

## Chapter 3:

# *Intervention through Ayurveda*

### **Drug Review**

In Ayurveda the success of Chikitsa depends completely upon four important factors analogous to the four legs that support table. They are collectively known as chikitsachatuspada

***“Bhishag dravyanya upasthata rogi pad chtushtayam,***

***Gunvat karnam gyeyam vikarvy upashaantaye,” (Ca.Su.9/3)***

Among these four factors of treatment, drug is second important factor after physician. Thus, the selection of a proper drug in the management of disease is very important. In Ayurveda *Aushadha* & *Bhaishaja* are two terms used for drug which keeps the threat of disease.

***Bahuta tatra yogatwam anekvidhi kalpana,***

***Sampat cha iti chatushkoyam dravyaram guna uchayate,” (Ca.Su.9/7)***

Acharya Shusruta has given more vast definition of drug-

***“Prashasta desh sambhootam.....bhedujam pad uchyte” (Su.Su.34/21-22)***

The drug should be harvested in appreciable land should be taken in appreciable time, the dose should be appropriate, looking wise, taste wise, & smell wise it should be liked by patients, it should diminish the desired *dosh* without creating any complication & should be administered at appropriate time.

To achieve maximum effect, a drug is expected to have a good symptomatic relief action, an antagonistic approach towards aetiopathogenesis, minimum side effects & good compliance. The aim of Ayurveda is to maintain *Swasthya of swasthapurush* & to care the disease of pathological condition of the patient. In other words, Ayurveda guides the masses to overcome the diseased condition by preventive methods, for this purpose, in Ayurveda, the vast & rich treasure of medicine, with remarkable description of fascinating plant population are given.

**WHO** Defines Drug **“As any substance or product that is used or intended to be used to modify or explore physiological symptoms or pathological states for the benefit of the recipient.”** The definition appears more in compliance with terms of Ayurveda, which aims at the preservation of good health apart from removing diseases. The ultimate goal of Ayurveda is *prakriti sthapana*, which can be achieved with the help of proper drug combination. In *Kaphaj yoni vyapad* or *Sweta pradara* producing the local symptoms, *Bahirparimarjana* in thought to be best form of treatment along with administration of drug with following effects:

1. *Shodhana Karma* i.e. purifying effect.
2. *Stambhana Karma* i.e. Astringent effects.

3. *Yoni Sankochana karma* i.e. constriction effects.
4. *Kriminghana* i.e. Antimicrobial effects.
5. *Sbotbahara Karma* i.e. Ant inflammatory effects.
6. *Kandughana karma* i.e. Anti pruritic effects.
7. *Shulaprasmana* i.e. analgesics effects.
8. Acidifying effects.
9. *vatakaphashamaka karma*.
10. *Vranaroana Karma* i.e. healing effects.

The drug with above effects will not only help in restoring the normal condition of vagina, but also serve the purpose of suppressing discharge. For the present study the selected drug combination is chosen with ease of availability along with high degree of clinical effects.

### **Contents of Dhatkyadi Yoga &Lodhra Kashaya**

Keeping aims & objectives in mind two form of treatment modality is chosen, one for systemic use in the form of Ghanvatii.eDhatkyadi Yoga, which contains five drugs namely *Dhataki*, *Aamalaki*, *Bilwa*, *Nagkesbar*, & *Darubharidra* which is prepared in *GhanVati* form. Another form for local use or in the vaginal douche form with Decoction of *Lodhra*. This not only sway away the pre existing discharges which is due to contamination of vaginal wall due to infection with microorganism leading to raised pH of vagina. Hence to achieve maximum effect drug should have astringent, antiseptic & antimicrobial effect which could brought the raised pH of vagina into normal range i.e acidic 4.5.

#### **Dhataki**

**Botanical name** – *Woodfordiafruticosa*

**Family** – Lytheraceae

**Gana** – Sandhaniya, PurishaSangrahaniya, (Ca.), Priyangavadi, Ambasthadi (Su.), Haritkyadi Varga (B.P.)

**Sanskritname** – Dhatuspushpi, Tamrapushpi, Subiksha, Vahnijwala, Bahupushi.

**Hindi name** – Dhaya

**English name** – Fire flame bush.

**Chemical constituents** – 20% tannin from flowers.

**Part used** – Dried flower

**Properties** –

<b>Rasa</b>	-	Katu, Kashya
<b>Guna</b>	-	Laghu, Ruksha
<b>Virya</b>	-	Shīta
<b>Vipaka-</b>		Katu

**“Dhatke katuka sheeta mradukratuvara laghu****Trishna ateesara pitta asra vish krimi visarpa apajit” (Ba.P. Page no. 108)****Karma** – *Kaphapittashamaka, Dahaprashmana, Jantughna, VranaRopana, Stambhana, Yonisravahara,***Classical references:** (Classical uses of medicinal Plants by P.V, Sharma)**Shvetpradre “dhatkyashch akshamatram vaa.....****Pandupradar shantyartha paayyandulambuna”****Vranropne – “dhatkichurna lodhraerva tatha rohanti te vranaha” (Chakradutta)**

1. **Leucorrhoea** – Powder of *Dhataki* or *Amalaki* 40gm mixed with profuse honey should be used for leucorrhoea. (V.M.63.4)
2. **For conception** – The women during season should take *nilotpala* mixed with *dhataki* flower & honey in the morning by this she conceives. (G.N. 6. 5. 9)

S. N.	Nighantu	Rasa	Guna	Virya	Vipaka	Action on Doshas	Therapeutic uses
1	Bhavprakash	<i>Katu, Kashaya</i>	<i>LaghuM aridu</i>	<i>Sita</i>	-	-	<i>Trishna, AtisarRaktapitta, VishakrimiVisarpjit, Madakrita, Vishanashani</i>
2	Dhanvantari	<i>Katu</i>	-	<i>Ushna</i>	-	-	<i>Atisarhara, Garbasthapni, krimiRaktanuta</i>
3	Madanpal	<i>Katu, Kashaya</i>	<i>Laghu</i>	<i>Sita, manda, ushna</i>	-	-	<i>Trishna, Atisar, Raktpittavishakrimivisar aphara</i>
4	Raj nighantu	<i>Katu</i>	-	<i>Ushna</i>	-	-	<i>Madakrita, Vishanashani, pravahikatisarabar</i>
5	Kaidev	<i>Katu, Kashaya</i>	<i>LaghuRu ksha</i>	<i>Sita</i>	-	-	<i>Madakrit, Trishnaraktapitta, visarpa, vishatisarkrimijit</i>

