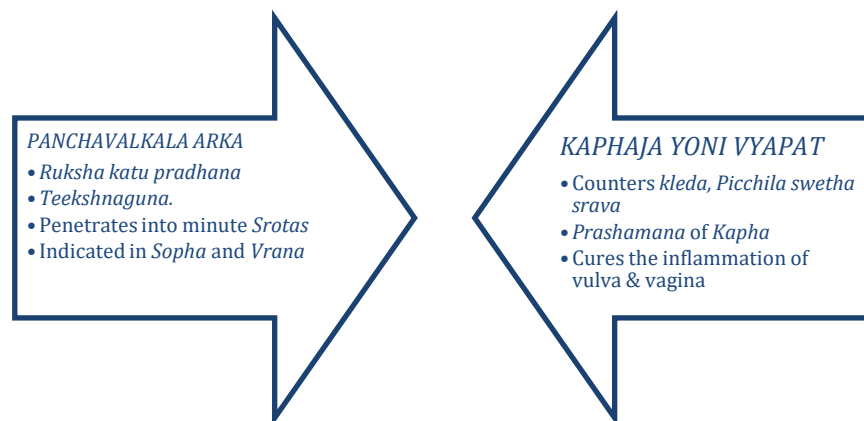


Figure 9: Mode of Action of *Panchavalakala Arka* on *Kaphaja Yoni Vyapat*



## Mode of Action

*Panchavalkala arka* has quick absorption as compared to the *Kashaya* which is mentioned in Ayurveda classics. According to Aphale S et al., a total of 77 phytocompounds<sup>[14]</sup> were identified in *Panchavalkala* and Phytochemicals of the *Arka Kalpana* can the capacity to retain for 1-2hrs.

Vaginal wash with *Panchavalkala Arka* provides adequate tissue perforation, oxygenation, restores the disrupted anatomical and physiological functioning, altering the pH level of the vaginal flora.

## CONCLUSION

Management of this condition is by using *Ruksha, Katu, Ushna dravyas. Sthanika Chikitsa* such as *Yoni Prakshalana* (douching), *Yoni Pichu* (tamponing per vagina), *Yoni Varti* (local use of pessaries and *Yoni Dhoopana* (fumigation) have been mentioned and these modalities are found effective in treating *Kaphaja yoni vyapat*. Here is an effort to prepare a colourless, odourless solution, adopting the principals of Ayurveda which can be convenient for washing easily at home for women.

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