**Therapeutic Uses:** The dried flowers are credited with stimulant & astringent properties which are available in the market. It is much used in bowel complaints & hemorrhages. It is also administered in menorrhagia, & seminal weakness. The drug also shows antipyretic action which compares favorably with that of salicylic acid. The dried flowers are powdered & sprinkled over ulcers & wounds to diminish discharge & promote granulation. (The wealth of India vol. X Sp. – W, CSIR, New Delhi, Page No.-586-587)

**Amalaki:**

<b>Botanical Name</b>	-	<i>Emblīca officinalis</i>
<b>Family</b>	-	Euphorbiaceae
<b>Gana</b>	-	Kusthaghna, Vyasthapana (ca.), Mustadi, Triphala (su.), Haritkyadi Varga (B.P.)
<b>Sanskrit Name</b>	-	Amalaki, Dhartri, Vayastha, Vrishya, Amrita, Shiva, Dhatriphal, Sriphala, Jataphalarasa
<b>Hindi Name</b>	-	Amala
<b>English Name</b>	-	Emblīca Myrobalan
<b>Chemical Constituents</b>	-	Tanin, gallic acid, Aligic acid, glucose, vit.-C, Pectin
<b>Parts used</b>	-	Fruits, Seeds, Laves, Roots bark, Flowers

**Properties:**

<b>Rasa</b>	-	Pancharasa, Lavanavarjit
<b>Guna</b>	-	Laghu, Ruksha
<b>Virya</b>	-	Sita
<b>Vipaka</b>	-	Madhura

*“hareetkeesamam dhatrifalām kintu visheshtaha,  
Raktpitt pramehghanam param vrashyam rasayanam,  
Hanti vatam tat amlatva atpittam madhuryshaetyataha,  
Kapham ruksha kashayatvat falam dhattyastridoshjit” (Ba.P.)*

**Karma** – Tridoshabara, dueto Amla Vata shamaka, madhura & Sheetalta leads to pittashamana & Rukshata & kashayata has effect on kapha, Dhatprashmana, Vrishya, Garbhasthapan.

### Classical Reference:

#### 1. Pradara *“jalen amalakeebijam kalkam vaa sasitaamadhum”*

- Paste of amalaki seeds mixed with sugar & honey should be taken with water or powder or juice of amalaki should be administered with honey (Ca.ci. 30/117)
- Paste of Amalaki seeds mixed with honey & sugar alleviates leucorrhoea in 3 days (Ba.P. ci. 69/10)
- Amalaki seeds taken with rice water alleviates menorrhagia or amalaki powder with udumbara decoction & taken with cold water does the same (V.M. 2/9).

2. Burning sensation in female genitalia- Amalaki juice with sugar alleviates burning sensation of vagina. (Ba.P. Ci 70/40)

### Therapeutic uses:

1. Maximum Potency was recorded in alcoholic extract of *Emblica officinalis* against *Staphylococcus aureus*, *S. epidermidis*, *Salmonella typhimureun*, *E. coli*, & *Candida albicans*. Phytochemical analysis of these extracts revealed the presence of many biologically active plant substances, including tannins, glycosides, flavonoids, saponins, & phenolics.

(Ref. Abs. by Ahmed et.al Antimicrobial potency & Synergistic activity of five traditionally used Indian medicinal plants, Jr. of Medicinal & aromatic plant sciences V 22 (4A), 23 (1A) p-173-176, 2000-01, MAPA-2001-04-07 vol. 24. No. 3)

2. Oral Administration of Multiherbal composite drug containing *Emblica officinalis*, *Holorrhoeaantidysentrica*, *picrorhizakurroa*, *Mesuaferrea*, *Terminalia chebula*, *Berberis aristata* to 22 patients showed significant decrease in bleeding & constipation by fourth week of therapy.

(Ref. Abs. – by paranjape et al, Efficacy of indigenous formulation in patient with bleeding piles, a preliminary clinical study fitoterapia v 71 (1); P-45, 2000, MAPA-2000-05-2764, Vol. 22, No.5 Oct. 2000).

3. In vitro 28 ethnolic extract of 27 plants were tested for their antimicrobial activity against four bacteria, i.e. *E. coli*, *B. subtilis*, *Staph. Aureus*, & *Strep pneumoniae*. Extracts of *Emblica officinalis* (fruits & leaves) & *Punicagranatum* showed strong anti bacterial but moderate fungal activity.

(Ref. Abs. – Zaiba et. Al. 1998, Antimicrobial potency of selected medicinal plants with special interest in activity against phytopathogenic fungi, Indian veterinary medical journal V (4), P-299-306, 1998 MAPA vol. 22 No. 3 June 2000-03-1740).

S.N	Nighantu	Rasa	Guna	Virya	Vipaka	Action on Doshas	Therapeutic uses
1	Bhav Prakash.	Amla, Madhura, Kashaya	Ruksha	Sita	-	Tridoshabara	Raktapittapramehanashak, Vrishya, Rasayana
2	Dhanvantari	Kashaya, Katu, Tikta, Amla,	Ruksha	Sita	-	Tridoshabara	Vrishya, Rasayana, Jwaraghna
3	Madanpal	Amla, Madhura, Kashaya	-	Sita	-	-	Vrishya, Ayurvedbaka, Raktapittabara
4	Raj Nighantu	Kashaya, Amla, Madhura,	Laghu	Sita	-	KaphaNashak	DabapittavamimehasophaghnaRasayana
5	Kaidev	Amla, Madhura, Kashaya	Ruksha	Sita	-	Tridoshabara	Raktapittapramehanashaka, VrishyaRasayana

**Bilva:****BotanicalName** - *Aeglemarmelos***Family** - Rutaceae**Gana** - Asthanopaga, Sothahara, Svayathuhara, arshoghna (Ca.), Atisaraghana (Su. ch. 12), BrihatPanchmoola, Varunadi, Ambashthadi (Su.)**SanskritName** - Sivadruma, Sadaphala, Durarudha, Trisikha, Bilva, Shandilya, Shailush, Sripkala, Malloor, Gandhagarbha, Kantaki Mahakapith, Granthie**Hindi Name** - Bael**Chemical Constituents** - Fruit-Mucilage, Pectin, Sugar, Tanin.

Root &amp; Stembark – Marmelosin, Xanthotoxin,

Umbelliferon.

Leaves – Aegelin, Aegelinin (Chem. Abst. 1985, 103, 17.5468)

**Parts used** - Root, Bark, Leaves, Fruits

**Properties:**

**Rasa** - Kashaya, Tikta

**Guna** - Laghu, Ruksha

**Virya** - Ushna

**Vipaka** - Katu

*“Shreephals tvarsitkto grahee ruksho agnipittjit,  
Vaatshleshmaharo balyo laghu rushnashcha pachnaha,,”  
(Ba.P.)*

*“kaphanilaharam teekshnam snigdham sangrahi deepanam,  
Katu tikta kashayoshanam balam bilwam udahirtam,  
Vidhyat tadev sampakwam madhuranurasam guru,  
Vidahi vishtambhakaram doshkrat putimarutam,,”  
(Su. Su. 46)*

*“bilbam samgrahika deepaneeya vatakaphaprashamanaanaam”  
(Ca. Su. 25)*

**Karma:** Due to Ruksha, Laghu, Kashaya, & Tikta, it alleviates kapha, due to ushna property it alleviates vata. Hence it is kaphavatashamak.

**Classical References:**

1. The unripe fruit is powdered & taken with water in dysentery. **(Ca. Ci. 19)**
2. Bleeding piles: Fruit pulp is given with Takra in bleeding piles. (Chakradutta)
3. In the swollen conditions & pain in ribs, formulation with its leaves alleviates the pain & oedema. (Indian Medicinal Plants-2000)
4. The Oedematous conditions of uterus, post partum Infections & leucorrhoea are effectively controlled with the decoction of its roots. (Indian Medicinal Plants-2001)

**Therapeutic References:**

The extracts of the leaves of Aegle marmelos were investigated for ant inflammatory property. Extracts caused a significant inhibition of the carrageenan induced pain, oedema & cotton pellet granuloma in experimental subjects. Extracts also produced marked analgesic activity. This study established ant

inflammatory, antiseptic & antipyretic activities of *Aegelemarmelos*. (J. Ethnopharmacology 2005 June, 4:96 (1-2): 159-63)

SN	Nighantu	Rasa	Guna	Virya	Vipaka	Action on Doshas	Therapeutic uses
1	Bhavprakash.	<i>Kashaya, Tikta</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatanashak</i>	<i>Grabi, Ruksha, Agnipittajita, Vata, Shlesmahara, Balyalaghu, Ushnapachana</i>
2	Dhanvantari	<i>Kashaya, Tikta, Madhur</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	-	<i>Tridoshgna, Vata, Kaphashamak</i>	<i>Chardighna, Snigdha, Sangrabi, Deean, Vidabi, Vishatambkari, Doshbirit, Putimarutam</i>
3	Madanpal	<i>Kashaya, Tikta</i>	<i>Laghu</i>	<i>Ushna</i>	<i>Katu</i>	<i>VataKaphapaham</i>	<i>Grabi, Deepanpachan, Hridya</i>
4	Raj Nighantu	<i>Kashaya, Madhura</i>	<i>Laghu</i>	<i>Ushna</i>	-	<i>Tridoshgna, Vata, Shamak</i>	<i>Hridya, Pittajit, Kaphajwaratisaraghn, Ruchik, Deepan</i>
5	Kaidev	<i>Kashaya, Tikta</i>	<i>Ruksha</i>	<i>Ushna</i>	-	<i>Kaphavata, nashak, Pittkarak</i>	<i>Grabi, Deepan, Amaachana, Shulabara</i>

### Nagkeshar:

**Botanical Name** - *Mesuaferrea*

**Family** - Guttiferae

**Gana** - *Eladi, Priyangvadi, Anjandi (Su.), Chaturjaat (Ba.P.)*

**Sanskrit Name** - *Nagkeshar, Nagapushpa, Champeya*

**Hindi Name** - *Peela Nagkeshar*

**English Name** - *Mesua*

**Chemical Constituents** - Seed - Xanthone, Triterpenes,

Manmeisin. Mesuol & Mesuaferrol are also isolated (Indian Journal of Chem. 1968, 7, 1278). Mesuol, Mesuone are having antibiotic property.



**Parts used** - Stamens (Punkeshar)

**Properties:**

**Rasa** - Kashaya, Tikta

**Guna** - Laghu, Ruksha

**Virya** - Ushna (Ishat)

**Vipaka** - Katu

**“Nagphuspam kashayoshnam ruksham laghv aampachanam,**

**Jvar kandu trasha swedchchhrdi hrallasanaashnam,**

**Daurgandhya kushthveesarp kaph pitt vishapaham”**

**(Ba.P.)**

**“nagkesharam alposhnam laghu tiktam kaphapham,**

**Vasti vatayaghnam cha kanth sheersh rujapaham”**

**(Ra. nig.)**

**Karma:**

*Kaphapittashamak.*

**Classical References:**

1. *RaktasraviArsha* - with butter & sugar it is very useful in *Raktarasha* (Ca. ci. 14)
2. Sodhal Nighantu – *NagkesharChurna* with honey or rice water, twice a day cures menorrhagia.
3. Vangasena – *Nagkesharchurna* with sugar cures *Raktatisar*.
4. The paste of stamens is useful in dressing & wounds also seed oil is used in vitiated conditions of vata & skin diseases. The haemostatic or styptic property of *Nagakesarain* very cardinal & is used in many preparation & in used to arrest bleeding in ailments like piles, menorrhagia, dysentery & Raktapitta. (Indian Medicinal plants Dr. P. Paranjape, 2001)

**Therapeutic References:**

1. Mesuaferrea, due to its calophyllide content reduced the increasing permeability in capillaries and toned up the endometrial vascularity, thus checked excessive bleeding. Mesuaferrea plant exhibited antispasmodic, beta blocking & muscle relaxant properties. The herb acted well in combination with Lodhra when prescribed in Leucorrhoea & Menorrhagia. (CCRAS, Pharmacy Research unit Mumbai Indian Jr. exp. Biology 1978, 16)
2. Antibacterial activity of aqueous & alcoholic extracts of 34 plants. Indian medicinal plants including *M. ferrea* against some staphylococcus species (mainly *S. aureus*, *S. epidermidis*, & *S.*

subflava (Phytochemical, Pharmacological & microbiological laboratory Department of Biosciences, Saurashtra university, Rajkot, Gujrat))

S.N.	Nighantu	Rasa	Guna	Virya	Vipaka	Action on Doshas	Therapeutic uses
1	Bhavprakash	Kashaya, Tikta	Laghu, Ruksha	Ushna (Isbat)	Katu	KaphaPittashamak	Deepan, Pachan, Grahi, Vishaghna Styptic
2	Dhanvantari	Tikta	Laghu	Ushna (Isbat)	-	Kaphashamak	Bastivikar, Visha Vatarakta, Kandu Shofa Nashak
3	Madanpal	-	Ruksha, Laghu	Ushna	-	KaphaPittashamak	Aamapachan, Daurgandh, Kustha, Visarap, Vishapaham
4	Raj Nighantu	Kashaya	Laghu, Ushna	Ushna, (Isbat)	-	KaphaVatanashak	Bastirog, Vativikar, Kanthae&Siroroganasak
5	Kaidev	Kashaya	Tikshna, Laghu, Ruksha	Ushna	-	KaphaPittashamak	Aamapachan, Vaman, Hrillas, Kandu, Visara, Sveda, Daurgandha, Kusbha, Trisha, Vishanashak

**Daruharidra:**

**Botanical Name** - Berberisaristata

**Family** - Berberidaceae

**Gana** - Arshoghna, Kandughna, Lekhaniya (ca),  
Haridradi, Mustadi, Lakshadi (su)

**Sanskrit Name** - Daruharidra, Darvi, Katamkateri, Panchampacha

**Hindi Name** - Daruhaldi

**English Name** - Indian Berberry

**Chemical Constituents** - Root & wood – Berberine, Protoberberine,  
Karachine (Heterocycles 182, 19,257)

**Parts used** - Root, Stem, Fruit.

**Properties:**

**Rasa** - Tikta, Kashaya

---

<b>Guna</b>	-	Laghu, Ruksha
<b>Virya</b>	-	Ushna
<b>Vipaka</b>	-	Katu

**Karma:**

*“Tikta daruharidra syat rukshoshna vranmehnut,  
Karan netra mukhotbhootam ruj kandoo cha nashyet,”  
(Dh.Nig.)*

*“Darveekvathsamam ksheer padam paktva yada ghanam,  
Tada rasanjanam khyatam netrayoh paramhitam,  
Rasanjanam katu shelemvish netravigarnut,  
Ushnam rasayanam tiktam chhedanam vrana doshkrat,”  
(Ba.P.)*

*Snotbahara, Vedanasthapana, Vranashodhana, Vranaropana, Chakshushya.*

**Classical References:**

1. Varnaropana – Kalka of Daruhaldichurna (Ca. ci. 13)
2. Daruhaldikwath is given in pistameha (Su. ci. 11)
3. Mukharoga, Raktapradara, NadiVran – Daruharidra given with honey. (Chakradutta)
4. Kamala – Daruhaldikwath with honey is given in kamala. (Chakradutta)
5. Daruharidrachurna with honey or rice water is given in swetapradara (S.N)
6. It is also used in sarpavisha. (S.N)
7. It effectively reduces uterine inflammations, hence is valuable medication for leucorrhoea &menorrhagia. The decoction also helps in healing the ulcers of the cervix. Rasanjana alleviates the diseases of eye & ear, & has purifying property. Rasanjana mixed with honey is useful in application to aphthous sores, abrasions & ulcerations of the skin. (Indian, Medicinal plants, by Dr. P. Paranjape, 2001)

**Therapeutic References:**

1. Berberine, an active constituent of *B. aristata*, exhibits significant antiprotozoal effect specially against trichomonas & its effects were comparable to metronidazole in potency with advantage of being safer & possible replacement in metronidazole resistant cases. *Berberis aristata* is a potent anti-inflammatory agent & thus provides symptomatic relief in vaginitis. (J. Egypt Soc. Parasitology 2001 Dec., 31(3) 893-904).
2. *B. Asistata* due to its quaternary & non quaternary alkaloids exerts potent antimicrobial activity against 16 types of microorganisms viz-gram positive, gram negative bacteria, *Candida* & protozoal

species. It is found to decrease the capillary permeability thus checks excessive discharges from female genital system (Pharmacological investigations of certain medicinal plants, CCRAS, Govt. of India)

S.N.	Nighantu	Rasa	Guna	Virya	Vipaka	Action on Doshas	Therapeutic uses
1	Bhavprakash	Tikta, Kashaya,	Laghu, Ruksha	Ushna	Katu	KaphaPittanashak	VarnyaVarnaprakashak, Pandu, Varna, Apachi, Prameha, Tvakdosha, Vishasbothara
2	Dhanvantari	Tikta	Ruksha	Ushna	-	Raktapittakaphahara	Vranahara, Prembhagbana, Mukha, Karna, Netra, Vikaranut
3	Madanpal	Katu, Tikta	Ruksha	Ushna	-	Shlesmapittanut	VarnyaTvakdahaMeha, Arsa, Sopha, PanduwranaPaba
4	Raj Nighantu	Tikta, Kashaya	Laghu, Ruksha	Ushna	Katu	KaphaPittabara	Rasayana, Jwarabara, Balya
5	Kaidev	Katu	Ruksha	Ushna	-	KaphaPittanashak	Varnaprakashak, Panduvarna, Apachi, Prameha, Tvakdosha, Visha, Shoth bara

**Lodhra:**

**Botanical Name** - Symplocosracemosa

**Family** - Symplocaceae

**Gana** - Sandhaniyashonitsthapana (Ca.) Rodhradi,  
Ambasthadi, Nyagrodhradhi (Su.)

**SanskritName** - Lodhra, Tilvak, Tireet, Shavar, Galva

**Hindi Name** - Lodhra

**Chemical Constituents** - Loturine, Loturidine, Lottuturine, Na<sub>2</sub>CO<sub>3</sub>  
Abrine, Harman

**Parts used** - Bark

**Properties:**

<b>Rasa</b>	-	Kashaya
<b>Guna</b>	-	Laghu, Ruksha
<b>Virya</b>	-	Sita
<b>Vipaka</b>	-	Katu

*“lodhro grahee laghuh sheetshchakshushyah kaphpittnut,*

*Kashayo raktpitt asrag jvarateesaar shothhrat”*

*(Ba.P.)*

**Karma:** Kapha pitta shamak, shothahara, sankochaka, stambhana, GarbhashayashothaSravahara, Chakshushya.

*“Nyagrodh tvakkashayen lodhra kalkam tatha pibet”*

*(Ca.Ci.30/115)*

**Classical References:**

1. **Leucorrhoea:** Paste of Lodhra should be taken with decoction of Nayagrodhra bark (Ca.ci. 30/118)

*“Dhatki churn lodhrerva tatha rohinti te vranaaha”*

*(Chakradutta)*

2. **Wounds:** Powder of Dhataki&Lodhra promotes wound healing.

*(Ca. Ci. 25/67-68)*

3. **Disease of women:**

- In 8<sup>th</sup> month by taking Lodhra, pippali, honey mixed with milk, foetal movement become normal.

*(H.S.3.50.5)*

- *“tumbee patra tatha lodhram sambhagam supeshyet,*

*Ten lepo bhage karyah shreeghram syat yoni rakshata,”*

*(Ba.P.)*

Alabu leaves &Lodhra in equal parts should be powdered & applied as paste in the vagina by this it becomes normal.

*(Ba.P. Ci. 70-*

*12)*

- LodhraAsava is a popular formulation for women’s disease.

*(A.H. Ci. 12.24-28)*

**Therapeutic References:**

In a pharmacological study, a crystalline fraction from the bark was found to inhibit the growth of micrococcus pyogens, E. coli, & Enteric & Dysenteric groups of organisms, it also reduces the frequency & intensity of the contraction in vitro of both pregnant & non-pregnant state of some animals.

The astringent bark is given for the treatment of diarrhoea, dysentery, liver complaints & dropsy. It is also used in conjunctivitis. A decoction of bark is used to stop bleeding of gums. In combination with sugar, it is recommended in the treatment of menorrhagia & other uterine disorder. (Ref. the wealth of India Vol. X: Sp-W, CSIR, New Delhi, pg. 90)

S.N.	Nighantu	Rasa	Guna	Virya	Vipaka	Action on Doshas	Therapeutic uses
1	Bhavprakash	<i>Kashaya</i>	<i>Laghu</i>	<i>Sita</i>	-	<i>Kapha Pitta nashak</i>	<i>Grabi, Chakshushiya, Raktapitta, Raktavikara, Jwara, Atisar, Shothabrit</i>
2	Dhanvantari	<i>Kashaya,</i>	<i>Ruksha</i>	<i>Sita</i>	-	<i>Kaphanashak</i>	<i>Trishna, ArochakaVishanashak, Grabi</i>
3	Madanpal	<i>Kashaya</i>	-	<i>Sita</i>	-	<i>Kapha Pitta bara</i>	<i>Virechaka, Chakshushiya, Asrigdara, JwaraAtisara, Nashana</i>
4	Raj Nighantu	<i>Kashaya,</i>	-	<i>Sita</i>	-	<i>KaphaVata, Raktanuta</i>	<i>ChakshushyaVishanashak</i>
5	Kaidev	<i>Kashaya</i>	<i>Sara</i>	<i>Sita</i>	-	<i>Kapha Pitta bara</i>	<i>Chakshushiya, ShothaAtisar, Asrigdara, Raktasrava, Aruchi, Trishna, Vishanashak</i>

**Classical Reference:**

1. 1-2 Capsules twice daily were used as a regime for a period of one month to one year in young & old women. The herbs of women well being are Asparagus racemosus, Tinosporacordifolia, Ocimumgracissimum and Symplocosrecemosa (Lodhra).

These are well known to support the female hormonal system & enhance sexual well being in women.

(Ref. MAPA 2003-02-0745, Vol. 22, No. 2, Singh et al. "Clinical evaluation with women well being" a formulation designed to treat hormonal disorders in women 2<sup>nd</sup> world congress on "Biotechnological development of herbal medicine" NBRI, Lucknow, UP, India, Pg. No. 147, Feb.,20-22-23).

**OVERALL PROPERTY OF DHATKYADI YOGA & LODHRA**

<u>S.no.</u>	<u>Dravya</u>	<u>Rasa</u>	<u>Guna</u>	<u>Virya</u>	<u>Vipaka</u>	<u>Doshaghata</u>
1.	Dhataki	Katu Kashaya	laghu Ruksha	Sheeta	Katu	kaphapittashamak
2.	Amalaki	Pancharasa	,,	Sheeta	Madhur	tridosahara
3.	Bilva	Kashaya Tikta	,,	Ushna	Katu	kaphavatashamak
4.	Nagkeshar	,,	,, (Ishat)	Ushna	Katu	kaphapittashamak
5.	Daruharidra	,,	,,	Sheeta	Katu	kaphapittashamak
6.	Lodhra	kashaya	,,	Sheeta	Katu	kaphapittashamak

**Rasa** - *Kashaya, Tikta, Katu*

**Guna** - *Laghu, Ruksha*

**Virya** - *Sheeta*

**Vipaka** - *Katu*

**Doshakarma** - *Kaphapittashamak, Kaphavatashamak*

**FORMULATION OF DRUG & IT'S APPLICATION**

In the present dissertation ***“nahi vatadrate yonirnaarinam sampradusyati” (cha chi 30/115)*** principle has been verified with Dhatkyadi Yoga containing five drugs, and Lodhraqwath. The reason behind selection of the drug is their easily availability & manufacturing, cost effectiveness, & their usage in gynaecological disorder. The selected drugs not only treats Leucorrhoea, Vaginitis but prevents recurrence also. It helps to restore the hormonal balance by correcting the disturbance in HPO axis & by providing endurance from stress. It also supplies essential nutrients and tones up the endometrium.

In order to know that how the drug act & to know it's clinical efficacy two form of drug is chosen one in oral form for systemic working and another for local use so as to correct local pathology & for maintaining local cleanness and hygiene. They are as follows:

1. Dhatkyadi ghanvati (for oral use)

2. Lodhra kashaya (for local use)

## **DHATKYADI YOGA:**

All the five crude drugs namely *Dhataki, Aamalki, Bilva, Nagkeshar&Daruharidra* are crushed finely and are boiled with 16 times of water until 1/8 th part is left. Then filter it with fine cloth and again warm it in mild heat until it solidifies and thickens then put it down & dry in shade for making *vati* (tablet) form and the *vati* was prepared according to text. Then the prepared *vati* was administered to all patients as 2 *vati* b.i.d in both groups for 21 days.

## **LODHRA KASHAYA:**

The main causative factor behind the leucorrhoea is unhygienic condition of genitalia hence to remove the local pathology of vagina & to restore the healthy status of vagina 15 patients of group B are given vaginal douching of decoction of Lodhra in 600-800 ml. quantity through *uttarbasti*. Lodhra is having a very good astringent, healing and anti-inflammatory property. As it also works against variety of microorganism. The *kashaya rasa* due it's *stambhanaguna* controls the *srava* or discharge coming out per vaginum and also purifies the tract.

For vaginal douching the Uttar basti introduction is as follows:

## **UTTAR BASTI**

### **DEFINATION:**

*“uttarbasti sangya uttarmarg deeymaantaya kinwa srestaguntaya uttarbastih”*

*(Ca. si. 9/50, Chakrapani Tika)*

*Sa niruhat uttarm uttren va margen deeyat iti uttarbastih,”*

**A.S. Su. 208/9)**

The Uttar basti is given in both male & female through urinary passage into bladder & in female through vaginal tract to uterine mouth or uterus is known as uttarbasti. As it is given in upper or (uttar) passage i.e urinary or vaginal than the usual anal passage is used after Niruhabasti& is superior in qualities thus is termed as uttarbasti.

## **UTTAR BASTI YANTRA:**

The tool used for giving uttarbasti is known as uttarbastiyantra. There are two main part in the instrument.

1. **Basti putak** (Bag of uttarbasti yantra)- collection of *anshadhidrava*.
2. **Basti netra** (Nozzle of uttarbasti yantra)-inserting *anshadhidrava*.

### **1) Basti putak (Bag of uttarbasti yantra):**

Detailed description about the material i.e urinary bladders or skin of animals, thick cloth etc. to be used and the method for preparation of putaka or bag of general basti (enema) is given in ayurvedika classics. In Shusrutasamhita, the bag of uttarbasti has been told to be small & soft, & should be



of urinary bladders of goat, sheep & hog. In absence of these bladders, cervical skin of birds or the other soft skin can be used.

***Aurabhrah shaukaro va api bastirajasch pujitah,***

***Tadlaabhe prayujeet galcharm tu pachhinaam,***

***Tasya alabhe drute paado mraducharm tato apiva,” (Su. Ci. 37/107)***

## 2) Basti netra (nozzle of uttarbasti yantra):

The *netra* or nozzle of uttarbasti yantra is termed as *puspanetra* in Charak Samhita. The *puspanetra* should be made of any metal like gold, silver, brass, bell metal, white copper, tin or lead, be smooth tapering like cow's tail, having circumference like tip of flower stalk of *jati (Malati)*, *karavira* & the lumen from which mustard seed can pass. This nozzle should have two to three *Karnikas* (ear rings) for tying it with bag (in case of three ear rings, two at this end) & restriction for its excess entry in the passage. The *puspanetra* to be used in females should be ten angulas in length (approximately 10 cm) with the circumference like urethra or index finger & the lumen from which a *mudga seed* can pass easily. The circumference of *puspanetra* (nozzle) & location of its *karnika* (ring) according to age & passage is given here under-----

Age	passage	Circumference of nozzle & size of lumen	location of ring at the end to be Inserted in the
Girl	urinary	flower stalk of <i>Malati</i> Lumen size of mustard seed (~1 cm)	one angulas
Adult Women	urinary	size of urethral meatus, lumen size of <i>mudga</i> seed (~2 cm)	two angulas
Adult Women	vaginal	Index finger, lumen size of of <i>mudga</i> seed (~4 cm)	four angulas

## METHOD OF GIVING UTTAR BASTI IN WOMEN

***“uttanayah shayanayah samyak sankochya sakthini,***

***Athasyaah pradyennotram anuvansgam sukham” (Ca.ci 9/67)***

The women should be placed in supine position with flexed thighs & elevated knees, then the nozzle should be inserted in urinary or vaginal passage slowly & with steady hand, following direction of the passage. In day & night (24 hrs) total two three or four bastis should be continued for three nights (days and night) with gradual increase in the quantity of oleaginous substance. After giving rest for three days. For giving uttarbasti in vaginal passage a nozzle with three *Karnikas* should be introduced & vaginal orifice pressed properly, then bag of basti should be compressed slowly.

## **BEST PERIOD FOR USE OF UTTAR BASTI IN WOMEN:**

*“strinam artavkaletu pratikarm tad acharet,*

*Garbhasna sukham sneham tada addate hriya api avrata” (Ca. si. 9/62)*

The uttarbasti should be given to the women after cleansing her body by use of two or three *Asthapanabasties*, during *Artava kala or Ritukala* (just after menstrual bleeding is over) because during this period uterus and vagina are free from coverings and their orifices (orifices of fine srotasas) are open, thus receive unctio easily.

## **QUANTITY OF DECOCTION & OLEAGINOUS SUBSTANCE FOR UTTAR BASTI:**

The quantity of oleaginous substance, according to Acharya Charaka is ½ pala (two tola) & according to Acharya Shusruta, the quantity of oleaginous substance of uttarbasti to be given in urinary passage should be one prasrata (palm of hand stretched out and hollowed as it to hold liquid or handful) filled up to the base of fingers, for all severe diseases during all the ages of strong women. If the strength of disease or patient is medium or less the quantity should be half or less to be decided by the physician with his discretion. The quantity of oleaginous substance to be used for cleansing the uterus should be double or two handfuls.

*“Tenaj vastiyukten snehsyardhpalam nayet,*

*Yathavayo visheshed snehmatraam vikalpya vaa,,” (Ca.Si 9/52)*

*“Snehasya prasratam ch atra swaangulimulm sammitam,*

*Deyam pramanam parmarvaag buddhi vikalpam,,”*

(Su. Ci. 38/106)

If cleansing is needed by uttarbasti, then for the women, who have not delivered but are of reproductive age, two handfuls of decoction should be used for cleansing the uterus. In girls of less than twelve years of age or the delivered or undelivered women of reproductive age, the quantity of decoction should be one handful for cleansing of urinary bladder. The handful measure should be taken with one's own hand.

Vagabhatta has prescribed one pala & two karsas dose for women & girls:

*“Yonimargeshu naarinaam snehmatra drwipaaliki,*

*Mutramaarge palonmanam balanam cha drikarshiki,,”*

(Sa. S. U. kh. 7/9) & (Ba. P. Pu. Kh. 5/181)

Sarangadhara & Bhavamisra says that the dose of oleaginous substance should be two & one pala for vaginal & urinary passage respectively for adult women & two karsas for urinary passage of girls.

## **BENEFITS OF UTTAR BASTI:**

According to Acharya Vagabhatta, the seat of *Vata* is below umbilicus & *Basti* is best form of *Samsbodhanacikitsa*.

**“Sharirjanaam dosanaam kramed param aushdham,  
Bastirvireko vamanam tatha tailam ghratam madhu,,”**

**(A.H. Su. 1/25)**

On the basis of *Tridoshaprakopa*, *Samsbodhanacikitsa*s of three types, for *Vatadoshabasticikitsa*, for *Pitta doshavirechanacikitsa*& for *kaphadoshavamanacikitsa* is to be performed.

**“Doshah kadachit kupyanti jita langhanpachnai,  
Jita sansodhanairye tu n tesham punrubbhav,,”**

**(Ca.Su. 16/20)**

*Langhana*&*Pachana* pacify the aggravated state of *dosha*, but it remains at it's usual site & recurs when favourable circumstances arise but by evacuation of dosha from their site is eliminated & thus the chances of recurrence become remote.

**“garbh yonistada shighram jite grihyati maarute,  
Bastijeshu vikareshu yonivibhramjeshu cha,,  
Yonishuleshu tivreshu yonivyaapatsw asragdre,,  
Aprasavti mutre cha bindum bindu sravati api,  
Vidyat utaram bastim tathasva aushadhsanskritam,,”**

**(Ca. Si. 9/63-64)**

In Carakasamhitacikitsasthana 30<sup>th</sup> chapter, the cause of twenty types of *Yonivyapadas* is vitiation of *Apanvayu*, as their functions are ejaculation of semen, voiding of urine & stool, elimination of menstrual & parturition of foetus. Hence in the treatment of *Yonivyapadas*, Acharyas have described about different types of Uttar basti, *Aushadhidravayas* given by *uttarbasti* not only alleviates *vatadosha* but also suppresses *pitta*&*kapha* with its *virya*&*samskara*.

Due to suppression (normalization of vayu) by the use of *uttarbasti*, the yoni retains the *garbha*(conceptus) quickly or the women conceives immediately. It is also beneficial in severe dysuria, pain in urinary bladder or groin region, discharge of urine drop by drop, utero vaginal prolapse, severe vaginal pain & other gynaecological disorders(*yonivyapadas*) menometorrhagia (*Asrigdara* or irregular bleeding), amenorrhoea, dysmennorrhoea, other menstrual disorders which are difficult to cure and retention of placenta.

In the dissertation, according to symptomatic basis of the disease local cleanliness of vagina or *yoni marga*& for maintenance of local hygiene vaginal douche has been used.

Usually in *Ayurvedic* classics, vaginal douche is not used in terms of *uttarbasti*, but as it is restricted up to local area, hence in the present dissertation, *Uttar basti* is used in terms of *yoni prakshalan* or vaginal douche, for the purpose of cleansing, *Niruha* type of basti is used. In ayurvedic classics *uttarbasti* serve the purpose of

oleation hence it is used as *Anuvasana* type, but some *Acharyas* accept it as *Nirubavat* as it also serve the purpose of *Shodhana*. In the present context, *shodhana* is kept in mind therefore *uttarbasti* is used in terms of *Nirubavat*.

**“Uttarbastir api snehane anuvasan vat ch shodhane niruhavt api cha kechit ahuh,”**

(A. S. Su. 28/9)

*Shodhanacikitsa* is of two-fold:

**1) Sarvadahika** (systemic)

**2) Sthanika** (local)

*Sarvadahikashodhana* helps to regulate the physiology of body. *Sthanikashodhana* means medicinal or surgical curettage. Ayurvedic texts stress on medicinal curettage which help to establish “*avyapannatva of yoni-garbhashaya*”. i.e healthy condition of genital tract, from modern point of view this method may be indicated under following conditions

- 1) disorders in nidation
- 2) uterine hostility
- 3) unovulatory cycles

Presently for *yoni prakshalan*, (*douching*) apparatus used is enema pot. also in this dissertation for the purpose of vaginal douching enema pot is used. Following are the parts of enema pot:

- 1) ENEMA POT:** It is a container made up of metal or plastic, whose upper part is open & lower part has opening in which about 5 cm thick pipe has been attached. It is used for storing *Aushadhidravayas*. It's storing capacity is about 1000 ml.
- 2) RUBBER TUBE:** It is approximately 1m long tube having opening at both ends. One of it's opening is connected to lower end of enema pot and other opening is connected with nozzle.
- 3) NOZZLE:** It is approximately 10-15 cm long & 2 cm thick made up of plastic. it has 2 opening, one at the base & one at the front part. The opening at base is connected to rubber tube & this juncture has a knob (Tap screw) for opening and closing. For douching, nozzle is inserted in yoni (vagina) approximately 4 *Angulas* and then knob is opened which causes the medicated *Dravyas* in the enema pot to flow through rubber tube, then to nozzle from where it spout & keeps the vaginal tract clean flushed & douched.

### PROBABLE ACTION OF DRUG

According to the principle **Nahi vatadritte yoninaarinaam sampradushyati (ca.ci 30/115)** All types of gynaecological disorders evolves from the vitiation of *VataDosha*. In the context of *Sweta Pradara*, it is the *Chalaguna* of the *vata* along with *pichhil, shita&guru*guna of vitiated *kaphadosha* which causes hypersecretion of mucous. Hence the overall effect of the compound should be *Kapha-vatashamak*, which indeed possess anti-inflammatory action on vaginal wall.

The overall *rasa* of the compound is *kashaya* and *Anurasa Tikta&Katu* which causes *Sthambhana*, *Sangrahi*, *Sandbankar* effect. It also helps in *Vrana-ropana* (healing effects) & *shodhana* (purifying effects) on vaginal tract soreness. It also has *vishaghna* (detoxifying), antimicrobial effect which helps to combat the vaginal infection, & heals the vaginal tissues. The phytoestrogenic&phytoprogestenic helps to enhance the thickness of endometrium at desired levels. It also works as uterine tonic which provide strength to whole genital tract.

With the *katwipaka* of compound it digests the secreted mucous, *Ama* & provokes the digestive fire. The analytical study of drugs shows that it provides essential nutrients. The bioflavanoids, glucosides, tannins & essential vitamins of the compound upgrade the nutritional picture & improves the anabolic activity of body.

The *Shitavirya* of compound counteract the specific *chalaguna* of *vataas chala&sheetaguna* are inversely proportional. That's why they help in *stambhana karma*. The *laghu&rukshaguna* combat the vitiated *kaphadosha*.

With the local application of *Lodhra* in the form of vaginal douche has the *kashaya* (astringent) property which alleviates *Yonidosha*, *Yonirava* (vaginal discharge) & *garbbhashayashotha* (uterine inflammation). It exerts antinfective action against wide range of microbes, reduces discharge raises patient's immunity, thus prevents recurrence.

Both oral & local administration of drug counteracts the etiopathogenesis of *Sweta Pradara* in the following manner. In *svetapradara*, *Srotodushti* is of *Atipravrittata* (hyperaction) type, causing vitiated *Shleshma* to come out from *Yoni* due to peculiar *chalaguna* of *vata*. As the overall *rasa* of compound is '*kashaya*'&*gunasheeta* (opposite of *chalaguna*) also *Kashaya dranya* (astringent) have property of *Stambhana&Sheetata*. This helps to reduce the excess vaginal secretion.

### Conclusive Remarks

The overall *rasa* of the compound is *kashaya* and *Anurasa Tikta&Katu* which causes *Sthambhana*, *Sangrahi*, *Sandbankar* effect. It also helps in *Vrana-ropana* (healing effects) & *shodhana* (purifying effects) on vaginal tract soreness. It also has *vishaghna* (detoxifying), antimicrobial effect which helps to combat the vaginal infection, & heals the vaginal tissues. The phytoestrogenic&phytoprogestenic helps to enhance the thickness of endometrium at desired levels It also works as uterine tonic which provide strength to whole genital tract.

With the *katwipaka* of compound it digests the secreted mucous, *Ama* & provokes the digestive fire. The analytical study of drugs shows that it provides essential nutrients. The bioflavanoids, glucosides, tannins & essential vitamins of the compound upgrade the nutritional picture & improves the anabolic activity of body.

The *Shitavirya* of compound counteract the specific *chalaguna* of *vataas chala&sheetaguna* are inversely proportional. That's why they help in *stambhana karma*. The *laghu&rukshaguna* combat the vitiated *kaphadosha*.

With the local application of *Lodhra* in the form of vaginal douche has the *kashaya* (astringent) property which alleviates *Yonidosha*, *Yonirava* (vaginal discharge) & *garbbhashayashotha* (uterine inflammation). It exerts antinfective action against wide range of microbes, reduces discharge raises patient's immunity, thus prevents recurrence. Ayurveda has used the term *Pradara*. *Raktapradara* or *Asrigdara* for the discharge of blood from vagina while for discharge of *Sweta* (white) material from vagina, *Sweta pradara* word has been used.

In the 'Brihatrayi' *Sweta Pradara* word is not used. Firstly Acharya Chakrapani in commentary of Ca.Ci 30/116 describe *Sweta pradara* as “*pandure pradre iti swetapradre*”

It is not a separate disease entity but it is a symptom occurring in many diseased conditions. But sometimes this condition become so worse that the other symptoms are neglected by the women & she wants to get rid from this particular symptom. These symptoms also persist without having any specific diseased condition. That's why Acharyas Charaka, Vagabhatta have described only symptomatic treatment.

*Sweta Pradara* word itself indicates its symptom of white vaginal discharge. The *Kapha&Vatadosha* vitiated due to abnormal diet or mode of life or with their own aggravating factors reaches the reproductive organs which has become vulnerable due to excessive coitus, abnormal labour, frequent labour, multiparity & abortions, settles the *dosha*& produces thick foul smelling vaginal discharges. The vitiated *Kaphadosha* has a property of *Prithvi Mahabbhut* (earth element) which causes *ghanata*(thickening) & *gandha*(smell) in vaginal discharges. This pathogenesis of *Sweta Pradara* has similarity with *ShleshmalaYonivyapad pathogenesis*. It has resemblance with etymology “*pandure pradre iti swetapradre*” Hence statistical analysis of proposed drug on symptoms of *ShleshmalaYonivyapad* has also been studied.

## References

- 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, 4<sup>th</sup> edition,Varanasi,Chaukhambha Vishwabharati, 1988. p.764.
- Yoga Ratnakar: Hindi Commentory by Achrya Laxmipati Shastri, Published by chaukhambha Sanskrita Series Office, Varanasi. 2<sup>nd</sup> Edition, 1973 p.246
- Acharya 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, 17<sup>th</sup> edition, Varanasi, Chaukhambha Publications, 2004 p.853-854.
- Acharya Vagbhat, Astanga Hridaya, Hindi Translation by Atridev Gupta, 10<sup>th</sup> edition Varanasi, Chaukhambha Sanskrita Sansthan, 1987 p.839.
- Tiwari P.V., Ayurvediya Prasuti tantra & Stri Roga, II<sup>nd</sup> Part, 2<sup>nd</sup> edition, Varanasi, Chaukhambha Orientalia, 2000, reprint 2005, p.266-268.
- Tiwari P.V., Ayurvediya Prasuti tantra & Stri Roga, II<sup>nd</sup> Part, 2<sup>nd</sup> edition, Varanasi, Chaukhambha Orientalia, 2000, reprint 2005, p.266-268.
- Dawn C.S., Text Book of Gynaecology, Contraception & Demography, 14<sup>th</sup> 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
- Rigveda,Samaveda,AtharvavedaPt.Sriram Shankar Bhattacharya, Fifth edition,1969.Chaukhambha publication